GREAT PLAINS
NATURAL GAS CO.
A Division of MDU Resources Group, Inc.

705 West Fir Avenue
Mailing Address:
P.O. Box 176
Fergus Falls, MN 56538-0176
(218) 736-6935

June 1, 2018

Mr. Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 Seventh Place East, Suite 350
St. Paul, MN 55101-2147

RE: Annual Depreciation Study
Docket No. G004/D-18-___

Dear Mr. Wolf:

Great Plains Natural Gas Co. (Great Plains), a Division of MDU Resources Group, Inc., herewith electronically files its Annual Depreciation Study pursuant to Minnesota Rules parts 7825.0500 to 7825.0700.

The Annual Depreciation Study updates Great Plains' five-year study from Docket No. G004/D-17-450 to reflect plant in service and book deprecation reserve balances as of December 31, 2017. Overall, the application of the proposed depreciation rates results in an increase of $2,942 from current rates established in Docket No. G004/D-17-450. The composite annual depreciation rate under present rates is 4.31 percent, while the proposed composite depreciation rate is 4.32 percent.

Great Plains requests that the depreciation rates in this annual study be certified effective as of January 1, 2018.

If you have any questions regarding this study, please contact me at (701) 222-7856, or Brian M. Meloy, at (612) 335-1451.

Sincerely,

/s/ *Tamie A. Aberle*

Tamie A. Aberle
Director of Regulatory Affairs

cc: Brian M. Meloy

2018 TECHNICAL DEPRECIATION UPDATE
Great Plains Natural Gas Co.

TECHNICAL UPDATE
Calculated Annual Depreciation Accrual Rates Applicable to Plant in Service as of December 31, 2017

Prepared May 2018

Concentric Advisors, ULC
200 Rivercrest Drive SE, Ste 277
Calgary, AB Canada T2C 2X5
403.257.5946

Washington, D.C. Office
1300 19th St NW, Ste 620
Washington, DC 20036
202.587.4470

Headquarters
293 Boston Post Rd West, Ste 500
Marlborough, MA 01752
508.263.6200

Chicago, IL Office
350 West Hubbard Street, Ste 600
Chicago, IL 60654
224.999.7372

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SECTION 1

1 STUDY HIGHLIGHTS

Pursuant to request of the Great Plains Natural Gas Co. ("GPNG" or the "Company"), Concentric Energy Advisors ("Concentric") completed a Technical Update ("the Update") to the results of the depreciation study filed by GPNG in May 2017. The results of the Update contained herein relate to the natural gas transmission, distribution and General Plant assets as of December 31, 2017. The purpose of the update is to determine the annual depreciation accrual rates and amounts for ratemaking purposes applicable to the original cost of plant as of December 31, 2017.

The depreciation rates in this update have been calculated using the same depreciation methods, procedures and techniques employed in the last GPNG depreciation study. Additionally, the depreciation rate calculations are based on the average service life, retirement dispersion and net salvage estimates developed in the last full depreciation study.

The Update results are summarized at an aggregate functional group level as follows:

Summary of Original Cost, Currently Approved Accrual Percentages and Amounts, and Updated Accrual Percentage and Amounts

Plant Group / Accounts	Original Cost	Annual Accrual		Annual Accrual Updated	
Transmission Plant	$2,555,239	1.75%	$44,717	1.23%	$31,512
Distribution Plant	$43,806,948	4.57%	$2,001,978	4.56%	$1,998,034
General Plant	$6,334,250	3.60%	$228,033	3.92%	$248,124
TOTAL	**$52,696,437**	**4.31%**	**$2,274,728**	**4.32%**	**$2,277,670**

SECTION 2

2 BASIS OF THE UPDATE

2.1 Scope

Concentric has been retained to develop a technical Update to the depreciation study completed in 2017 for GPNG. The purpose of the Update was to determine the annual depreciation accrual rates and amounts for ratemaking purposes applicable to the actual surviving original cost as of December 31, 2017. The depreciation accrual rates presented herein are based on generally-accepted methods and procedures for calculating depreciation.

The annual depreciation accrual rates and amounts are based on the broad group straight line method of depreciation using the Average Life Group ("ALG") procedure and were applied using the remaining life technique. The calculations were based on the actual plant accounting ledger values as at December 31, 2017. Inherent in the application of the depreciation parameters with the remaining life technique, the accumulated depreciation accounts are trued up of any variances between the actual book accumulated depreciation reserve and calculated accrued depreciation requirement are amortized over the composite remaining life of each group of assets.

2.1.1 Purpose of a technical update

Concentric notes that the depreciation rates should be reviewed periodically as plant and accumulated depreciation account activity may result in materially different depreciation rates. The survivor curves, net salvage percentages, and amortization periods determined in the Company's most recent full depreciation study should be the basis for the periodic recalculations. Complete depreciation studies, which re-evaluate these parameters, should be performed every three to five years.

When depreciation rates are calculated utilizing a remaining life technique, the depreciation rate is established by dividing the undepreciated value of each group of assets (after consideration to the net salvage requirements) by the composite remaining life of the group of assets. This calculation is made for each vintage surviving investment as of the date of the study (or Update), and then composited into a calculation for the account or group as a whole. As follows, this calculation requires two estimates:

- The actual booked accumulated depreciation for each vintage within each account. GPNG does not track the booked accumulated depreciation reserve by vintage within each account. The depreciation expense is calculated at an account level and booked to accumulated depreciation at the same account level. Concentric notes that this is the practice employed by virtually all regulated utilities. As such, the accumulated depreciation by account, is allocated within the account, to each vintage on the basis of the calculated accumulated by vintage. The calculated accumulated depreciation is a function of the estimated survivor curve, the average service life estimate, the net salvage estimates and the achieved age of each vintage.

- The estimated remaining life of each vintage with each account. The estimated remaining life of each account is a direct function of the achieved age of each vintage, the estimated survivor curve and the average service life estimate.

Once the above two estimates are determined (the allocated booked reserve by vintage and the average remaining life of each vintage) an annual accrual requirement for each vintage is determined by dividing the net book value for each vintage (considering the estimated future salvage requirements) by the average remaining life of the vintage. The annual requirement for each vintage is summed at the account level and divided into the sum of the accounts original cost surviving as of the study date to determine a required remaining life depreciation accrual rate for the account.

The calculations as described above are dependent upon the actual total account book depreciation and the estimated remaining life of each vintage. The depreciation rate can vary year over year due to plant addition and retirement activity. Additionally, the age of retirements in any given year can cause a required adjustment to the depreciation rate going forward. Therefore, annual technical updates are often required by regulators.

2.2 Information Provided by GPNG

GPNG has provided Concentric with the required information as of December 31, 2017 for all accounts being studied in this Update. The information includes the following:

- current balances by vintage year for each account (aged balances). The balances provide the amount of investment sorted by installation year currently in operation. GPNG arranged for the prior depreciation consultant (AUS Consultants) to forward the aged balances and service life files to Concentric to avoid the time and costs re-creating these existing files through December 31, 2016. The actual 2017 transaction plant accounting data was forwarded directly from GPNG to Concentric so that the 2016 files could be updated through December 31, 2017;
- the actual booked accumulated depreciation amounts by account as of December 31, 2017 were forwarded directly from GPNG to Concentric; and
- the last full depreciation study was provided to Concentric to use in the determination of prior depreciation practices and approved depreciation parameters.

2.3 Data Reconciliation

The above data was reviewed and reconciled to Company control schedules to ensure accuracy and reasonableness in use of the calculations developed in this Update. These checks include:

- that the surviving investment by account equals (or can be reconciled to) the Company's gross plant in service and accumulated depreciation ledger balances;
- that the surviving investment in each vintage is not negative. In other words, this check confirms that the sum of retirements from any given vintage have not exceeded the amount of plant additions to the vintage; and
- that this report reflects the consolidation of the "Mains" and "Services" plant accounts.

SECTION 3

3 DEVELOPMENT OF THE REQUIRED DEPRECIATION RATES

3.1 Depreciation

The development of the depreciation calculations requires the input of an Average Service Life, Iowa curve and Net Salvage recommendations (the "depreciation parameters"). Additionally, to complete the depreciation calculations, the calculation methods must be established. Specifically, the selection of the depreciation method must establish three types of additional input:

1. the choice of a depreciation method;
2. a basis upon which to apply the method, and
3. in the case of group assets, a procedure to use in grouping the assets.

In this Update, the depreciation rates for GPNG have been calculated in accordance with the Straight-Line method, the Average Life Group procedure and applied using the Remaining Life technique.

Depreciation in public utility regulation, is the loss in service value not restored by current maintenance, incurred with the consumption or prospective retirement of utility plant in service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among causes to be given consideration are: wear and tear; deterioration; action of the elements; inadequacy; obsolescence; changes in the art; changes in demand; and the requirements of public authorities. When considering the action of the elements, the average service life calculations have considered large catastrophic events that have occurred and impacted the life estimates of utilities across North America. The average service life of utilities has been influenced by events including forest fires, earthquakes, tornadoes, ice storms, wind storms, large scale flooding, fires, intentional actions of third parties and other natural forces of nature.

Depreciation, as used in accounting, is a method of distributing fixed capital costs less net salvage over a time period, by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing natural gas utility service. Normally, the time over which the fixed capital cost is allocated to the cost of service, is equal to the time over which an item renders service, that is the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the Straight-Line method of depreciation.

The calculation of annual and accrued depreciation based on the Straight-Line method requires the estimation of survivor curves and is described in the following sections of this Update. The development of the proposed depreciation rates also requires the selection of group depreciation procedures, as discussed below.

This Update uses the estimates as approved in the last full GPNG depreciation study. Imbedded in the remaining life calculations, the variances between the calculated accrued depreciation and the book accumulated depreciation are amortized over the composite remaining life of each account.

SECTION 4

4 RESULTS OF UPDATE

4.1 Qualification of Results

The calculated annual and accrued depreciation are the principal results of the update. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage, and for the change of the composition of property in service. The annual accrual rates and the accrued depreciation were calculated in accordance with the Straight-line method, using the ALG procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

4.2 Description of Detailed Tabulations

The following tables provides summaries by account of the original cost of investment, calculated and booked accumulated depreciation amounts, the required amount of annual depreciation expense, the required depreciation rate to be applied against the original cost of the account and the estimated composite remaining life of the surviving plant in service.

The detailed calculations of annual depreciation applicable to depreciable assets, as of December 31, 2017, are presented in account sequence starting in Section 5. The tables indicate the estimated average survivor curves used in the calculations. The tables set forth (for each installation year) the original cost, calculated accrued depreciation and the calculated annual accrual.

GREAT PLAINS NATURAL GAS CO.

TABLE 1. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN GAS PLANT AS OF DECEMBER 31, 2017

- TOTAL -

ACCOUNT	DESCRIPTION	ESTIMATED SURVIVOR CURVE	NET SALVAGE PERCENT	SURVIVING ORIGINAL COST AS OF 12/31/2017	CALCULATED ACCRUED DEPRECIATION	BOOK RESERVE	ANNUAL ACCRUAL AMOUNT		RATE	REMAINING LIFE
TRANSMISSION PLANT										
365.2	RIGHTS OF WAY	50-R2.5	0	158,152	99,534	124,001	1,182		0.75	18.5
367.0	TRANSMISSION MAINS	50-R3	-20	1,541,179	1,163,516	1,461,591	8,838		0.57	18.5
369.0	MEAS & REG STATION EQUIPMENT	40-R0.5	-10	855,908	158,200	206,134	21,492		2.51	33.3
TOTAL TRANSMISSION PLANT				**2,555,239**	**1,421,250**	**1,791,726**	**31,512**		**1.23**	
DISTRIBUTION PLANT										
374.2	RIGHTS OF WAY	50-R2.5	0	17,654	9,437	8,791	389		2.20	23.3
375.0	DISTR. MEAS & REG STATION STRUCTURES	85-S1.5	-5	32,251	9,155	57,085	916	1	2.84	25.2
376.0	MAINS	46-R3	-55	19,426,616	9,246,853	9,867,471	606,817		3.12	31.9
378.0	MEAS & REG STATION EQUIP-GENERAL	N/A	-25	511,305	342,068	351,279	64,169	2	12.55	2.6
379.0	MEAS & REG STATION EQUIP-CITY GATE	28-R3	-5	484,883	129,200	113,979	19,540		4.03	20.9
380.0	SERVICES	39-R3	-75	15,937,760	8,226,650	9,392,445	612,601		3.84	27.5
381.0	METERS & METER INSTALLATIONS	N/A	-25	6,438,021	3,612,300	3,905,077	638,008	3	9.91	4.4
383.0	HOUSE REGULATORS	N/A	-5	774,939	429,953	439,509	51,301	3	6.62	6.7
385.0	INDUSTRIAL MEAS. & REG. STATION EQUIPMENT	40-S4	0	162,784	10,221	13,804	3,884		2.39	37.5
387.1	CATHODIC PROTECTION EQUIPMENT	25-R3	0	9,235	3,661	3,249	410		4.44	15.1
387.2	OTHER EQUIPMENT	30-R3	0	11,498	9,594	11,498	-		-	5.0
TOTAL DISTRIBUTION PLANT				**43,806,948**	**22,029,092**	**24,164,187**	**1,998,034**		**4.56**	
GENERAL PLANT										
390.0	GENERAL STRUCTURES & IMPROVEMENTS	45-R4	0	2,528,697	650,397	973,232	42,388		1.68	33.4
391.1	OFFICE FURNITURE & EQUIPMENT	16-SQ	0	95,317	85,055	58,979	3,080		3.23	3.4
391.3	COMPUTER & ELECTRONIC EQUIPMENT	4-SQ	0	61,617	25,653	-	15,404	4	25.00	2.3
392.1	TRANSPORTATION EQUIPMENT - TRAILERS	12-R1	10	31,167	7,596	25,947	171		0.55	8.8
392.2	TRANSPORTATION EQUIPMENT	7-L2	20	1,380,893	499,561	648,860	105,877		7.67	3.8
394.0	TOOLS, SHOP, & GARAGE EQUIPMENT	20-SQ	0	628,270	437,665	222,312	42,937		6.83	12.1
396.1	POWER OPERATED EQUIPMENT - TRAILERS	6-L0	65	151,442	13,851	33,224	3,328		2.20	4.4
396.2	POWER OPERATED EQUIPMENT	6-L0	65	1,101,925	100,782	300,745	13,605		1.23	4.4
397.0	COMMUNICATION EQUIPMENT	18-SQ	0	303,583	249,308	194,381	19,157		6.31	6.4
398.0	MISCELLANEOUS EQUIPMENT	25-SQ	0	51,339	35,724	18,341	2,176		4.24	15.2
TOTAL GENERAL PLANT				**6,334,250**	**2,105,592**	**2,476,020**	**248,124**		**3.92**	
TOTAL GAS PLANT STUDIED				**52,696,437**	**25,555,934**	**28,431,933**	**2,277,670**		**4.32**	
PLANT NOT STUDIED										
301.0	ORGANIZATION COSTS			5,006						
302.0	FRANCHISE COSTS			73,680						
303.0	INTANGIABLE ASSETS			2,783,783						
365.0	LAND			5,585						
374.0	LAND			2,978						
389.0	LAND & LAND RIGHTS GENERAL			48,658.66						
TOTAL PLANT				55,616,128						

Notes:

1 Interim Retirement Rate. Service lives vary.

2 Based upon anticipated district regulator change out / eliminations.

3 Based upon 20 ERT battery life and remaining PVC program term 2016 - 2026.

4 Currently approved rate.

All currently approved rates include salvage portion.

GREAT PLAINS NATURAL GAS CO.

TABLE 1A. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN GAS PLANT AS OF DECEMBER 31, 2017

- LIFE -

ACCOUNT	DESCRIPTION	ESTIMATED SURVIVOR CURVE	NET SALVAGE PERCENT	SURVIVING ORIGINAL COST AS OF 12/31/2017	CALCULATED ACCRUED DEPRECIATION	BOOK RESERVE	ANNUAL ACCRUAL AMOUNT		RATE	REMAINING LIFE
TRANSMISSION PLANT										
365.2	RIGHTS OF WAY	50-R2.5	0	158,152	99,534	124,001	1,182		0.75	18.5
367.0	TRANSMISSION MAINS	50-R3	0	1,541,179	969,597	1,164,039	11,227		0.73	18.5
369.0	MEAS & REG STATION EQUIPMENT	40-R0.5	0	855,908	143,818	215,507	18,408		2.15	33.3
TOTAL TRANSMISSION PLANT				**2,555,239**	**1,212,949**	**1,503,548**	**30,817**		**1.21**	
DISTRIBUTION PLANT										
374.2	RIGHTS OF WAY	50-R2.5	0	17,654	9,437	8,791	389		2.20	23.3
375.0	DISTR. MEAS & REG STATION STRUCTURES	85-S1.5	0	32,251	8,408	25,820	872	1	2.84	27.3
376.0	MAINS	46-R3	0	19,426,616	5,965,712	6,778,294	359,818		1.85	31.9
378.0	MEAS & REG STATION EQUIP-GENERAL	N/A	0	511,305	273,654	308,692	51,335	2	12.55	4.6
379.0	MEAS & REG STATION EQUIP-CITY GATE	28-R3	0	484,883	123,048	136,559	16,119		3.32	20.9
380.0	SERVICES	39-R3	0	15,937,760	4,700,943	5,280,476	356,209		2.23	27.5
381.0	METERS & METER INSTALLATIONS	N/A	0	6,438,021	1,724,088	3,460,968	510,406	3	9.91	9.2
383.0	HOUSE REGULATORS	N/A	0	774,939	240,998	439,509	48,858	3	6.62	10.9
385.0	INDUSTRIAL MEAS. & REG. STATION EQUIPMENT	40-S4	0	162,784	14,248	13,804	4,091		2.51	36.5
387.1	CATHODIC PROTECTION EQUIPMENT	25-R3	0	9,235	3,661	3,249	410		4.44	15.1
387.2	OTHER EQUIPMENT	30-R3	0	11,498	9,594	11,498	-		-	5.0
TOTAL DISTRIBUTION PLANT				**43,806,948**	**13,073,791**	**16,467,661**	**1,348,507**		**3.08**	
GENERAL PLANT										
390.0	GENERAL STRUCTURES & IMPROVEMENTS	45-R4	0	2,528,697	650,397	973,232	42,388		1.68	33.4
391.1	OFFICE FURNITURE & EQUIPMENT	16-SQ	0	95,317	85,055	58,979	3,080		3.23	3.4
391.3	COMPUTER & ELECTRONIC EQUIPMENT	4-SQ	0	61,617	25,653	-	15,404	4	25.00	2.3
392.1	TRANSPORTATION EQUIPMENT - TRAILERS	12-R1	0	31,167	8,440	25,947	465		1.49	8.8
392.2	TRANSPORTATION EQUIPMENT	7-L2	0	1,380,893	624,451	648,860	184,194		13.34	3.8
394.0	TOOLS, SHOP, & GARAGE EQUIPMENT	20-SQ	0	628,270	437,665	222,312	42,937		6.83	12.1
396.1	POWER OPERATED EQUIPMENT - TRAILERS	6-L0	0	151,442	39,574	33,224	25,769		17.02	4.4
396.2	POWER OPERATED EQUIPMENT	6-L0	0	1,101,925	287,949	300,745	162,820		14.78	4.4
397.0	COMMUNICATION EQUIPMENT	18-SQ	0	303,583	249,308	194,381	19,157		6.31	6.4
398.0	MISCELLANEOUS EQUIPMENT	25-SQ	0	51,339	35,724	18,341.01	2,176		4.24	15.2
TOTAL GENERAL PLANT				**6,334,250**	**2,444,216**	**2,476,020**	**498,390**		**7.87**	
TOTAL GAS PLANT STUDIED				**52,696,437**	**16,730,956**	**20,447,228**	**1,877,714**		**3.56**	
PLANT NOT STUDIED										
301.0	ORGANIZATION COSTS			5,006						
302.0	FRANCHISE COSTS			73,680						
303.0	INTANGIABLE ASSETS			2,783,783						
365.0	LAND			5,585						
375.0	LAND			2,978						
389.0	LAND & LAND RIGHTS GENERAL			48,658.66						
TOTAL PLANT				55,616,128						

Notes:

1 Interim Retirement Rate. Service lives vary.

2 Based upon anticipated district regulator change out / eliminations.

3 Based upon 20 ERT battery life and remaining PVC program term 2016 - 2026.

4 Currently approved rate.
All currently approved rates include salvage portion.

GREAT PLAINS NATURAL GAS CO.

TABLE 1B. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN GAS PLANT AS OF DECEMBER 31, 2017

- NET SALVAGE -

ACCOUNT	DESCRIPTION	ESTIMATED SURVIVOR CURVE	NET SALVAGE PERCENT	SURVIVING ORIGINAL COST AS OF 12/31/2017	CALCULATED ACCRUED DEPRECIATION	BOOK RESERVE	ANNUAL ACCRUAL AMOUNT	RATE
TRANSMISSION PLANT								
365.2	RIGHTS OF WAY	50-R2.5	0	158,152	-	-	-	-
367.0	TRANSMISSION MAINS	50-R3	-20	1,541,179	193,919	297,552	(2,389)	(0.16)
369.0	MEAS & REG STATION EQUIPMENT	40-R0.5	-10	855,908	14,382	(9,374)	3,084	0.36
TOTAL TRANSMISSION PLANT				**2,555,239**	**208,301**	**288,178**	**695**	**0.02**
DISTRIBUTION PLANT								
374.2	RIGHTS OF WAY	50-R2.5	0	17,654	-	-	-	-
375.0	DISTR. MEAS & REG STATION STRUCTURES	85-S1.5	-5	32,251	747	31,265	44	-
376.0	MAINS	46-R3	-55	19,426,616	3,281,141	3,089,177	246,999	1.27
378.0	MEAS & REG STATION EQUIP-GENERAL	N/A	-25	511,305	68,414	42,587	12,834	-
379.0	MEAS & REG STATION EQUIP-CITY GATE	28-R3	-5	484,883	6,152	(22,580)	3,421	0.71
380.0	SERVICES	39-R3	-75	15,937,760	3,525,707	4,111,969	256,392	1.61
381.0	METERS & METER INSTALLATIONS	N/A	-25	6,438,021	1,888,212	444,109	127,602	-
383.0	HOUSE REGULATORS	N/A	-5	774,939	188,955	-	2,443	-
385.0	INDUSTRIAL MEAS. & REG. STATION EQUIPMENT	40-S4	0	162,784	(4,027)	-	(207)	(0)
387.1	CATHODIC PROTECTION EQUIPMENT	25-R3	0	9,235	-	-	-	-
387.2	OTHER EQUIPMENT	30-R3	0	11,498	-	-	-	-
TOTAL DISTRIBUTION PLANT				**43,806,948**	**8,955,301**	**7,696,526**	**649,527**	**1.48**
GENERAL PLANT								
390.0	GENERAL STRUCTURES & IMPROVEMENTS	45-R4	0	2,528,697	-	-	-	-
391.1	OFFICE FURNITURE & EQUIPMENT	16-SQ	0	95,317	-	-	(0)	-
391.3	COMPUTER & ELECTRONIC EQUIPMENT	4-SQ	0	61,617	-	-	-	-
392.1	TRANSPORTATION EQUIPMENT - TRAILERS	12-R1	10	31,167	(844)	-	(293)	(0.94)
392.2	TRANSPORTATION EQUIPMENT	7-L2	20	1,380,893	(124,890)	-	(78,317)	(5.67)
394.0	TOOLS, SHOP, & GARAGE EQUIPMENT	20-SQ	0	628,270	-	-	(0)	-
396.1	POWER OPERATED EQUIPMENT - TRAILERS	6-L0	65	151,442	(25,723)	-	(22,441)	(14.82)
396.2	POWER OPERATED EQUIPMENT	6-L0	65	1,101,925	(187,167)	-	(149,215)	(13.55)
397.0	COMMUNICATION EQUIPMENT	18-SQ	0	303,583	-	-	(0)	-
398.0	MISCELLANEOUS EQUIPMENT	25-SQ	0	51,339	-	-	0	-
TOTAL GENERAL PLANT				**6,334,250**	**(338,624)**	**-**	**(250,266)**	**(3.95)**
TOTAL GAS PLANT STUDIED				**52,696,437**	**8,824,978**	**7,984,704**	**399,955**	**0.76**
PLANT NOT STUDIED								
301.0	ORGANIZATION COSTS			5,006				
302.0	FRANCHISE COSTS			73,680				
303.0	INTANGIABLE ASSETS			2,783,783				
365.0	LAND			5,585				
375.0	LAND			2,978				
389.0	LAND & LAND RIGHTS GENERAL			48,658.66				
TOTAL PLANT				55,616,128				

SECTION 5

5 DETAILED DEPRECIATION CALCULATIONS

GREAT PLAINS NATURAL GAS CO.

Account #: 365.2 - TRANSMISSION - RIGHTS OF WAY

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R2.5
ASL: 50
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1965	4,066.02	3,183	3,965.50	0.9753	100.52	10.86	9.26	52.5
1966	104,001.39	80,536	100,332.22	0.9647	3,669.17	11.28	325.24	51.5
1967	4,208.14	3,222	4,013.41	0.9537	194.73	11.72	16.61	50.5
1976	3.00	2	2.51	0.8356	0.49	16.46	0.03	41.5
1981	547.10	332	414.00	0.7567	133.10	19.63	6.78	36.5
1985	61.73	34	42.46	0.6879	19.27	22.39	0.86	32.5
1999	1,450.28	483	602.34	0.4153	847.94	33.33	25.44	18.5
2000	2,732.55	865	1,077.27	0.3942	1,655.28	34.18	48.43	17.5
2003	41,081.82	10,877	13,551.18	0.3299	27,530.64	36.76	748.90	14.5
TOTAL	158,152.03	99,534	124,001.00		34,151.00		1,181.55	

COMPOSITE ANNUAL ACCRUAL RATE	0.75%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.78
COMPOSITE AVERAGE AGE (YEARS)	40.94
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	18.53

GREAT PLAINS NATURAL GAS CO.

Account #: 367 - TRANSMISSION - MAINS

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R3
ASL: 50
Net Salvage: -20%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1966	1,086,580.30	882,132	1,303,896.36	1.0000	0.00	9.41	0.00	51.5
1970	8,044.40	6,222	9,653.28	1.0000	0.00	11.32	0.00	47.5
1971	18,005.73	13,738	21,606.88	1.0000	0.00	11.85	0.00	46.5
1972	4,225.53	3,178	5,070.64	1.0000	0.00	12.40	0.00	45.5
1976	1,809.24	1,275	2,171.09	1.0000	0.00	14.76	0.00	41.5
1977	2,658.13	1,840	3,189.76	1.0000	0.00	15.39	0.00	40.5
1978	122.93	84	147.52	1.0000	0.00	16.04	0.00	39.5
1981	7.50	5	9.00	1.0000	0.00	18.07	0.00	36.5
1986	3,413.47	1,931	3,659.04	0.8933	437.12	21.72	20.12	31.5
1987	84.97	47	88.61	0.8691	13.35	22.49	0.59	30.5
1988	15,177.96	8,115	15,381.46	0.8445	2,832.09	23.27	121.73	29.5
1990	7,026.13	3,534	6,697.45	0.7943	1,733.91	24.85	69.77	27.5
1991	805.75	392	743.33	0.7688	223.57	25.66	8.71	26.5
1993	510.97	232	439.43	0.7167	173.73	27.31	6.36	24.5
1994	4,189.75	1,831	3,469.86	0.6901	1,557.84	28.15	55.34	23.5
1996	654.99	264	500.06	0.6362	285.93	29.86	9.58	21.5
1997	34.74	13	25.38	0.6088	16.31	30.73	0.53	20.5
1998	438.78	161	305.99	0.5811	220.55	31.60	6.98	19.5
2003	73,092.92	20,311	38,495.82	0.4389	49,215.68	36.11	1,363.09	14.5
2013	227,018.27	20,006	37,918.01	0.1392	234,503.91	45.59	5,143.34	4.5
2015	87,276.30	4,286	8,122.50	0.0776	96,609.06	47.54	2,031.96	2.5
TOTAL	1,541,178.76	1,163,516	1,461,591.00		387,823.00		8,838.09	

COMPOSITE ANNUAL ACCRUAL RATE	0.57%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.95
COMPOSITE AVERAGE AGE (YEARS)	39.43
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	18.54

GREAT PLAINS NATURAL GAS CO.

Account #: 369 - TRANSMISSION - MEAS. & REG. STATION EQUIP

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R0.5
ASL: 40
Net Salvage: -10%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1966	31,450.57	21,924	31,422.98	0.9083	3,172.64	12.12	261.84	51.5
1967	2,421.95	1,663	2,383.16	0.8945	280.99	12.54	22.41	50.5
1970	3,945.54	2,581	3,699.31	0.8524	640.79	13.83	46.32	47.5
1972	1,939.04	1,225	1,756.36	0.8234	376.59	14.72	25.58	45.5
1975	467.11	279	400.15	0.7788	113.67	16.09	7.06	42.5
1976	1,565.23	917	1,314.61	0.7635	407.14	16.56	24.58	41.5
1978	3,150.24	1,771	2,538.23	0.7325	927.04	17.51	52.93	39.5
1982	913.24	468	671.16	0.6681	333.40	19.49	17.11	35.5
1983	451.82	226	323.82	0.6515	173.18	20.00	8.66	34.5
1984	233.70	114	163.19	0.6348	93.88	20.51	4.58	33.5
1987	602.12	270	386.43	0.5834	275.90	22.09	12.49	30.5
1988	3,731.27	1,621	2,322.93	0.5660	1,781.47	22.63	78.74	29.5
1991	26,085.44	10,260	14,706.12	0.5125	13,987.87	24.27	576.43	26.5
1992	3,977.45	1,509	2,163.01	0.4944	2,212.18	24.82	89.12	25.5
1993	9,293.25	3,396	4,866.94	0.4761	5,355.63	25.38	210.98	24.5
1994	46,177.86	16,220	23,247.73	0.4577	27,547.92	25.95	1,061.57	23.5
1995	771.37	260	372.59	0.4391	475.92	26.52	17.95	22.5
1996	40,220.96	12,978	18,600.86	0.4204	25,642.20	27.09	946.43	21.5
1997	5,766.13	1,777	2,547.37	0.4016	3,795.38	27.67	137.16	20.5
1998	1,757.64	516	739.92	0.3827	1,193.48	28.25	42.24	19.5
1999	9,401.27	2,624	3,761.06	0.3637	6,580.34	28.84	228.20	18.5
2003	18,967.71	4,175	5,983.76	0.2868	14,880.72	31.20	477.01	14.5
2010	352,403.98	40,545	58,112.19	0.1499	329,532.19	35.40	9,309.36	7.5
2012	121,221.49	10,261	14,706.49	0.1103	118,637.15	36.61	3,240.19	5.5
2013	13,188.03	915	1,311.18	0.0904	13,195.66	37.23	354.48	4.5
2014	24,893.47	1,345	1,928.01	0.0704	25,454.81	37.84	672.72	3.5
2015	95,971.70	3,710	5,317.20	0.0504	100,251.67	38.45	2,607.07	2.5
2017	34,938.40	270	387.04	0.0101	38,045.20	39.69	958.54	0.5

GREAT PLAINS NATURAL GAS CO.

Account #: 369 - TRANSMISSION - MEAS. & REG. STATION EQUIP

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R0.5
ASL: 40
Net Salvage: -10%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
TOTAL	855,907.98	158,200	206,134.00		735,365.00		21,491.75	

COMPOSITE ANNUAL ACCRUAL RATE	2.51%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.24
COMPOSITE AVERAGE AGE (YEARS)	11.35
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	33.28

GREAT PLAINS NATURAL GAS CO.

Account #: 374.2 - DISTRIBUTION - RIGHTS OF WAY

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R2.5
ASL: 50
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1966	880.00	681	634.81	0.7214	245.19	11.28	21.73	51.5
1967	57.85	44	41.26	0.7132	16.59	11.72	1.42	50.5
1968	192.80	146	135.85	0.7046	56.95	12.18	4.68	49.5
1969	2,465.57	1,841	1,715.39	0.6957	750.18	12.66	59.27	48.5
1970	24.30	18	16.68	0.6865	7.62	13.15	0.58	47.5
1974	385.40	268	249.20	0.6466	136.20	15.29	8.90	43.5
1975	160.20	109	101.87	0.6359	58.33	15.87	3.68	42.5
1978	2,137.36	1,381	1,286.72	0.6020	850.64	17.69	48.09	39.5
1979	10.00	6	5.90	0.5902	4.10	18.32	0.22	38.5
1980	23.00	14	13.30	0.5781	9.70	18.97	0.51	37.5
1981	1,005.00	610	568.67	0.5658	436.33	19.63	22.23	36.5
1982	25.00	15	13.83	0.5533	11.17	20.30	0.55	35.5
1983	4.00	2	2.16	0.5405	1.84	20.99	0.09	34.5
1984	2.00	1	1.06	0.5276	0.94	21.68	0.04	33.5
1985	4,225.54	2,333	2,173.59	0.5144	2,051.95	22.39	91.64	32.5
1986	3.00	2	1.50	0.5010	1.50	23.11	0.06	31.5
1987	11.00	6	5.36	0.4874	5.64	23.84	0.24	30.5
1988	10.00	5	4.74	0.4736	5.26	24.58	0.21	29.5
1990	12.00	6	5.35	0.4455	6.65	26.09	0.26	27.5
1991	437.00	202	188.43	0.4312	248.57	26.86	9.26	26.5
1992	712.30	319	296.81	0.4167	415.49	27.63	15.03	25.5
1994	42.00	17	16.26	0.3872	25.74	29.22	0.88	23.5
1995	1,474.25	589	548.67	0.3722	925.58	30.02	30.83	22.5
1996	19.50	7	6.96	0.3570	12.54	30.84	0.41	21.5
1997	226.50	83	77.39	0.3417	149.11	31.66	4.71	20.5
1998	60.00	21	19.57	0.3262	40.43	32.49	1.24	19.5
1999	821.72	274	255.20	0.3106	566.52	33.33	17.00	18.5
2000	19.50	6	5.75	0.2948	13.75	34.18	0.40	17.5

GREAT PLAINS NATURAL GAS CO.

Account #: 374.2 - DISTRIBUTION - RIGHTS OF WAY

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R2.5
ASL: 50
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2007	2,206.80	428	398.78	0.1807	1,808.02	40.30	44.86	10.5
TOTAL	17,653.59	9,437	8,791.00		8,863.00		389.02	

COMPOSITE ANNUAL ACCRUAL RATE	2.20%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.50
COMPOSITE AVERAGE AGE (YEARS)	32.45
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	23.27

GREAT PLAINS NATURAL GAS CO.

Account #: 376 - DISTRIBUTION - STEEL MAINS

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R3
ASL: 46
Net Salvage: -55%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1960	45,803.96	40,708	67,332.04	0.9484	3,664.09	5.12	715.93	57.5
1966	713,217.88	604,536	999,921.81	0.9045	105,565.90	7.01	15,060.26	51.5
1967	1,456,139.76	1,222,539	2,022,117.89	0.8959	234,898.74	7.38	31,831.16	50.5
1968	36,396.60	30,250	50,034.58	0.8869	6,380.15	7.77	821.31	49.5
1969	90,788.97	74,651	123,475.38	0.8774	17,247.53	8.18	2,109.40	48.5
1970	53,165.90	43,221	71,488.46	0.8675	10,918.69	8.60	1,268.92	47.5
1971	24,066.41	19,330	31,972.30	0.8571	5,330.64	9.05	588.81	46.5
1972	35,439.27	28,103	46,483.06	0.8462	8,447.80	9.52	887.13	45.5
1973	51,595.48	40,365	66,764.21	0.8348	13,208.79	10.01	1,319.17	44.5
1974	24,775.57	19,107	31,604.22	0.8230	6,797.92	10.52	645.95	43.5
1975	196,785.93	149,492	247,264.39	0.8107	57,753.80	11.06	5,224.10	42.5
1976	49,770.53	37,213	61,550.65	0.7979	15,593.67	11.61	1,343.51	41.5
1977	16,608.62	12,212	20,198.70	0.7846	5,544.66	12.18	455.32	40.5
1978	55,385.38	40,012	66,180.91	0.7709	19,666.43	12.77	1,540.25	39.5
1979	66,196.44	46,945	77,648.67	0.7568	24,955.81	13.38	1,865.47	38.5
1980	43,613.65	30,335	50,175.34	0.7422	17,425.82	14.00	1,244.26	37.5
1981	80,857.82	55,107	91,149.42	0.7273	34,180.20	14.65	2,333.22	36.5
1982	36,712.93	24,494	40,513.35	0.7119	16,391.69	15.31	1,070.64	35.5
1983	107,259.77	69,982	115,753.09	0.6962	50,499.56	15.99	3,158.80	34.5
1984	111,308.90	70,948	117,350.43	0.6802	55,178.37	16.68	3,308.12	33.5
1985	997,935.02	620,740	1,026,723.31	0.6638	520,075.97	17.39	29,912.00	32.5
1986	215,721.60	130,802	216,350.77	0.6470	118,017.71	18.11	6,517.42	31.5
1987	174,683.41	103,129	170,578.59	0.6300	100,180.70	18.84	5,316.69	30.5
1988	110,089.22	63,205	104,542.78	0.6127	66,095.51	19.59	3,373.89	29.5
1989	60,488.12	33,728	55,786.82	0.5950	37,969.76	20.35	1,865.77	28.5
1990	87,014.16	47,056	77,832.41	0.5771	57,039.54	21.12	2,700.26	27.5
1991	219,197.68	114,799	189,881.52	0.5589	149,874.88	21.91	6,840.90	26.5
1992	194,768.20	98,633	163,141.61	0.5404	138,749.10	22.71	6,110.92	25.5

GREAT PLAINS NATURAL GAS CO.

Account #: 376 - DISTRIBUTION - STEEL MAINS

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R3
ASL: 46
Net Salvage: -55%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1993	205,202.84	100,314	165,922.23	0.5217	152,142.17	23.51	6,470.61	24.5
1994	139,916.75	65,908	109,014.49	0.5027	107,856.47	24.33	4,432.79	23.5
1995	312,311.27	141,482	234,015.80	0.4834	250,066.67	25.16	9,938.56	22.5
1996	107,993.31	46,950	77,655.98	0.4639	89,733.65	26.00	3,451.06	21.5
1997	593,734.17	247,143	408,781.54	0.4442	511,506.42	26.85	19,048.79	20.5
1998	198,611.36	78,956	130,596.08	0.4242	177,251.53	27.71	6,395.95	19.5
1999	92,312.96	34,952	57,811.09	0.4040	85,274.00	28.58	2,983.34	18.5
2001	194,688.38	66,227	109,541.04	0.3630	192,225.94	30.35	6,333.16	16.5
2002	53,654.52	17,204	28,456.24	0.3422	54,708.27	31.25	1,750.65	15.5
2003	283,066.50	85,187	140,902.62	0.3211	297,850.46	32.16	9,262.52	14.5
2004	582,937.82	163,845	271,005.35	0.2999	632,548.27	33.07	19,127.06	13.5
2005	333,012.03	86,925	143,776.33	0.2785	372,392.32	33.99	10,955.03	12.5
2006	222,111.67	53,490	88,474.65	0.2570	255,798.44	34.92	7,324.85	11.5
2007	298,349.61	65,778	108,798.05	0.2353	353,643.84	35.86	9,862.25	10.5
2008	657,890.17	131,563	217,609.42	0.2134	802,120.34	36.80	21,796.13	9.5
2009	249,071.36	44,672	73,888.43	0.1914	312,172.18	37.75	8,269.52	8.5
2010	685,233.85	108,683	179,765.65	0.1693	882,346.82	38.70	22,797.28	7.5
2011	753,610.63	103,810	171,704.43	0.1470	996,392.05	39.66	25,121.13	6.5
2012	959,857.37	112,099	185,414.91	0.1246	1,302,364.01	40.63	32,055.98	5.5
2013	910,468.07	87,156	144,158.51	0.1022	1,267,066.99	41.60	30,460.84	4.5
2014	1,500,404.18	111,900	185,085.59	0.0796	2,140,540.88	42.57	50,283.64	3.5
2015	1,430,196.33	76,308	126,215.36	0.0569	2,090,588.95	43.55	48,009.10	2.5
2016	1,317,490.68	42,238	69,862.69	0.0342	1,972,247.87	44.53	44,295.02	1.5
2017	1,988,703.44	21,280	35,197.81	0.0114	3,047,292.52	45.51	66,962.01	0.5

GREAT PLAINS NATURAL GAS CO.

Account #: 376 - DISTRIBUTION - STEEL MAINS

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R3
ASL: 46
Net Salvage: -55%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
TOTAL	19,426,616.45	9,246,853	9,867,471.00		20,243,784.00		606,816.86	

COMPOSITE ANNUAL ACCRUAL RATE	3.12%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.51
COMPOSITE AVERAGE AGE (YEARS)	16.50
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	31.87

GREAT PLAINS NATURAL GAS CO.

Account #: 379 - MEAS & REG STATION EQUIP-CITY GATE

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R3
ASL: 28
Net Salvage: -5%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1977	260.06	244	226.23	0.8285	46.83	1.70	27.48	40.5
1984	1.71	1	1.38	0.7700	0.41	3.56	0.12	33.5
1985	17,563.08	15,130	14,015.09	0.7600	4,426.15	3.88	1,141.19	32.5
1995	285.91	197	182.21	0.6070	118.00	8.74	13.51	22.5
1997	31,122.11	19,920	18,451.62	0.5646	14,226.60	10.08	1,411.58	20.5
1998	59.59	37	33.93	0.5423	28.64	10.79	2.65	19.5
1999	31,161.24	18,342	16,990.03	0.5193	15,729.27	11.52	1,365.53	18.5
2004	32,490.96	14,528	13,457.44	0.3945	20,658.07	15.48	1,334.51	13.5
2009	6,781.83	1,969	1,823.72	0.2561	5,297.20	19.87	266.58	8.5
2011	24,489.78	5,488	5,083.89	0.1977	20,630.38	21.72	949.62	6.5
2012	200,929.99	38,260	35,439.86	0.1680	175,536.63	22.67	7,743.66	5.5
2015	92,705.87	8,105	7,507.71	0.0771	89,833.46	25.55	3,515.71	2.5
2017	47,032.71	826	765.49	0.0155	48,618.86	27.51	1,767.44	0.5
TOTAL	484,884.84	129,200	113,979.00		395,150.00		19,539.57	

COMPOSITE ANNUAL ACCRUAL RATE	4.03%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.24
COMPOSITE AVERAGE AGE (YEARS)	7.88
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	20.89

GREAT PLAINS NATURAL GAS CO.

Account #: 380 - SERVICES

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R3
ASL: 39
Net Salvage: -75%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1966	143,119.39	129,883	250,458.93	1.0000	0.00	3.61	0.00	51.5
1967	352,561.93	317,599	616,983.38	1.0000	0.00	3.87	0.00	50.5
1968	42,880.21	38,332	75,040.37	1.0000	0.00	4.14	0.00	49.5
1969	49,828.67	44,192	87,200.17	1.0000	0.00	4.41	0.00	48.5
1970	73,938.79	65,029	129,392.88	1.0000	0.00	4.70	0.00	47.5
1971	56,746.74	49,472	99,202.88	0.9990	103.92	5.00	20.78	46.5
1972	61,447.44	53,071	106,421.11	0.9897	1,111.91	5.32	209.15	45.5
1973	67,315.95	57,563	115,427.40	0.9798	2,375.51	5.65	420.40	44.5
1974	43,589.35	36,878	73,950.38	0.9694	2,330.99	6.00	388.21	43.5
1975	38,010.44	31,793	63,752.59	0.9584	2,765.68	6.38	433.53	42.5
1976	34,197.36	28,255	56,658.25	0.9467	3,187.13	6.78	470.29	41.5
1977	18,934.55	15,440	30,961.21	0.9344	2,174.26	7.20	302.08	40.5
1978	74,238.84	59,691	119,694.95	0.9213	10,223.02	7.64	1,337.65	39.5
1979	137,791.57	109,132	218,836.48	0.9075	22,298.77	8.11	2,748.95	38.5
1980	144,011.14	112,235	225,059.47	0.8930	26,960.03	8.61	3,132.94	37.5
1981	150,205.39	115,066	230,736.69	0.8778	32,122.74	9.12	3,520.82	36.5
1982	96,634.14	72,685	145,752.20	0.8619	23,357.54	9.67	2,416.62	35.5
1983	90,956.63	67,094	134,541.14	0.8452	24,632.97	10.23	2,407.56	34.5
1984	108,965.83	78,736	157,884.92	0.8280	32,805.28	10.82	3,032.01	33.5
1985	329,864.51	233,185	467,595.04	0.8100	109,667.85	11.43	9,594.40	32.5
1986	195,702.50	135,176	271,061.61	0.7915	71,417.76	12.06	5,920.96	31.5
1987	190,088.99	128,122	256,917.22	0.7723	75,738.52	12.71	5,957.32	30.5
1988	175,223.00	115,088	230,779.28	0.7526	75,860.97	13.38	5,667.80	29.5
1989	192,385.49	122,962	246,569.13	0.7324	90,105.48	14.07	6,402.53	28.5
1990	194,549.46	120,818	242,270.98	0.7116	98,190.57	14.78	6,643.31	27.5
1991	206,614.74	124,482	249,616.82	0.6904	111,958.97	15.50	7,221.67	26.5
1992	212,533.07	124,018	248,686.57	0.6686	123,246.31	16.24	7,587.83	25.5
1993	240,809.15	135,861	272,434.63	0.6465	148,981.38	17.00	8,765.25	24.5

GREAT PLAINS NATURAL GAS CO.

Account #: 380 - SERVICES

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R3
ASL: 39
Net Salvage: -75%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1994	235,403.99	128,169	257,010.59	0.6239	154,946.39	17.77	8,721.55	23.5
1995	220,201.48	115,469	231,544.68	0.6009	153,807.91	18.55	8,291.90	22.5
1996	235,828.71	118,845	238,314.81	0.5775	174,385.43	19.35	9,014.02	21.5
1997	294,418.18	142,253	285,251.91	0.5536	229,979.91	20.16	11,409.68	20.5
1998	356,805.57	164,866	330,598.28	0.5295	293,811.47	20.98	14,004.65	19.5
1999	226,830.92	99,946	200,416.41	0.5049	196,537.70	21.82	9,008.93	18.5
2001	186,952.55	74,186	148,760.50	0.4547	178,406.46	23.52	7,583.95	16.5
2002	205,317.51	76,884	154,172.37	0.4291	205,133.27	24.40	8,408.54	15.5
2003	191,072.72	67,226	134,804.36	0.4032	199,572.90	25.28	7,894.96	14.5
2004	183,123.98	60,234	120,784.23	0.3769	199,682.74	26.17	7,629.65	13.5
2005	207,217.89	63,360	127,051.82	0.3504	235,579.49	27.08	8,700.92	12.5
2006	175,552.07	49,566	99,392.80	0.3235	207,823.32	27.99	7,425.30	11.5
2007	167,021.31	43,209	86,644.59	0.2964	205,642.71	28.91	7,113.06	10.5
2008	263,266.90	61,824	123,972.71	0.2691	336,744.36	29.84	11,284.44	9.5
2009	175,893.71	37,072	74,339.41	0.2415	233,474.58	30.78	7,585.24	8.5
2010	348,626.52	65,021	130,383.60	0.2137	479,712.81	31.73	15,120.38	7.5
2011	376,392.22	61,003	122,325.88	0.1857	536,360.51	32.68	16,412.92	6.5
2012	1,046,148.79	143,826	288,406.53	0.1575	1,542,353.85	33.64	45,851.21	5.5
2013	976,236.21	110,062	220,701.96	0.1292	1,487,711.41	34.60	42,993.60	4.5
2014	1,391,418.89	122,271	245,184.12	0.1007	2,189,798.94	35.57	61,558.12	3.5
2015	1,437,306.60	90,389	181,251.86	0.0721	2,334,034.69	36.55	63,863.25	2.5
2016	1,651,682.40	62,433	125,193.35	0.0433	2,765,250.85	37.53	73,689.29	1.5
2017	1,661,895.65	20,971	42,051.57	0.0145	2,866,265.81	38.51	74,433.24	0.5

GREAT PLAINS NATURAL GAS CO.

Account #: 380 - SERVICES

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R3
ASL: 39
Net Salvage: -75%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
TOTAL	15,937,760.04	8,226,650	9,392,445.00		18,498,635.00		612,600.83	

COMPOSITE ANNUAL ACCRUAL RATE	3.84%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.59
COMPOSITE AVERAGE AGE (YEARS)	13.41
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	27.50

GREAT PLAINS NATURAL GAS CO.

Account #: 385 - INDUSTRIAL MEAS. & REG. STATION EQUIPMENT

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: S4
ASL: 40
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1985	4,977.47	3,815	3,695.71	0.7425	1,281.76	9.34	137.16	32.5
2000	110.66	48	46.89	0.4237	63.77	22.50	2.83	17.5
2014	21,162.64	1,852	1,794.00	0.0848	19,368.64	36.50	530.65	3.5
2015	136,533.64	8,533	8,267.33	0.0606	128,266.31	37.50	3,420.43	2.5
TOTAL	162,784.41	14,248	13,804.00		148,980.00		4,091.08	

COMPOSITE ANNUAL ACCRUAL RATE	2.51%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.08
COMPOSITE AVERAGE AGE (YEARS)	3.56
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	36.50

GREAT PLAINS NATURAL GAS CO.

Account #: 387.1 - CATHODIC PROTECTION EQUIPMENT

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R3
ASL: 25
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2000	5,307.90	3,277	2,908.31	0.5479	2,399.59	9.57	250.81	17.5
2015	3,927.21	384	341.04	0.0868	3,586.17	22.55	159.00	2.5
TOTAL	9,235.11	3,661	3,249.00		5,986.00		409.81	

COMPOSITE ANNUAL ACCRUAL RATE	4.44%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.35
COMPOSITE AVERAGE AGE (YEARS)	11.12
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	15.09

GREAT PLAINS NATURAL GAS CO.

Account #: 387.2 - OTHER EQUIPMENT

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R3
ASL: 30
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1972	51.96	50	51.96	1.0000	0.00	1.30	0.00	45.5
1985	11,446.52	9,544	11,446.52	1.0000	0.00	4.99	0.00	32.5
TOTAL	11,498.48	9,594	11,498.00		0.00		0.00	

COMPOSITE ANNUAL ACCRUAL RATE	0.00%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	1.00
COMPOSITE AVERAGE AGE (YEARS)	32.56
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	4.97

GREAT PLAINS NATURAL GAS CO.

Account #: 390 - GENERAL STRUCTURES & IMPROVEMENTS

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R4
ASL: 45
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1966	162.04	147	162.04	1.0000	0.00	4.18	0.00	51.5
1967	63,684.77	57,327	63,684.77	1.0000	0.00	4.49	0.00	50.5
1971	1,047.69	910	1,047.69	1.0000	0.00	5.93	0.00	46.5
1972	3,961.15	3,401	3,961.15	1.0000	0.00	6.36	0.00	45.5
1973	5,277.90	4,477	5,277.90	1.0000	0.00	6.83	0.00	44.5
1974	15,038.59	12,589	15,038.59	1.0000	0.00	7.33	0.00	43.5
1975	1,406.22	1,160	1,406.22	1.0000	0.00	7.87	0.00	42.5
1978	450.00	353	450.00	1.0000	0.00	9.68	0.00	39.5
1980	394.59	298	394.59	1.0000	0.00	11.01	0.00	37.5
1982	3,395.31	2,459	3,395.31	1.0000	0.00	12.41	0.00	35.5
1983	1,470.36	1,041	1,470.36	1.0000	0.00	13.13	0.00	34.5
1985	71,695.66	48,401	71,695.66	1.0000	0.00	14.62	0.00	32.5
1989	71,935.28	43,471	67,598.17	0.9397	4,337.11	17.81	243.57	28.5
1990	97,496.83	57,105	88,799.98	0.9108	8,696.85	18.64	466.49	27.5
1991	5,549.42	3,145	4,891.00	0.8814	658.42	19.50	33.77	26.5
1993	3,055.00	1,613	2,508.06	0.8210	546.94	21.24	25.75	24.5
1995	2,965.78	1,447	2,250.47	0.7588	715.31	23.04	31.04	22.5
1996	8,137.66	3,805	5,917.05	0.7271	2,220.61	23.96	92.69	21.5
1999	57.62	23	36.30	0.6300	21.32	26.77	0.80	18.5
2000	226,436.98	86,947	135,205.27	0.5971	91,231.71	27.72	3,291.08	17.5
2001	17,578.74	6,375	9,912.99	0.5639	7,665.75	28.68	267.28	16.5
2002	9,172.24	3,129	4,866.15	0.5305	4,306.09	29.65	145.24	15.5
2003	1,099.87	351	546.59	0.4970	553.28	30.62	18.07	14.5
2004	6,757.20	2,013	3,130.09	0.4632	3,627.11	31.60	114.80	13.5
2006	236,722.27	60,183	93,586.54	0.3953	143,135.73	33.56	4,265.14	11.5
2008	954,062.70	200,659	312,030.58	0.3271	642,032.12	35.54	18,067.30	9.5
2010	76,867.95	12,777	19,868.14	0.2585	56,999.81	37.52	1,519.17	7.5
2012	218,292.29	26,628	41,407.57	0.1897	176,884.72	39.51	4,476.88	5.5

GREAT PLAINS NATURAL GAS CO.

Account #: 390 - GENERAL STRUCTURES & IMPROVEMENTS

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R4
ASL: 45
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2014	38,164.50	2,964	4,609.28	0.1208	33,555.22	41.50	808.46	3.5
2015	18,348.29	1,018	1,583.14	0.0863	16,765.15	42.50	394.45	2.5
2016	4,336.44	144	224.52	0.0518	4,111.92	43.50	94.52	1.5
2017	363,676.07	4,036	6,275.53	0.0173	357,400.54	44.50	8,031.36	0.5
TOTAL	2,528,697.41	650,397	973,232.00		1,555,466.00		42,387.86	

COMPOSITE ANNUAL ACCRUAL RATE	1.68%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.38
COMPOSITE AVERAGE AGE (YEARS)	12.09
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	33.43

GREAT PLAINS NATURAL GAS CO.

Account #: 391.1 - OFFICE FURNITURE & EQUIPMENT

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: SQ
ASL: 16
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1996	17,724.37	17,724						21.5
1997	755.21	755						20.5
1998	4,304.95	4,305						19.5
1999	1,043.19	1,043						18.5
2002	1,327.69	1,286	1,238.98	0.9332	88.71	0.50	88.71	15.5
2003	16,701.96	15,832	15,250.79	0.9131	1,451.17	0.83	1,451.17	14.5
2004	5,409.98	4,970	4,787.93	0.8850	622.05	1.30	478.50	13.5
2006	9,426.59	8,085	7,787.79	0.8262	1,638.80	2.28	719.48	11.5
2007	29,164.21	24,110	23,224.98	0.7964	5,939.23	2.77	2,142.02	10.5
2008	4,233.57	3,369	3,244.86	0.7665	988.71	3.27	302.43	9.5
2009	1,449.56	1,108	1,067.62	0.7365	381.94	3.77	101.40	8.5
2010	2,389.63	1,753	1,688.34	0.7065	701.29	4.26	164.44	7.5
2017	1,386.39	714	687.94	0.4962	698.45	7.76	90.03	0.5
TOTAL	95,317.30	85,055	58,979.00		12,510.00		5,538.17	

COMPOSITE ANNUAL ACCRUAL RATE	5.81%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.62
COMPOSITE AVERAGE AGE (YEARS)	13.86
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	1.72

GREAT PLAINS NATURAL GAS CO.

Account #: 392.1 - TRANSPORTATION EQUIPMENT - TRAILERS

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: R1
ASL: 12
Net Salvage: 10%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1991	179.18	179						26.5
1992	15.45	15						25.5
1998	0.00	0	0.00	1.0000	0.00	1.50	0.00	19.5
1999	168.29	143	151.46	1.0000	0.00	1.81	0.00	18.5
2001	90.53	72	81.48	1.0000	0.00	2.51	0.00	16.5
2002	158.52	120	142.67	1.0000	0.00	2.89	0.00	15.5
2006	61.62	38	55.46	1.0000	0.00	4.66	0.00	11.5
2007	181.54	103	163.39	1.0000	0.00	5.18	0.00	10.5
2008	273.74	143	246.37	1.0000	0.00	5.72	0.00	9.5
2009	2,970.24	1,413	2,673.22	1.0000	0.00	6.29	0.00	8.5
2010	3,275.67	1,395	2,948.10	1.0000	0.00	6.89	0.00	7.5
2011	2,562.64	958	2,306.38	1.0000	0.00	7.51	0.00	6.5
2012	3,725.31	1,191	3,352.78	1.0000	0.00	8.16	0.00	5.5
2013	3,533.57	934	3,180.21	1.0000	0.00	8.83	0.00	4.5
2014	886.87	184	798.18	1.0000	0.00	9.51	0.00	3.5
2015	7,586.39	1,138	6,827.75	1.0000	0.00	10.20	0.00	2.5
2016	4,058.62	369	2,697.54	0.7385	955.22	10.91	87.57	1.5
2017	1,439.27	44	321.77	0.2484	973.57	11.63	83.69	0.5
TOTAL	31,167.46	7,596	25,947.00		1,929.00		171.26	

COMPOSITE ANNUAL ACCRUAL RATE	0.55%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.83
COMPOSITE AVERAGE AGE (YEARS)	4.79
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	8.75

GREAT PLAINS NATURAL GAS CO.

Account #: 392.2 - TRANSPORTATION EQUIPMENT

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: L2
ASL: 7
Net Salvage: 20%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1991	7,939.42	7,939						26.5
1992	684.55	685						25.5
1998	0.00	0	0.00	1.0000	0.00	0.50	0.00	19.5
1999	7,457.01	6,916	5,965.61	1.0000	0.00	0.51	0.00	18.5
2001	4,011.59	3,598	3,209.27	1.0000	0.00	0.72	0.00	16.5
2002	7,023.93	6,142	5,619.15	1.0000	0.00	0.88	0.00	15.5
2006	2,730.55	2,083	2,184.44	1.0000	0.00	1.66	0.00	11.5
2007	8,044.22	5,868	6,209.94	0.9650	225.44	1.89	119.05	10.5
2008	12,129.55	8,424	8,915.07	0.9187	788.57	2.14	368.77	9.5
2009	131,612.50	86,740	91,794.12	0.8718	13,495.88	2.39	5,654.81	8.5
2010	145,146.16	90,639	95,920.73	0.8261	20,196.19	2.63	7,682.90	7.5
2011	113,551.61	67,034	70,939.97	0.7809	19,901.32	2.87	6,939.99	6.5
2012	165,069.95	91,187	96,500.09	0.7308	35,555.87	3.13	11,348.41	5.5
2013	156,573.81	78,650	83,232.58	0.6645	42,026.47	3.48	12,063.46	4.5
2014	39,297.43	16,877	17,860.26	0.5681	13,577.68	3.99	3,399.73	3.5
2015	336,155.88	110,119	116,536.09	0.4333	152,388.61	4.71	32,375.52	2.5
2016	179,839.11	37,034	39,191.47	0.2724	104,679.82	5.56	18,832.32	1.5
2017	63,625.85	4,518	4,780.82	0.0939	46,119.86	6.50	7,092.11	0.5
TOTAL	1,380,893.11	499,561	648,860.00		448,956.00		105,877.07	

COMPOSITE ANNUAL ACCRUAL RATE	7.67%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.47
COMPOSITE AVERAGE AGE (YEARS)	4.79
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	3.83

GREAT PLAINS NATURAL GAS CO.

Account #: 394 - TOOLS, SHOP, & GARAGE EQUIPMENT

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: SQ
ASL: 20
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1996	3,925.31	3,925						21.5
1997	44,765.60	44,766						20.5
1998	32,076.61	31,275	17,874.57	0.5572	14,202.04	0.50	14,202.04	19.5
2000	1,072.16	1,002	572.95	0.5344	499.21	1.30	384.01	17.5
2001	3,797.95	3,459	1,976.85	0.5205	1,821.10	1.79	1,019.82	16.5
2002	21,220.76	18,804	10,747.11	0.5064	10,473.65	2.28	4,598.19	15.5
2003	19,009.90	16,374	9,358.56	0.4923	9,651.34	2.77	3,480.81	14.5
2004	43,014.64	35,983	20,565.75	0.4781	22,448.89	3.27	6,866.72	13.5
2005	19,311.84	15,675	8,958.68	0.4639	10,353.16	3.77	2,748.63	12.5
2006	36,557.46	28,762	16,438.54	0.4497	20,118.92	4.26	4,717.54	11.5
2007	11,846.34	9,025	5,158.12	0.4354	6,688.22	4.76	1,404.16	10.5
2008	16,656.41	12,274	7,015.12	0.4212	9,641.29	5.26	1,832.28	9.5
2009	10,100.22	7,191	4,109.86	0.4069	5,990.36	5.76	1,039.84	8.5
2010	19,195.05	13,187	7,536.82	0.3926	11,658.23	6.26	1,862.34	7.5
2011	31,144.82	20,619	11,784.48	0.3784	19,360.34	6.76	2,864.27	6.5
2012	61,337.77	39,076	22,333.50	0.3641	39,004.27	7.26	5,373.51	5.5
2013	12,834.35	7,856	4,489.90	0.3498	8,344.45	7.76	1,075.58	4.5
2014	51,798.37	30,412	17,381.46	0.3356	34,416.91	8.26	4,167.92	3.5
2016	56,019.22	30,091	17,198.28	0.3070	38,820.94	9.26	4,193.80	1.5
2017	132,584.87	67,907	38,811.34	0.2927	93,773.53	9.76	9,611.48	0.5
TOTAL	628,269.65	437,665	222,312.00		357,267.00		71,442.92	

COMPOSITE ANNUAL ACCRUAL RATE	11.37%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.35
COMPOSITE AVERAGE AGE (YEARS)	7.95
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	6.07

GREAT PLAINS NATURAL GAS CO.

Account #: 396.1 - POWER OPERATED EQUIPMENT - TRAILERS

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: L0
ASL: 6
Net Salvage: 65%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1973	4.81	5						44.5
1974	0.00	0						43.5
1979	663.62	664						38.5
1980	119.48	119						37.5
1982	264.06	264						35.5
1987	346.87	347						30.5
1988	609.29	609						29.5
1989	967.99	968						28.5
1990	0.00	0						27.5
1991	260.29	260						26.5
1994	544.85	499	190.70	1.0000	0.00	0.50	0.00	23.5
1995	829.30	745	290.25	1.0000	0.00	0.61	0.00	22.5
1996	2,821.57	2,491	987.55	1.0000	0.00	0.70	0.00	21.5
1997	138.86	120	48.60	1.0000	0.00	0.81	0.00	20.5
1998	274.65	233	96.13	1.0000	0.00	0.92	0.00	19.5
1999	549.17	454	192.21	1.0000	0.00	1.04	0.00	18.5
2000	1,765.30	1,421	617.86	1.0000	0.00	1.17	0.00	17.5
2002	2,391.45	1,811	837.01	1.0000	0.00	1.46	0.00	15.5
2005	32.06	22	11.22	1.0000	0.00	1.96	0.00	12.5
2007	8,243.55	5,019	2,885.24	1.0000	0.00	2.35	0.00	10.5
2008	2,843.96	1,629	995.38	1.0000	0.00	2.56	0.00	9.5
2009	3,646.99	1,947	1,276.45	1.0000	0.00	2.80	0.00	8.5
2010	11,436.97	5,628	4,002.94	1.0000	0.00	3.05	0.00	7.5
2012	0.00	0	0.00	1.0000	0.00	3.61	0.00	5.5
2013	4,862.98	1,676	1,702.04	1.0000	0.00	3.93	0.00	4.5
2014	18,641.36	5,346	6,524.48	1.0000	0.00	4.28	0.00	3.5
2015	4,810.86	1,075	1,683.80	1.0000	0.00	4.66	0.00	2.5
2016	12,251.91	1,853	3,241.37	0.7559	1,046.80	5.09	205.56	1.5

GREAT PLAINS NATURAL GAS CO.

Account #: 396.1 - POWER OPERATED EQUIPMENT - TRAILERS

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: L0
ASL: 6
Net Salvage: 65%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2017	72,119.88	4,369	7,640.91	0.3027	17,601.05	5.64	3,122.67	0.5
TOTAL	151,442.09	13,851	33,224.00		18,648.00		3,328.23	

COMPOSITE ANNUAL ACCRUAL RATE	2.20%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.22
COMPOSITE AVERAGE AGE (YEARS)	4.39
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	4.43

GREAT PLAINS NATURAL GAS CO.

Account #: 396.2 - POWER OPERATED EQUIPMENT

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: L0
ASL: 6
Net Salvage: 65%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1973	35.00	35						44.5
1974	0.00	0						43.5
1979	4,828.59	4,829						38.5
1980	869.36	869						37.5
1982	1,921.35	1,921						35.5
1987	2,523.82	2,524						30.5
1988	4,433.26	4,433						29.5
1989	7,043.15	7,043						28.5
1990	0.00	0						27.5
1991	1,893.92	1,894						26.5
1994	3,964.35	3,634	1,387.52	1.0000	0.00	0.50	0.00	23.5
1995	6,034.03	5,419	2,111.91	1.0000	0.00	0.61	0.00	22.5
1996	20,530.01	18,128	7,185.50	1.0000	0.00	0.70	0.00	21.5
1997	1,010.37	875	353.63	1.0000	0.00	0.81	0.00	20.5
1998	1,998.41	1,692	699.44	1.0000	0.00	0.92	0.00	19.5
1999	3,995.83	3,303	1,398.54	1.0000	0.00	1.04	0.00	18.5
2000	12,844.49	10,339	4,495.57	1.0000	0.00	1.17	0.00	17.5
2002	17,400.41	13,178	6,090.14	1.0000	0.00	1.46	0.00	15.5
2005	233.31	157	81.66	1.0000	0.00	1.96	0.00	12.5
2007	59,980.82	36,519	20,993.29	1.0000	0.00	2.35	0.00	10.5
2008	20,692.87	11,852	7,242.51	1.0000	0.00	2.56	0.00	9.5
2009	26,535.81	14,168	9,287.53	1.0000	0.00	2.80	0.00	8.5
2010	83,216.40	40,947	29,125.74	1.0000	0.00	3.05	0.00	7.5
2012	0.00	0	0.00	1.0000	0.00	3.61	0.00	5.5
2013	35,383.52	12,195	12,384.23	1.0000	0.00	3.93	0.00	4.5
2014	135,636.22	38,895	47,472.68	1.0000	0.00	4.28	0.00	3.5
2015	35,004.26	7,825	12,251.49	1.0000	0.00	4.66	0.00	2.5
2016	89,145.99	13,485	31,201.10	1.0000	0.00	5.09	0.00	1.5

GREAT PLAINS NATURAL GAS CO.

Account #: 396.2 - POWER OPERATED EQUIPMENT

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: L0
ASL: 6
Net Salvage: 65%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2017	524,769.56	31,788	106,982.48	0.5825	76,686.87	5.64	13,605.30	0.5
TOTAL	1,101,925.10	100,782	300,745.00		76,687.00		13,605.30	

COMPOSITE ANNUAL ACCRUAL RATE	1.23%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.27
COMPOSITE AVERAGE AGE (YEARS)	4.39
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	4.43

GREAT PLAINS NATURAL GAS CO.

Account #: 397 - COMMUNICATION EQUIPMENT

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: SQ
ASL: 18
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1994	3,485.93	3,486						23.5
1997	58.13	58						20.5
1999	873.56	874						18.5
2000	757.60	737	584.64	0.7717	172.96	0.50	172.96	17.5
2001	7,624.07	7,271	5,771.41	0.7570	1,852.66	0.83	1,852.66	16.5
2002	11,369.56	10,548	8,372.76	0.7364	2,996.80	1.30	2,305.23	15.5
2003	2,420.43	2,180	1,730.61	0.7150	689.82	1.79	386.30	14.5
2004	186,554.41	162,947	129,338.61	0.6933	57,215.80	2.28	25,119.13	13.5
2008	15,081.38	11,508	9,134.56	0.6057	5,946.82	4.26	1,394.43	9.5
2010	9,894.78	7,002	5,558.01	0.5617	4,336.77	5.26	824.18	7.5
2012	65,462.99	42,696	33,890.09	0.5177	31,572.90	6.26	5,043.59	5.5
TOTAL	303,582.84	249,308	194,381.00		104,785.00		37,098.49	

COMPOSITE ANNUAL ACCRUAL RATE	12.22%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.64
COMPOSITE AVERAGE AGE (YEARS)	11.68
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	3.22

GREAT PLAINS NATURAL GAS CO.

Account #: 398 - MISCELLANEOUS EQUIPMENT

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF DECEMBER 31, 2017

ALG - Remaining Life
Survivor Curve: SQ
ASL: 25
Net Salvage: 0%

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2006	7,526.60	5,492	2,819.46	0.3746	4,707.14	6.76	696.40	11.5
2007	806.08	572	293.69	0.3643	512.39	7.26	70.59	10.5
2008	43,005.89	29,660	15,227.86	0.3541	27,778.03	7.76	3,580.54	9.5
TOTAL	51,338.57	35,724	18,341.00		32,998.00		4,347.53	

COMPOSITE ANNUAL ACCRUAL RATE	8.47%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.36
COMPOSITE AVERAGE AGE (YEARS)	9.81
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS	7.60