

January 2, 2024

**VIA ELECTRONIC FILING**

Public Utility Commission of Oregon  
Attention: Filing Center  
201 High Street SE, Suite 100  
Salem, Oregon 97301-3398

**Re: UM \_\_\_\_— NW Natural's Updated Depreciation Study**

Northwest Natural Gas Company, dba NW Natural (NW Natural or Company), submits the enclosed updated depreciation study with the Public Utility Commission of Oregon (Commission).

NW Natural hired Gannett Fleming, Inc. to conduct the depreciation study of its gas plant in service as of December 31, 2022. The purpose of the depreciation study is to determine the annual depreciation accrual rates and amounts for accounting and ratemaking purposes. The depreciation study includes descriptions of the methods used in the estimation of depreciation, the summary of annual depreciation accrual rates, the statistical support for the life and net salvage estimates, and the detailed tabulations of annual depreciation.

The study sets forth an annual system depreciation expense of \$158.2 million when applied to depreciable plant balances as of December 31, 2022. Using the depreciation rates currently in effect for NW Natural, NW Natural's annual system depreciation expense would be \$117.4 million. The resulting annual system increase in depreciation expense under the depreciation rates currently in effect for NW Natural and the depreciation expense under the depreciation rates set forth in the study is \$40.8 million. NW Natural is requesting to update its depreciation rates for an effective date of November 1, 2024.

NW Natural also included the enclosed updated depreciation study in its general rate case filing on December 29, 2023, which has been docketed as UG 490. The results of the depreciation study are one of the key drivers to the increase requested in the Company's revenue requirement in UG 490. In that docket, the depreciation study, rates, and expenses are discussed in the Direct Testimony of Justin B. Palfreyman and Zachary D. Kravitz, NW Natural/100, Palfreyman-Kravitz, the Direct Testimony of John J. Spanos, NW Natural/1600, Spanos, and the Direct Testimony of Kyle T. Walker, NW Natural/1700, Walker. The depreciation study itself is Exhibit NW Natural/1602, Spanos. The Company noted in its direct testimony that the depreciation study is also being filed in a separate docket (NW Natural/100, Palfreyman-Kravitz/Page 42).

Typically, the Company files its updated depreciation studies solely in a separate docket such as this one, pursuant to OAR 860-027-0350, which requires each energy utility to file an updated

depreciation study with the Commission at least once every five years.<sup>1</sup> In the Company's most recently filed depreciation study (UM 2214), the Commission requested that NW Natural address the issue of accelerated depreciation when it files its next depreciation study. Specifically, in Order No. 22-322 (at page 3) entered in UM 2214 on September 7, 2022, the Commission stated the following:

In adopting this stipulation, we are mindful that prior to the company's next depreciation study, to be filed no later than December 31, 2027, NW Natural, Staff, and stakeholders will be engaged in significant work towards the company reducing emissions in response to the Oregon Department of Environmental Quality's Climate Protection Program or other policy and regulatory directives. We anticipate that parties may seek to evaluate accelerated depreciation or other adjustments to asset depreciation schedules as one tool to mitigate uncertainty about decarbonization pathways and manage potential future risks to customers. We ask that the company include in its next depreciation filing testimony addressing its consideration of this approach.

To be responsive to the Commission's directive, NW Natural has filed this depreciation study now in this docket and in the Company's general rate case (UG 490), rather than wait until the Company is obligated to file another study—December 31, 2027. It is very important to have the Company's depreciation rates reflect the actual operations and depreciable lives of the assets on its system, and to do so requires a higher revenue requirement. If the Company can reset these rates to reflect the actual results of its depreciation study, NW Natural can then begin to discuss the justifications for, and impacts of, accelerated depreciation.

The Company is not proposing accelerated depreciation rates with this filing or in its general rate case (UG 490). Given the near-term rate pressure associated with NW Natural's proposal to increase its depreciation expense to reflect the useful life of its assets, further increases to depreciation expense are not appropriate to mitigate the potential future risks of certain decarbonization pathways that the Company may pursue. However, NW Natural is not attempting to foreclose that discussion in a future filing appropriate for considering whether a disciplined approach to gradually increase depreciation expense to mitigate potential future uncertainties—while balancing intergenerational equity between today's customers and tomorrow's customers—is a reasonable approach for NW Natural and its customers.

Please address correspondence on this matter to me with copies to the following:

eFiling  
Rates & Regulatory Affairs  
NW Natural  
250 SW Taylor Street  
Portland, Oregon 97204  
Telephone: (503) 610-7330  
Fax: (503) 220-2579  
eFiling@nwnatural.com

Eric Nelsen  
Senior Regulatory Attorney  
NW Natural  
250 SW Taylor Street  
Portland, Oregon 97204  
Telephone: (503) 610-7618  
Fax: (503) 220-2579  
eric.nelsen@nwnatural.com

---

<sup>1</sup> See, e.g., In the Matter of Northwest Natural Gas Company, dba NW Natural, Updated Depreciation Study Pursuant to OAR 860-027-0350, Docket No. 2214 (Dec. 17, 2021).

Sincerely,

*/s/ Kyle Walker, CPA*

Kyle Walker

Senior Manager, Rates and Regulatory Affairs

NW Natural

250 SW Taylor Street

Portland, OR 97204

(503) 610-7051

kyle.walker@nwnatural.com



**NW Natural<sup>®</sup>**

## **2022 DEPRECIATION STUDY**

CALCULATED ANNUAL DEPRECIATION  
ACCRUALS RELATED TO GAS PLANT  
AS OF DECEMBER 31, 2022

*Prepared by:*



**GANNETT FLEMING**

**Excellence Delivered As Promised**

NORTHWEST NATURAL GAS COMPANY  
Portland, Oregon

2022 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION  
ACCRUALS RELATED TO GAS PLANT  
AS OF DECEMBER 31, 2022

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC  
Camp Hill, Pennsylvania



**Gannett Fleming**  
**Valuation and Rate Consultants, LLC**

Corporate Headquarters  
207 Senate Avenue  
Camp Hill, PA 17011  
P 717.763.7211 | F 717.763.8150

[gannettfleming.com](http://gannettfleming.com)

December 5, 2023

Northwest Natural Gas Company  
250 SW Taylor Street  
Portland, OR 97204

Attention: Zachary Kravitz  
Rates and Regulatory Affairs

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the gas plant of Northwest Natural Gas Company as of December 31, 2022. The attached report presents a description of the methods used in the estimation of depreciation, the summary of annual depreciation accrual rates, the statistical support for the life and net salvage estimates and the detailed tabulations of annual depreciation.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC.

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS

President

A handwritten signature in blue ink that reads "Frederick B. Johnston, Jr.".

FREDERICK B. JOHNSTON, JR.

Senior Analyst

JJS:jmr

075290.100

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	iii
<b>PART I. INTRODUCTION .....</b>	I-1
Scope .....	I-2
Plan of Report .....	I-2
Basis of the Study .....	I-3
Depreciation .....	I-3
Service Life and Net Salvage Estimates.....	I-4
<b>PART II. ESTIMATION OF SURVIVOR CURVES .....</b>	II-1
Survivor Curves.....	II-2
Iowa Type Curves.....	II-3
Retirement Rate Method of Analysis .....	II-9
Schedules of Annual Transactions in Plant Records .....	II-10
Schedule of Plant Exposed to Retirement .....	II-13
Original Life Table .....	II-15
Smoothing the Original Survivor Curve .....	II-17
<b>PART III. SERVICE LIFE CONSIDERATIONS .....</b>	III-1
Field Trips .....	III-2
Service Life Analysis .....	III-2
Life Span Estimates.....	III-5
<b>PART IV. NET SALVAGE CONSIDERATIONS .....</b>	IV-1
Net Salvage Analysis .....	IV-2
Net Salvage Considerations .....	IV-2
<b>PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION.....</b>	V-1
Group Depreciation Procedures .....	V-2
Single Unit of Property.....	V-2
Remaining Life Annual Accruals.....	V-3
Average Service Life Procedure .....	V-3
Calculation of Annual and Accrued Amortization .....	V-4
<b>PART VI. RESULTS OF STUDY .....</b>	VI-1
Qualification of Results.....	VI-2
Description of Statistical Support .....	VI-2
Description of Detailed Tabulations.....	VI-3

**TABLE OF CONTENTS, cont.**

Table 1. Summary of Estimated Survivor Curve, Net Salvage Percent, Original Cost, Book Depreciation Reserve and Calculated Annual Depreciation Accruals Related to Gas Plant as of December 31, 2022 ..... VI-5

**PART VII. SERVICE LIFE STATISTICS..... VII-1**

**PART VIII. NET SALVAGE STATISTICS..... VIII-1**

**PART IX. DETAILED DEPRECIATION CALCULATIONS..... IX-1**



# NORTHWEST NATURAL GAS COMPANY

## DEPRECIATION STUDY

### EXECUTIVE SUMMARY

Pursuant to Northwest Natural Gas Company's ("NWNat" or "Company") request, Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a depreciation study related to the gas plant of NWNat as of December 31, 2022. The purpose of this study was to determine the annual depreciation accrual rates and amounts for book and ratemaking purposes.

The depreciation rates are based on the straight line method using the average service life ("ASL") procedure and were applied on a remaining life basis. The calculations were based on attained ages and estimated average service life, and forecasted net salvage characteristics for each depreciable group of assets.

NWNat's accounting policy for plant assets has not changed since the last depreciation study was prepared. However, there have been changes to the plant in service due to system improvements and to the detailed accumulated depreciation reserve due to recording of Removal Work in Progress (RWIP) based on Order No. 20-364.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to gas plant in service as of December 31, 2022 as summarized by Table 1 of the study. Supporting analysis and calculations are provided within the study.

The study results set forth an annual depreciation expense of \$158.2 million when applied to depreciable plant balances as of December 31, 2022. The results are summarized at the functional level as follows:

**SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS**

<b>FUNCTION</b>	<b>ORIGINAL COST AS OF DECEMBER 31, 2022</b>	<b>PROPOSED RATE</b>	<b>PROPOSED EXPENSE</b>
Intangible Plant	\$ 248,530,403.19	12.46	\$ 30,967,174
Oil Gas Facilities	21,398.00	-	(5,997)
Other Production Facilities	628,802.00	-	(2,330)
Underground Storage Plant	214,857,527.38	2.12	4,545,886
Local Storage Plant	102,047,489.49	4.08	4,162,110
Transmission Plant	395,412,904.63	1.92	7,589,944
Distribution Plant	2,721,404,755.58	3.16	85,861,554
General Plant	363,152,755.30	6.86	24,901,872
General Plant Reserve Amortization	-	-	<u>184,588</u>
<b>Total</b>	<b><u>\$4,046,056,035.57</u></b>	<b><u>3.91</u></b>	<b><u>\$158,213,128</u></b>

---

## **PART I. INTRODUCTION**

**NORTHWEST NATURAL GAS COMPANY  
DEPRECIATION STUDY**

**PART I. INTRODUCTION**

**SCOPE**

This report sets forth the results of the depreciation study for Northwest Natural Gas Company (“Company”), to determine the annual depreciation accrual rates and amounts for book purposes applicable to the original cost of gas plant as of December 31, 2022. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to gas plant in service as of December 31, 2022

The service life and net salvage estimates resulting from the study were based on informed judgment which incorporated analyses of historical plant retirement data as recorded through 2022, a review of Company practice and outlook as they relate to plant operation and retirement, and consideration of current practice in the gas industry, including knowledge of service lives and net salvage estimates used for other gas companies.

**PLAN OF REPORT**

Part I, Introduction, contains statements with respect to the plan of the report, and the basis of the study. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and methods used in the service life study. Part III, Service Life Considerations, presents the results of the average service life analysis. Part IV, Net Salvage Considerations, presents the results of the net salvage study. Part V, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of group depreciation. Part VI, Results of Study, presents summaries by depreciable group

of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VII, Service Life Statistics presents the statistical analysis of service life estimates, Part VIII, Net Salvage Statistics sets forth the statistical indications of net salvage percents, and Part IX, Detailed Depreciation Calculations presents the detailed tabulations of annual depreciation.

## **BASIS OF THE STUDY**

### **Depreciation**

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of 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.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing gas utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of 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.

For most accounts, the annual depreciation was calculated by the straight line method using the average service life procedure and the remaining life basis. For certain General Plant accounts, the annual depreciation is based on amortization accounting.

Both types of calculations were based on original cost, attained ages, and estimates of service lives and net salvage.

The straight line method, average service life procedure is a commonly used depreciation calculation procedure that has been widely accepted in jurisdictions throughout North America. Gannett Fleming recommends its continued use. Amortization accounting is used for certain General Plant accounts because of the disproportionate plant accounting effort required when compared to the minimal original cost of the large number of items in these accounts. An explanation of the calculation of annual and accrued amortization is presented beginning on page V-4 of the report.

### **Service Life and Net Salvage Estimates**

The service life and net salvage estimates used in the depreciation and amortization calculations were based on informed judgment which incorporated a review of management's plans, policies and outlook, a general knowledge of the gas utility industry, and comparisons of the service life and net salvage estimates from our studies of other gas utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for gas plant. Iowa type survivor curves were used to depict the estimated survivor curves for the plant accounts not subject to amortization accounting.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data analyses and the probable future. The combination of the historical experience and the estimated future yielded estimated survivor curves from which the average service lives were derived.

---

## **PART II. ESTIMATION OF SURVIVOR CURVES**

## PART II. ESTIMATION OF SURVIVOR CURVES

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

### SURVIVOR CURVES

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units or by constructing a survivor curve by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

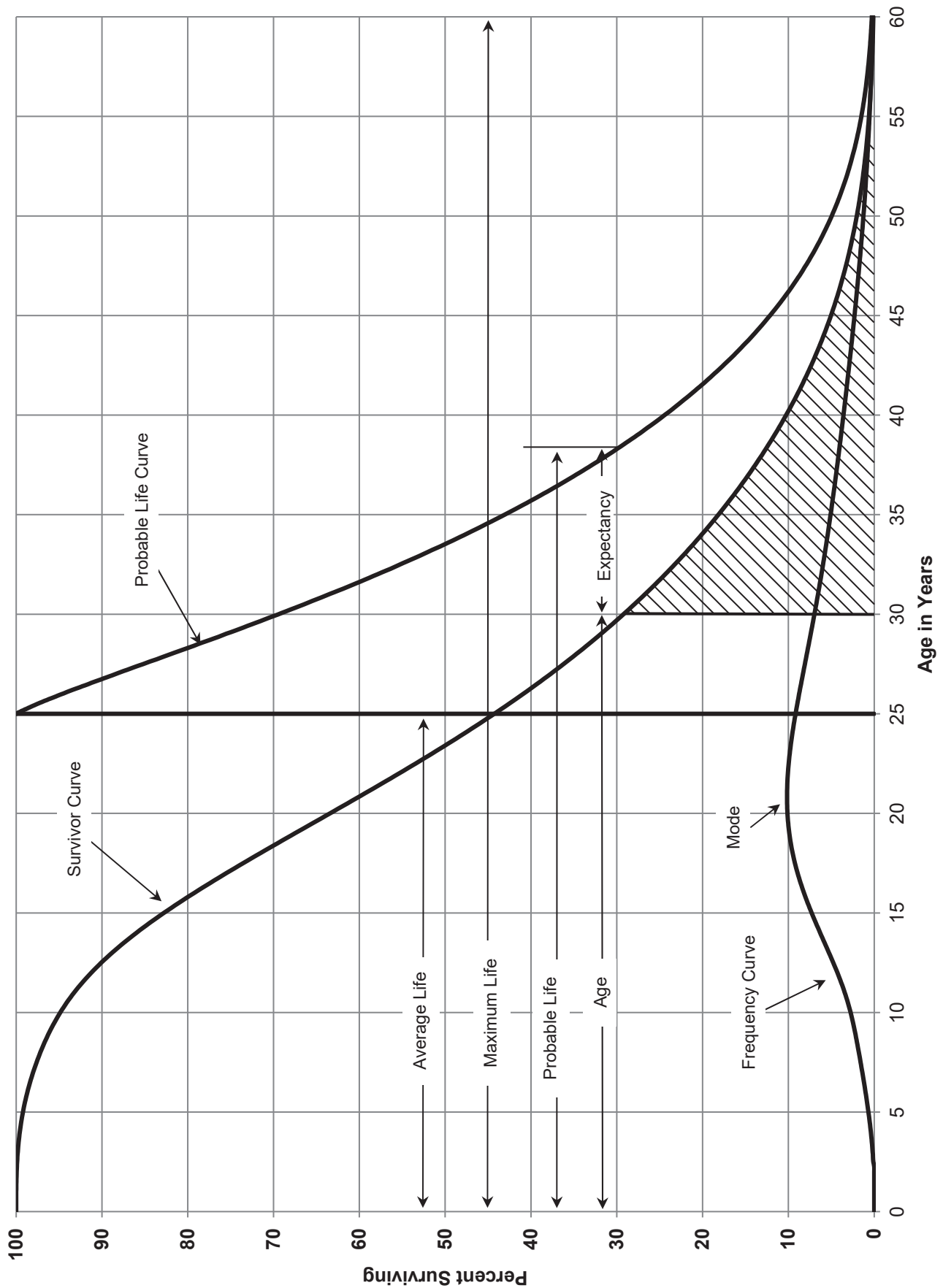


This study has incorporated the use of Iowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

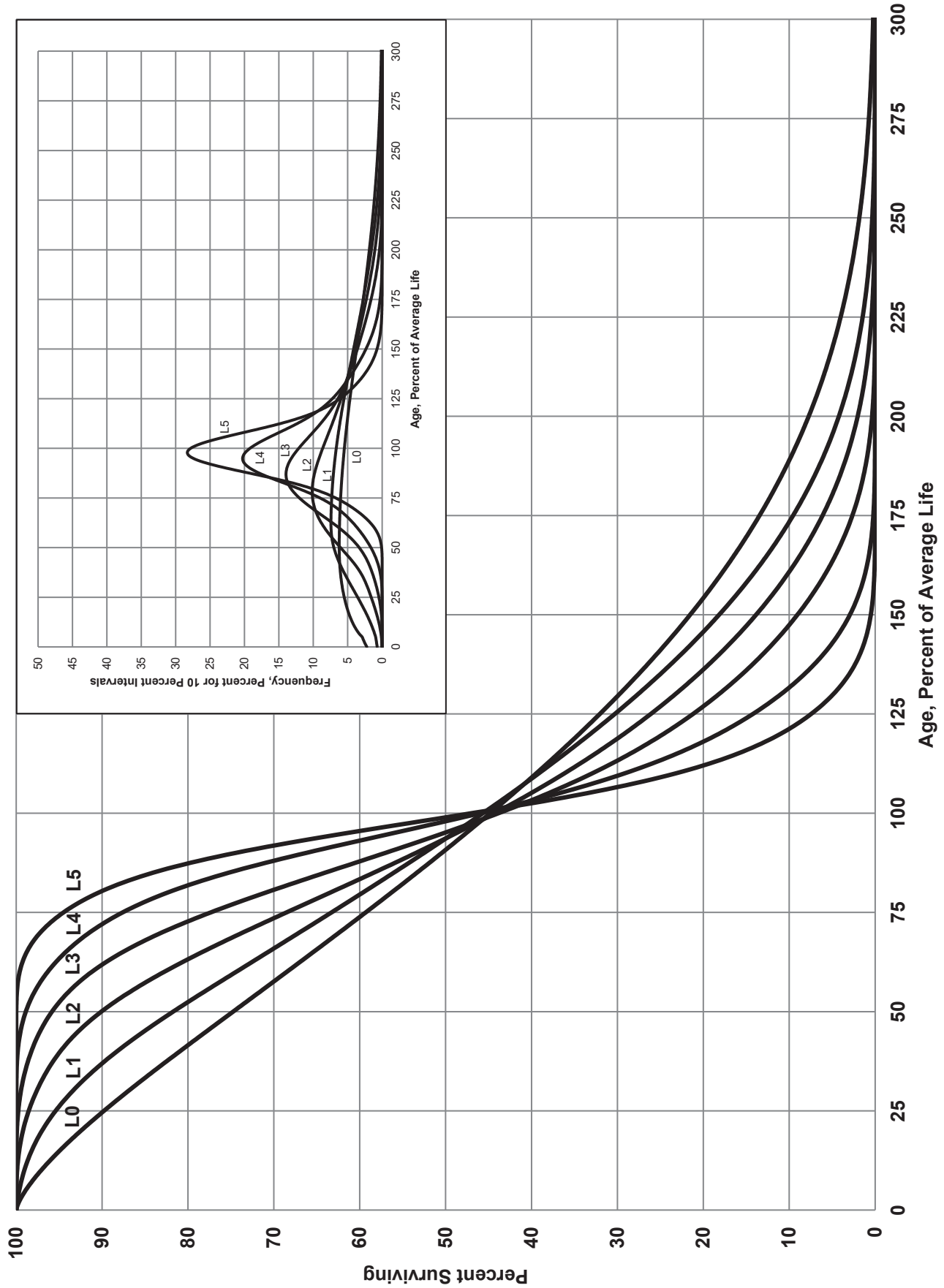
### **Iowa Type Curves**

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of retirements) in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family. A higher number designates a higher mode curve.

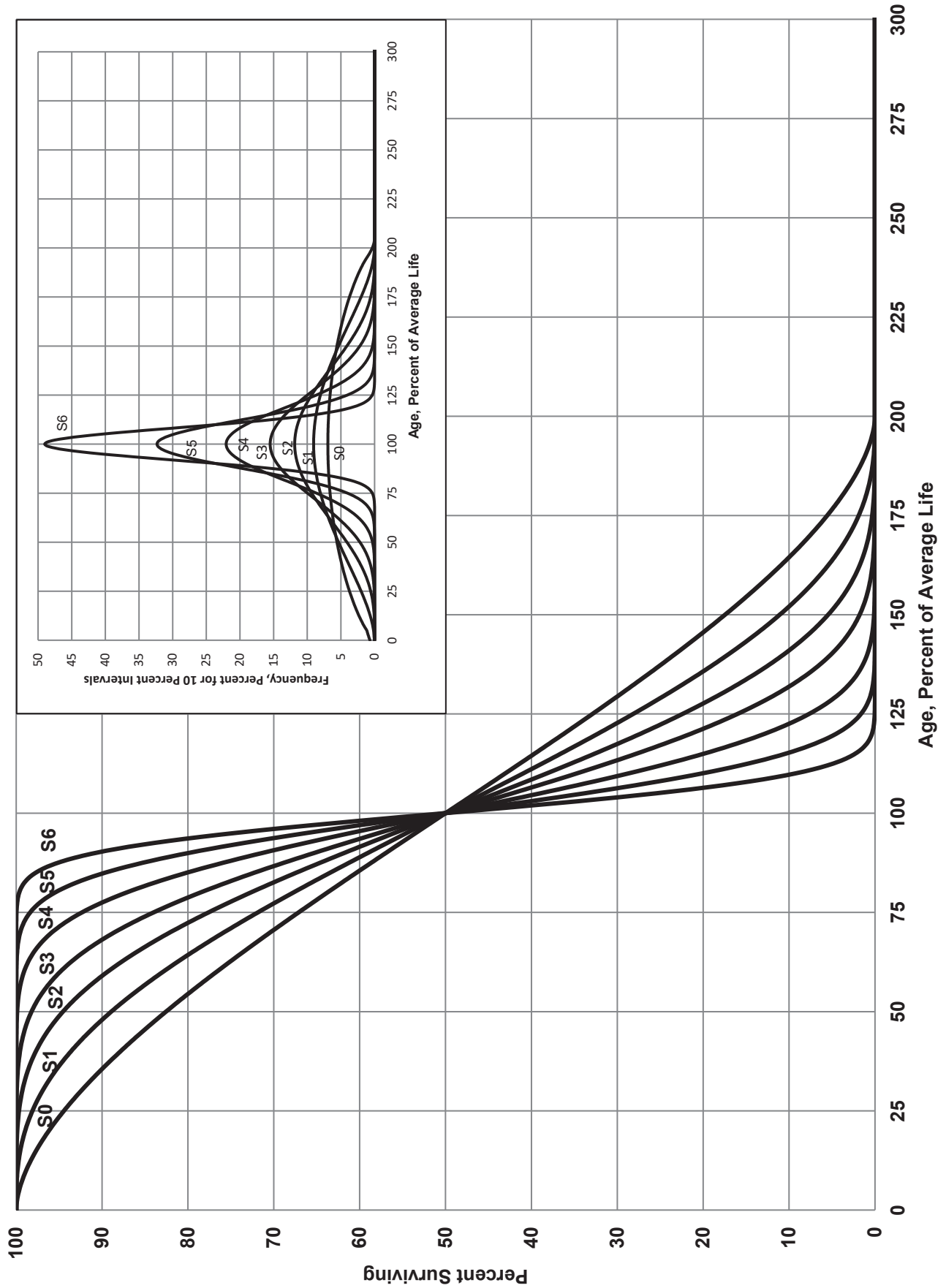
The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.



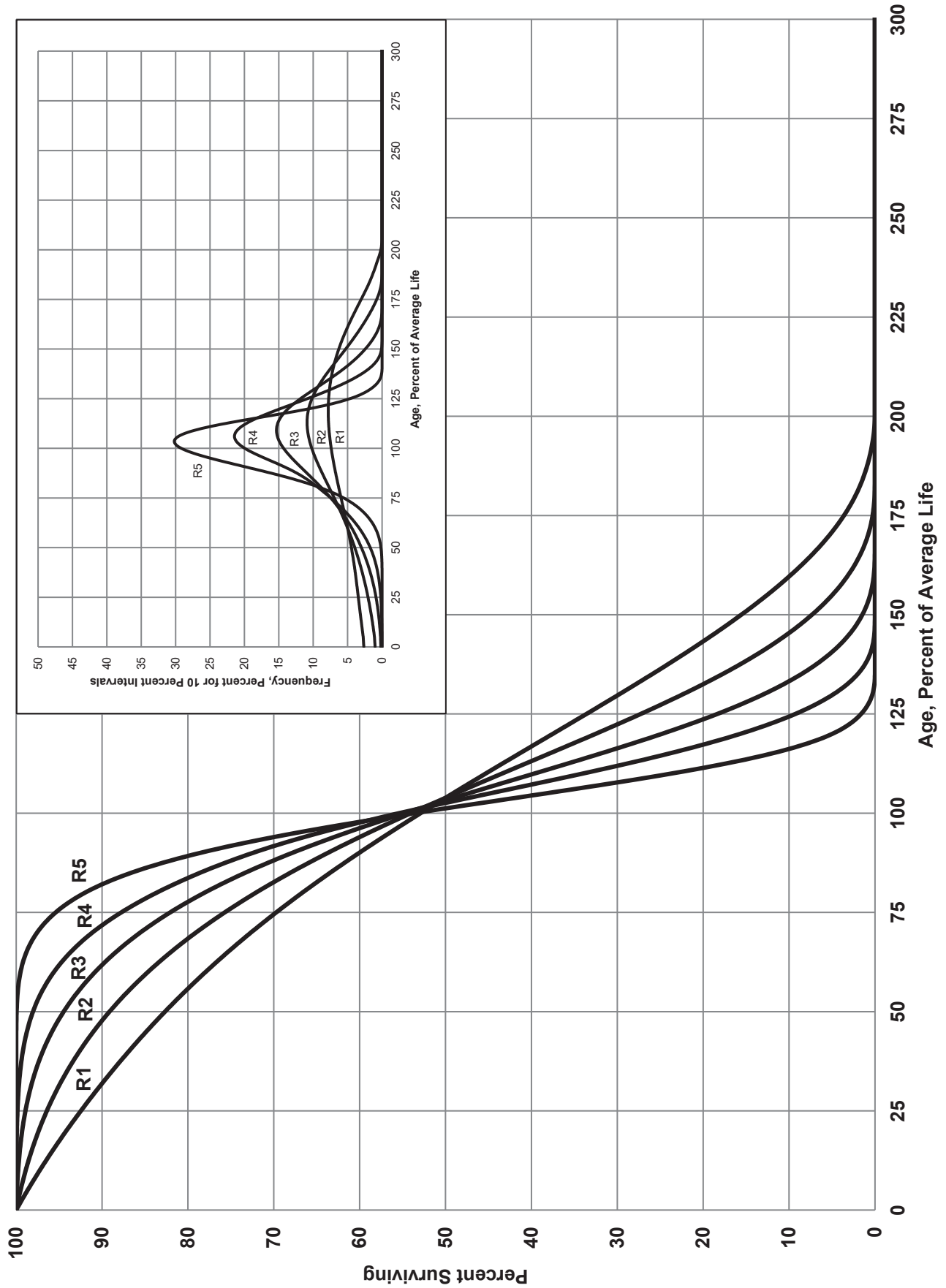
**FIGURE 1. TYPICAL SURVIVOR CURVE AND DERIVED CURVES**



**FIGURE 2. LEFT MODAL OR "L" IOWA TYPE SURVIVOR CURVES**



**FIGURE 3. SYMMETRICAL OR "S" IOWA TYPE SURVIVOR CURVES**



**FIGURE 4. RIGHT MODAL OR "R" IOWA TYPE SURVIVOR CURVES**

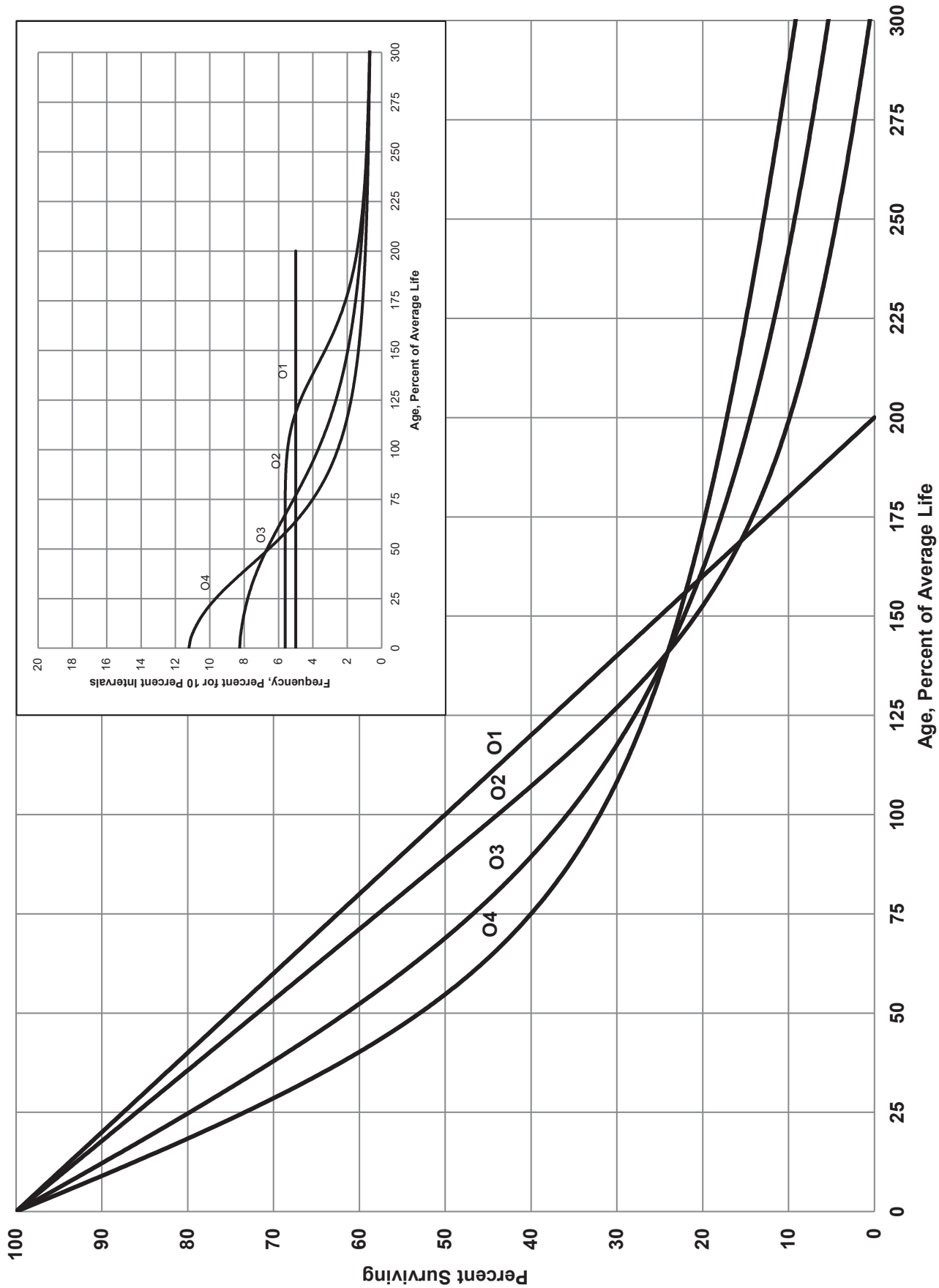


FIGURE 5. ORIGIN MODAL OR "O" IOWA TYPE SURVIVOR CURVES

These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."<sup>1</sup> In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

### **Retirement Rate Method of Analysis**

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text and is also explained in several publications including "Statistical Analyses of Industrial Property Retirements,"<sup>2</sup> "Engineering Valuation and Depreciation,"<sup>3</sup> and "Depreciation Systems."<sup>4</sup>

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band. The band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

---

<sup>1</sup>Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

<sup>2</sup>Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

<sup>3</sup>Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

<sup>4</sup>Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

## **Schedules of Annual Transactions in Plant Records**

The property group used to illustrate the retirement rate method is observed for the experience band 2013-2022 for which there were placements during the years 2008-2022. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2008 were retired in 2013. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2013 retirements of 2008 installations and ending with the 2022 retirements of the 2017 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$



SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2013-2022  
SUMMARIZED BY AGE INTERVAL

Year	Retirements, Thousands of Dollars											Total During		Age
	During Year											Age Interval	Interval	
Placed	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
2008	10	11	12	13	14	16	23	24	25	26	26	26	13½-14½	
2009	11	12	13	15	16	18	20	21	22	19	19	44	12½-13½	
2010	11	12	13	14	16	17	19	21	22	18	64	64	11½-12½	
2011	8	9	10	11	11	13	14	15	16	17	83	83	10½-11½	
2012	9	10	11	12	13	14	16	17	19	20	93	93	9½-10½	
2013	4	9	10	11	12	13	14	15	16	20	105	105	8½-9½	
2014		5	11	12	13	14	15	16	18	20	113	113	7½-8½	
2015			6	12	13	15	16	17	19	19	124	124	6½-7½	
2016				6	13	15	16	17	19	19	131	131	5½-6½	
2017					7	14	16	17	19	20	143	143	4½-5½	
2018						8	18	20	22	23	146	146	3½-4½	
2019							9	20	22	25	150	150	2½-3½	
2020								11	23	25	151	151	1½-2½	
2021									11	24	153	153	½-1½	
2022										13	80	80	0-½	
<b>Total</b>	<b>53</b>	<b>68</b>	<b>86</b>	<b>106</b>	<b>128</b>	<b>157</b>	<b>196</b>	<b>231</b>	<b>273</b>	<b>308</b>	<b>1,606</b>	<b>1,606</b>		

Experience Band 2013-2022

Placement Band 2008-2022

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2013-2022  
SUMMARIZED BY AGE INTERVAL

Experience Band 2013-2022		Placement Band 2008-2022											
		Acquisitions, Transfers and Sales, Thousands of Dollars											
		During Year											
Year	Placed	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total During	Age
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
2008	-	-	-	-	-	-	60 <sup>a</sup>	-	-	-	-	-	13½-14½
2009	-	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2010	-	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2011	-	-	-	-	-	-	-	(5) <sup>b</sup>	-	-	60	-	10½-11½
2012	-	-	-	-	-	-	-	6 <sup>a</sup>	-	-	-	-	9½-10½
2013	-	-	-	-	-	-	-	-	-	-	(5)	-	8½-9½
2014	-	-	-	-	-	-	-	-	-	-	6	-	7½-8½
2015	-	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2016	-	-	-	-	-	-	-	(12) <sup>b</sup>	-	-	-	-	5½-6½
2017	-	-	-	-	-	-	-	-	22 <sup>a</sup>	-	-	-	4½-5½
2018	-	-	-	-	-	-	-	(19) <sup>b</sup>	-	-	10	-	3½-4½
2019	-	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2020	-	-	-	-	-	-	-	-	-	(102) <sup>c</sup>	(121)	-	1½-2½
2021	-	-	-	-	-	-	-	-	-	-	-	-	½-1½
2022	-	-	-	-	-	-	-	-	-	-	-	-	0-½
<b>Total</b>	-	-	-	-	-	-	60	(30)	22	(102)	(50)		

<sup>a</sup> Transfer Affecting Exposures at Beginning of Year

<sup>b</sup> Transfer Affecting Exposures at End of Year

<sup>c</sup> Sale with Continued Use

Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

### **Schedule of Plant Exposed to Retirement**

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2013 through 2022 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2018 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT  
 JANUARY 1 OF EACH YEAR 2013-2022  
 SUMMARIZED BY AGE INTERVAL

Year Placed (1)	Exposures, Thousands of Dollars											Total at		Age Interval (13)
	Annual Survivors at the Beginning of the Year											Beginning of		
	2013 (2)	2014 (3)	2015 (4)	2016 (5)	2017 (6)	2018 (7)	2019 (8)	2020 (9)	2021 (10)	2022 (11)	Age Interval (12)	Age Interval (13)		
2008	255	245	234	222	209	195	239	216	192	167	167	13½-14½		
2009	279	268	256	243	228	212	194	174	153	131	323	12½-13½		
2010	307	296	284	271	257	241	224	205	184	162	531	11½-12½		
2011	338	330	321	311	300	289	276	262	242	226	823	10½-11½		
2012	376	367	357	346	334	321	307	297	280	261	1,097	9½-10½		
2013	420 <sup>a</sup>	416	407	397	386	374	361	347	332	316	1,503	8½-9½		
2014		460 <sup>a</sup>	455	444	432	419	405	390	374	356	1,952	7½-8½		
2015			510 <sup>a</sup>	504	492	479	464	448	431	412	2,463	6½-7½		
2016				580 <sup>a</sup>	574	561	546	530	501	482	3,057	5½-6½		
2017					660 <sup>a</sup>	653	639	623	628	609	3,789	4½-5½		
2018						750 <sup>a</sup>	742	724	685	663	4,332	3½-4½		
2019							850 <sup>a</sup>	841	821	799	4,955	2½-3½		
2020								960 <sup>a</sup>	949	926	5,719	1½-2½		
2021									1,080 <sup>a</sup>	1,069	6,579	½-1½		
2022										1,220 <sup>a</sup>	7,490	0-½		
<b>Total</b>	<b>1,975</b>	<b>2,382</b>	<b>2,824</b>	<b>3,318</b>	<b>3,872</b>	<b>4,494</b>	<b>5,247</b>	<b>6,017</b>	<b>6,852</b>	<b>7,799</b>	<b>44,780</b>			

<sup>a</sup>Additions during the year

For the entire experience band 2013-2022, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

### **Original Life Table**

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	3,789,000	
Retirements from age 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 0.0377	= 0.9623
Percent surviving at age 5½	=	(88.15) x (0.9623)	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

SCHEDULE 4. ORIGINAL LIFE TABLE  
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2013-2022

Placement Band 2008-2022

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u>167</u>	<u>26</u>	0.1557	0.8443	42.24
					35.66
Total	<u>44,780</u>	<u>1,606</u>			

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.

The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

### **Smoothing the Original Survivor Curve**

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.

FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

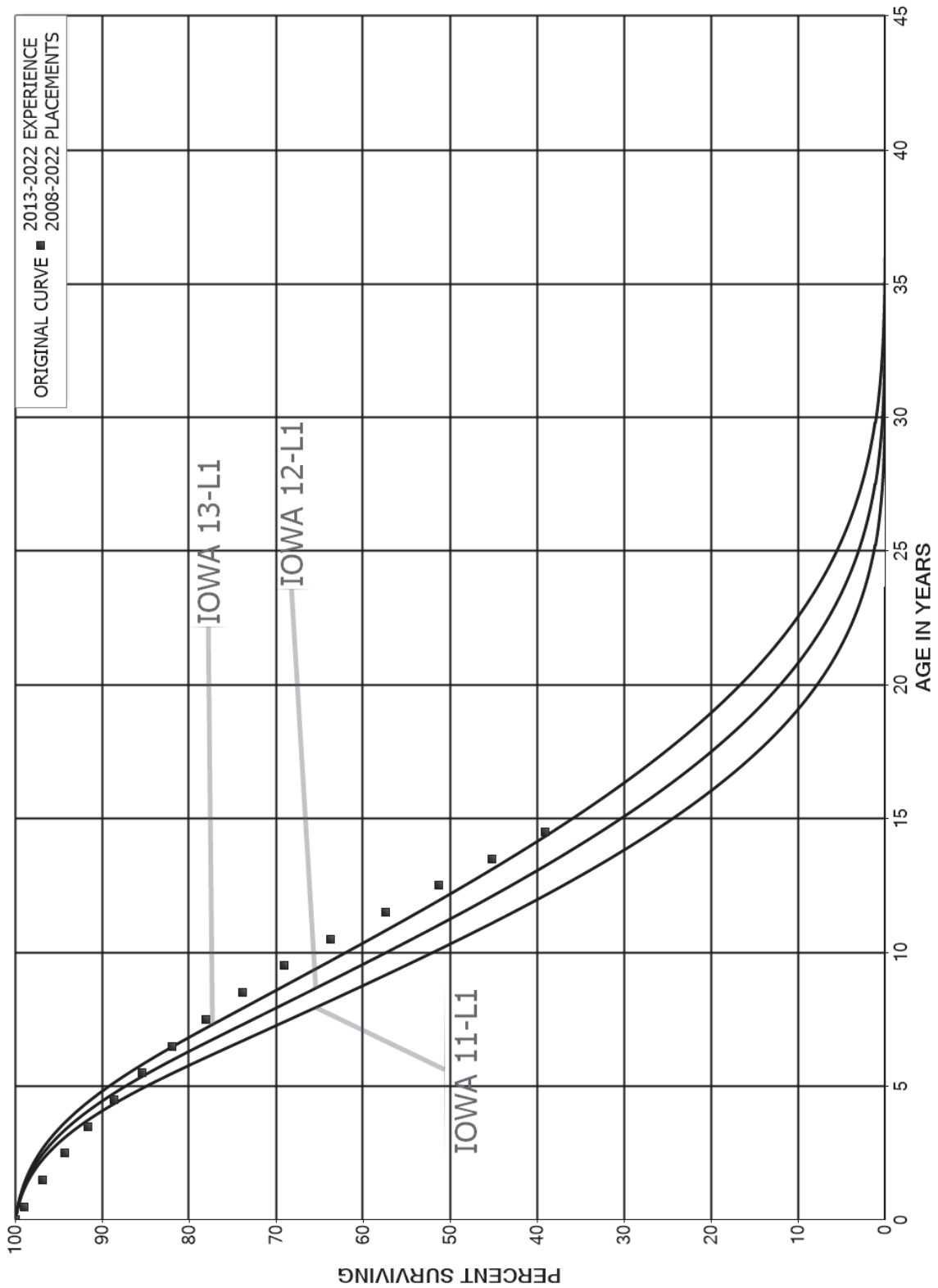




FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

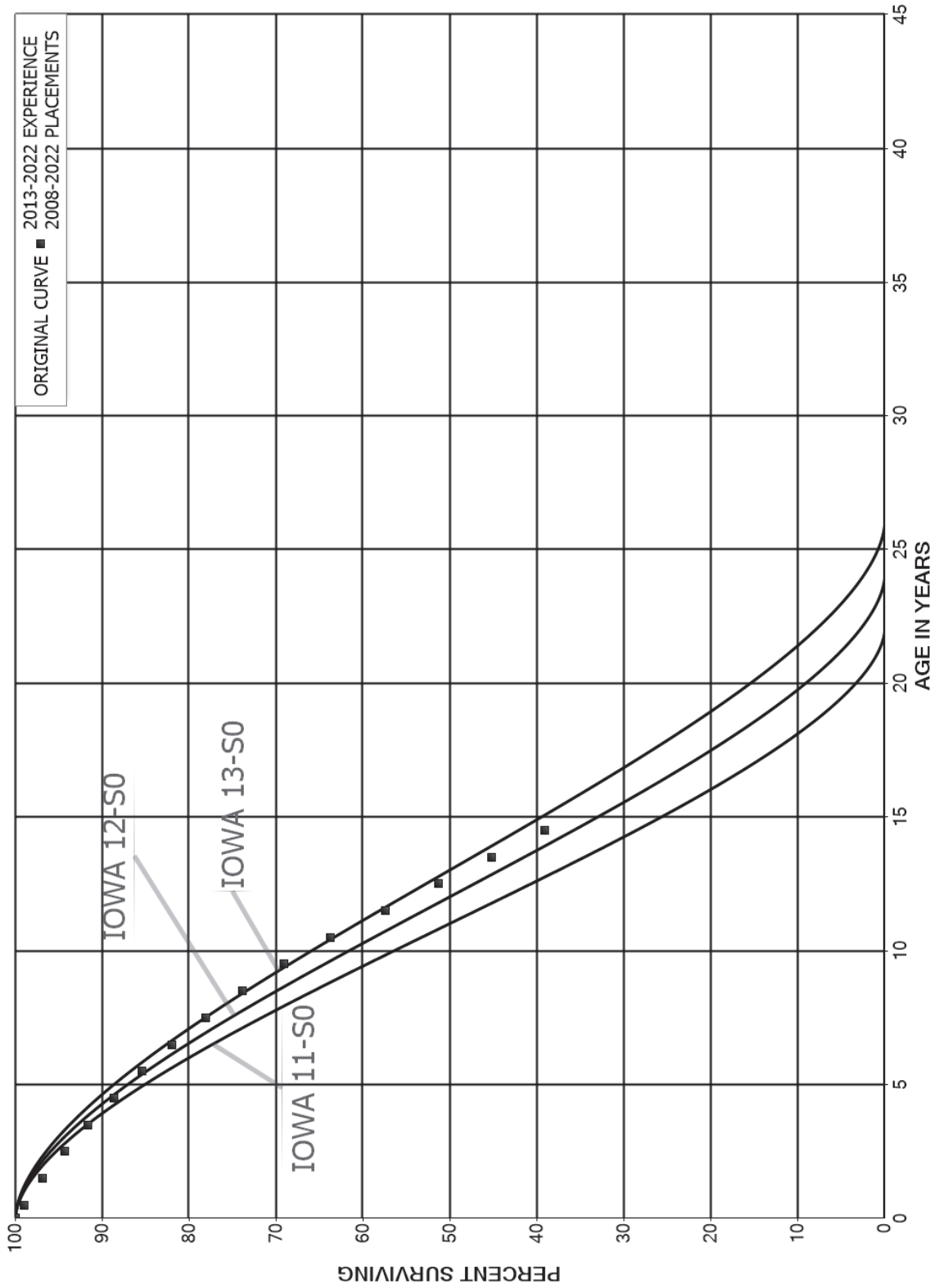


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

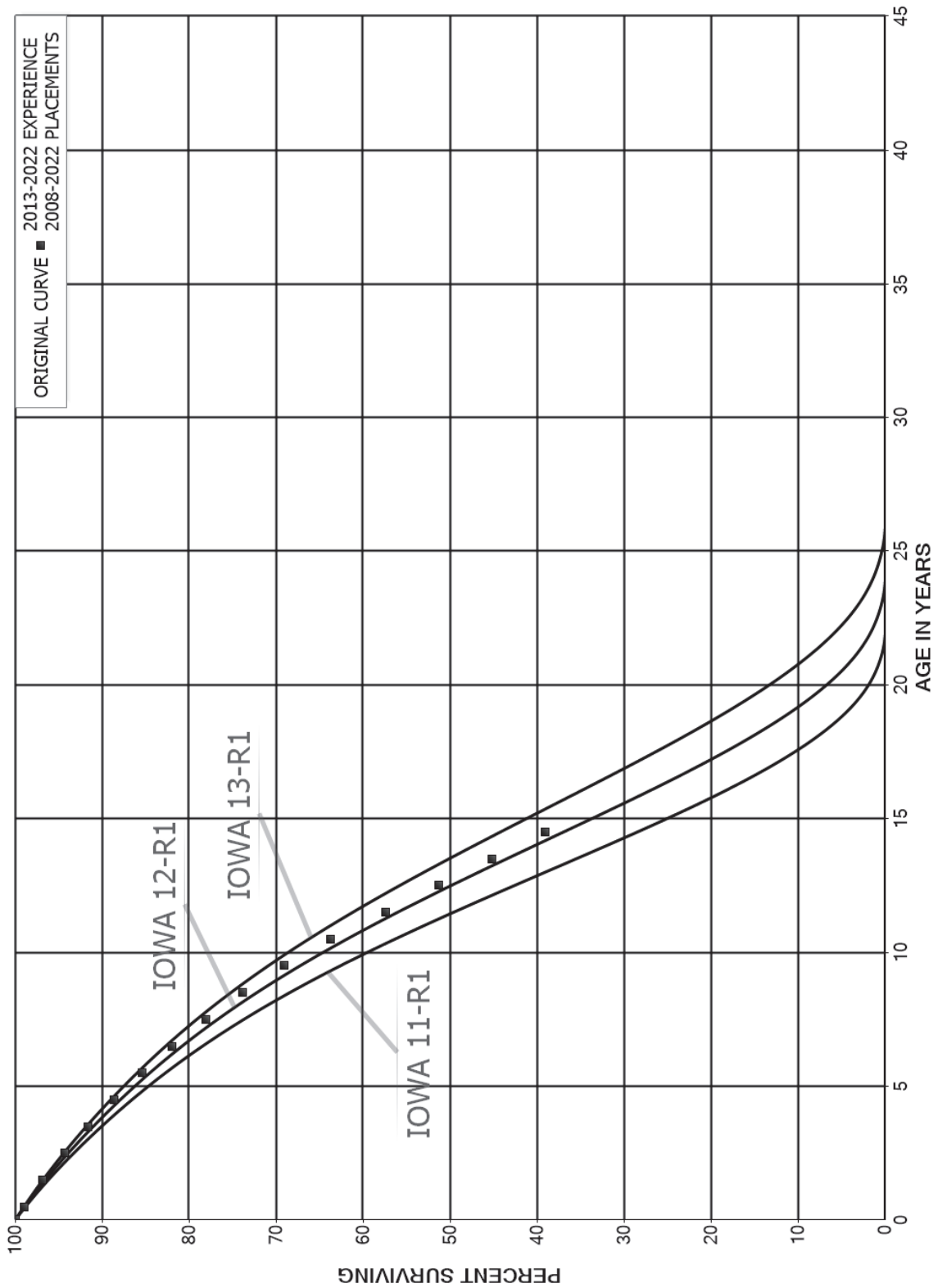
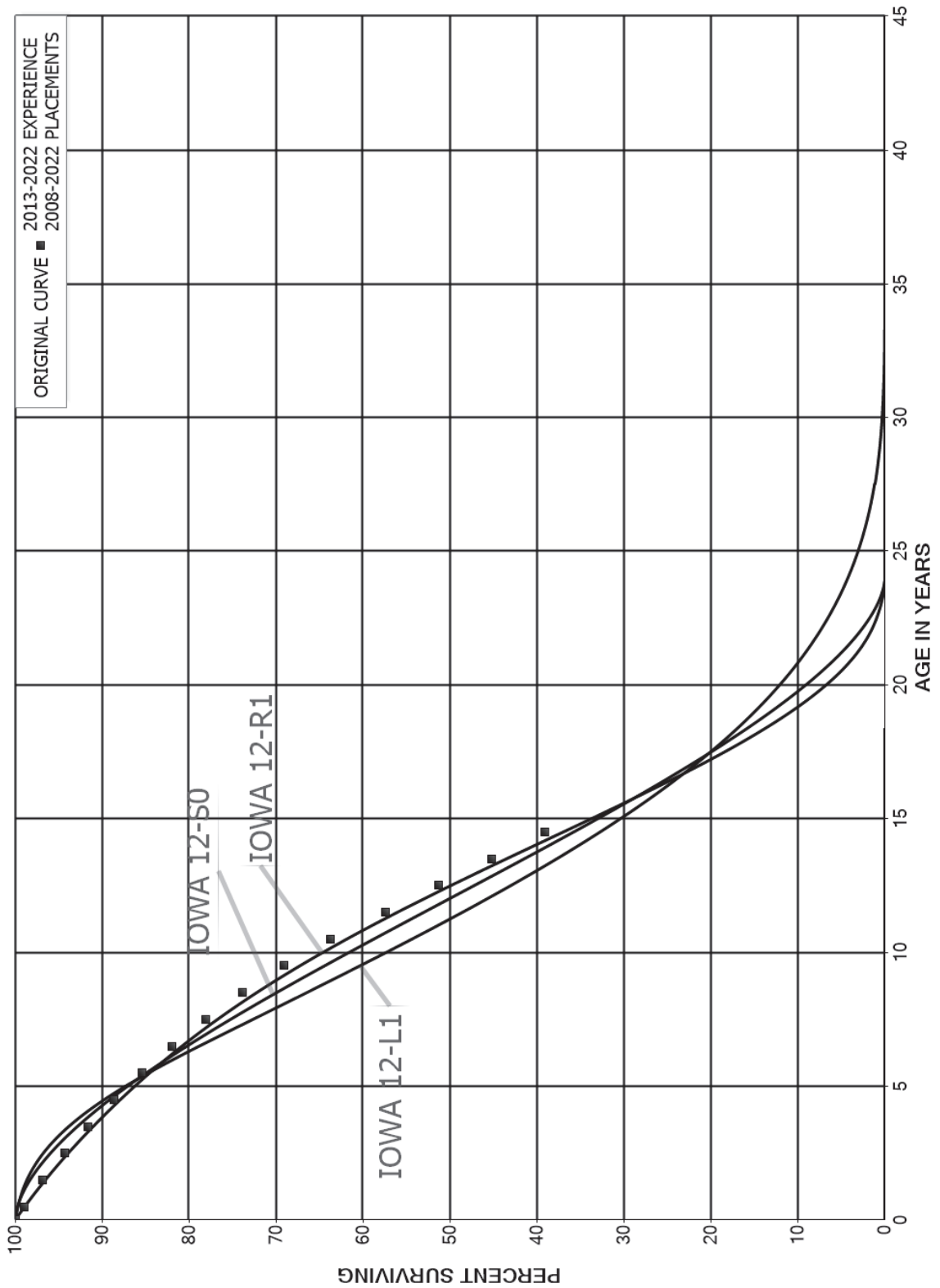


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES



---

## **PART III. SERVICE LIFE CONSIDERATIONS**

## PART III. SERVICE LIFE CONSIDERATIONS

### FIELD TRIPS

In order to be familiar with the operation of the Company and observe representative portions of the plant, field trips have been conducted during past studies. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during the most recent field trip.

#### September 28-29, 2021

North Mist Compressor Station  
Injection Well 44-03-65  
Mist (Miller Station) Compressor Station  
Sauvie Island City Gate Station  
Gasco Mixer Station (Measuring & Regulating Station)  
Linnton (Portland) LNG Plant  
Jean Road Regulating Station  
Sherwood Service Center

### SERVICE LIFE ANALYSIS

The service life estimates were based on informed judgment which considered a number of factors. The primary factors were the statistical analyses of data; current Company policies and outlook as determined during conversations with management; and the survivor curve estimates from previous studies of this company and other gas companies.

For many of the plant accounts and subaccounts for which survivor curves were estimated, the statistical analyses using the retirement rate method resulted in good to excellent indications of the survivor patterns experienced. These accounts represent 72 percent of depreciable plant. Generally, the information external to the statistics led to no

significant departure from the indicated survivor curves for the accounts listed below. The statistical support for the service life estimates is presented in the section beginning on page VII-2.

OIL GAS FACILITIES

305.50 Structures and Improvements - Other

OTHER PRODUCTION FACILITIES

305.11 Structures and Improvements – Gas Production

305.17 Structures and Improvements – Mixing Station

LOCAL STORAGE PLANT

361.00 Structures and Improvements

363.20 Vaporizing Equipment

363.50 CNG Refueling Facilities

DISTRIBUTION PLANT

375.00 Structures and Improvements

376.11 Mains – HP 4” and Less

376.12 Mains – HP 4” and Over

380.00 Services

381.00 Meters

381.10 Meters – Electric

381.20 Meters – ERT

382.00 Meter Installations

382.10 Meter Installations – Electric

382.20 Meter Installations – ERT

GENERAL PLANT

390.00 Structures and Improvements

390.10 Structures and Improvements – Source Control Plant

392.00 Transportation Equipment

396.00 Power Operated Equipment

The combined analysis of Accounts 376.11 - Mains, HP 4” and Less; and 376.12, Mains – HP 4” and Over, is used to illustrate the manner in which the study was conducted for the groups in the preceding list. The combined Accounts 376.11 and 376.12 represent 36 percent of the total depreciable plant. Aged plant accounting data have been compiled for the years 1910 through 2022. These data have been coded in the course of the

Company's normal record keeping according to account or property group, type of transaction, year in which the transaction took place, and year in which the gas plant was placed in service. The retirements, other plant transactions, and plant additions were analyzed by the retirement rate method.

The survivor curve estimate is based on the statistical indications for the period 1910 through 2022 and 1961 through 2022. The Iowa 67-R3 is an excellent fit of the original survivor curve. The 67-year service life is within the typical service life range of 55 to 70 years for mains. The 67-year life reflects the Company's plans and practices of the past and next few years. The previous estimate was the Iowa 68-R3.

The survivor curve estimate for Account 380, Services, is based on the statistical analyses of historical retirement experience for the periods 1919-2022, 1976-2015 and 1981-2015. The 65-R1.5 estimate for Account 380, Services, is a good fit of the original survivor curve developed from historical plant retirements for the period 1919 through 2022. However, the lack of recorded retirements in the last few years are not expected to continue so emphasis on the level of retirements through 2015 are expected into the future. The 65-R1.5 survivor curve sets forth the constant rates of retirement through approximately age 76. The 65-year average service life is above the upper end of the typical range of 40-55 years for services. The previous estimate was the Iowa 65-R2

The survivor curve estimates for the remaining accounts in the preceding list were based on similar statistical analyses and previous studies for this and other gas utilities. The remaining accounts were based primarily on judgment and estimates of other gas utilities.

## **Life Span Estimates**

Inasmuch as production plant consists of large units, the life span technique was employed in conjunction with the use of interim survivor curves which reflect interim retirements that occur prior to the ultimate retirement of the major unit. An interim survivor curve was estimated for each plant account, inasmuch as the rate of interim retirements differs from account to account. The interim survivor curves estimated for local storage plant were based on the retirement rate method of life analysis which incorporated experienced aged retirements for the period 1961 through 2022.

The depreciable life span estimates for storage facilities were the result of considering experienced life spans of similar facilities, the age of surviving plants, general operating characteristics of the station, major refurbishing, and discussions with management personnel concerning the probable long-term outlook for the stations.

The estimated survivor curves for local storage plant reflect the life span or forecast concept of life estimation. In the life span concept, an interim survivor curve is selected to describe the rates of retirement between installation and the final concurrent retirement of all facilities at a location. The forecast life span for the Linnton and Newport plants in the local storage plant accounts, is set forth in years from the date of their initial major installation. Although the Company currently does not have plans to replace these plants in the foreseeable future, the forecast retirement dates represent the midpoint of a range of dates during which significant replacement of the facilities presently in service will be required due to their age and improvements in technology.



	Probable Retirement <u>Date</u>	Initial Major <u>Installation</u>	Life <u>Span</u>
Local Storage			
Linnton	2036	1969,2016	67,20
Newport	2042	1977,2017	55,25

Similar studies were performed for the remaining plant accounts. Each of the judgments represented a consideration of statistical analyses of aged plant activity, management's outlook for the future, and the typical range of lives used by other gas companies.

The selected amortization periods for other General Plant accounts are described in the section "Calculated Annual and Accrued Amortization."

---

## PART IV. NET SALVAGE CONSIDERATIONS

## PART IV. NET SALVAGE CONSIDERATIONS

### NET SALVAGE ANALYSIS

The estimates of net salvage by account were based in part on historical data compiled for the years 1993 through 2022. Cost of removal and gross salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates by account are expressed as a percent of the original cost of plant retired.

### Net Salvage Considerations

The estimates of future net salvage are expressed as percentages of surviving plant in service, i.e., all future retirements. In cases in which removal costs are expected to exceed salvage receipts, a negative net salvage percentage is estimated. The net salvage estimates were based on judgment which incorporated analyses of historical cost of removal and gross salvage data, expectations with respect to future removal requirements and markets for retired equipment and materials.

The analyses of historical cost of removal and gross salvage data are presented in the section titled "Net Salvage Statistics" for the plant accounts for which the net salvage estimate relied partially on those analyses.

Statistical analyses of historical data for the period 1993 through 2022 contributed significantly toward the net salvage estimates for 11 plant accounts, representing 71 percent of the depreciable plant, as follows:

#### DISTRIBUTION PLANT

376.11	Mains – HP 4" and Less
376.12	Mains – HP 4" and Over
380.00	Services
381.00	Meters

381.20	Meters – ERT
382.00	Meter Installations
382.20	Meter Installations – ERT

GENERAL PLANT

390.00	Structures and Improvements
390.10	Structures and Improvements – Source Control Plant
392.00	Transportation Equipment
396.00	Power Operated Equipment

The combined analyses of Account 376.11, Mains – HP 4” and Less and Account 376.12, Mains – HP 4” and Over, is used to illustrate the manner in which the study was conducted for the groups in the preceding list. Net salvage data for the period 1993 through 2022 were analyzed for this account. The data include cost of removal, gross salvage and net salvage amounts and each of these amounts is expressed as a percent of the original cost of regular retirements. Three-year moving averages for the 1993-1995 through 2020-20220 periods were computed to smooth the annual amounts.

Cost of removal fluctuated considerably during the 30-year period, 1993-2022. The practices for assigning labor costs to removing pipe versus installing new pipe had not changed in recent years however, there is a plan to allocate more to installation of the new asset and slightly less to cost of removal as compared to the retirement cost. Cost of removal for the most recent five years averaged 390 percent.

Gross salvage has been minimal throughout the period with a slight increase in recent years due to a few projects. The most recent five-year average of 19 percent gross salvage reflects moderate salvage value for pipe.

The net salvage percent based on the overall period 1993 through 2022 is 95 percent negative net salvage. The range of estimates made by other gas companies for mains is negative 15 to negative 75 percent. Because the overall statistical indications

are above the upper end of the industry range and the most recent five-year period is well above the upper end of the range, the statistical indication of negative 75 percent was selected for the Company's mains. This also considers the expected reduction due to less cost of removal being assigned to main replacement projects.

The net salvage estimates for the remaining accounts were based on judgment incorporating estimates of previous studies of this and other gas utilities.

The net salvage estimates for the remaining plant accounts were estimated using the above-described process of historical indications, judgment and reviewing the typical range of estimates used by other gas companies. The results of the net salvage for each plant account are presented in account sequence beginning in the section titled "Net Salvage Statistics", page VIII-2.

Generally, the net salvage estimates for remaining general plant accounts were zero percent, consistent with amortization accounting.

---

**PART V. CALCULATION OF ANNUAL AND  
ACCRUED DEPRECIATION**

## PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

### GROUP DEPRECIATION PROCEDURES

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives, but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

#### Single Unit of Property

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4 + 6)} = \$100 \text{ per year.}$$

The accrued depreciation is:

$$\$1,000 \left(1 - \frac{6}{10}\right) = \$400.$$

## **Remaining Life Annual Accruals**

For the purpose of calculating remaining life accruals as of December 31, 2022, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of December 31, 2022, are set forth in the Results of Study section of the report.

## **Average Service Life Procedure**

In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining life is a directly weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future depreciation accruals if current forecasts of life characteristics are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account based upon the attained age and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$\text{Ratio} = 1 - \frac{\text{Average Remaining Life}}{\text{Average Service Life}}$$



## CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is proposed for a number of accounts that represent numerous units of property, but a very small portion of depreciable gas plant in service.

The accounts and their amortization periods are as follows:

<u>Account</u>	<u>Amortization Period, Years</u>
391.10 Office Furniture and Equipment	20
391.20 Office Furniture and Equipment – Computers	5
391.21 Office Furniture and Equipment – Computers Horizon	10
391.22 Office Furniture and Equipment – Computers TSA Security Directive	5
393.00 Stores Equipment	25
394.00 Tools, Shop and Garage Equipment - Non Specific	25
395.00 Laboratory Equipment	20
397.00 Communication Equipment	15
397.10 Communication Equipment – Mobile	10
397.20 Communication Equipment – Non Mobile and Telemeter	15
397.30 Communication Equipment – Telemeter Other	15
397.40 Communication Equipment – Telemeter Microwave	15
397.50 Communication Equipment – Telephone	10
398.10 Miscellaneous Equipment – Print Shop	15
398.20 Miscellaneous Equipment – Kitchen	15

398.30	Miscellaneous Equipment – Janitorial	20
398.40	Miscellaneous – Leased Buildings	20
398.50	Miscellaneous Equipment - Other	20

For the purpose of calculating annual amortization amounts as of December 31, 2022, the book depreciation reserve for each plant account or subaccount is assigned or allocated to vintages. The book reserve assigned to vintages with an age greater than the amortization period is equal to the vintage’s original cost. The remaining book reserve is allocated among vintages with an age less than the amortization period in proportion to the calculated accrued amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage’s age to its amortization period. The annual amortization amount is determined by dividing the future amortizations (original cost less allocated book reserve) by the remaining period of amortization for the vintage.

---

## PART VI. RESULTS OF STUDY

## **PART VI. RESULTS OF STUDY**

### **QUALIFICATION OF RESULTS**

The calculated annual and accrued depreciation are the principal results of the study. 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 net salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line remaining life method of depreciation, using the average service life procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

The annual depreciation accrual rates are applicable specifically to the gas plant in service as of December 31, 2022. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to December 31, 2022, is reasonable for a period of three to five years.

### **DESCRIPTION OF STATISTICAL SUPPORT**

The service life estimates were based on judgment that incorporated statistical analysis of retirement data, discussions with management and consideration of estimates made for other gas utilities. The results of the statistical analysis of service life are presented in the section beginning on page VII-2, within the supporting documents of this report.

For each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of

the original life table(s) plotted on the chart. The survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the curve type designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. The titles of the chart indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which were plotted. The experience band indicates the range of years for which retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The analyses of net salvage data are presented in the section titled, “Net Salvage Statistics”. The tabulations present annual cost of removal and gross salvage data, three-year moving averages and the most recent five-year average. Data are shown in dollars and as percentages of original costs retired.

## **DESCRIPTION OF DETAILED TABULATIONS**

A summary of the results of the study, as applied to the original cost of gas plant as of December 31, 2022, is presented on pages VI-5 through VI-8 of this report. The schedule sets forth the original cost, the book depreciation reserve, future accruals, the calculated annual depreciation rate and amount, and the composite remaining life related to gas plant.

The tables of the calculated annual depreciation applicable to depreciable assets as of December 31, 2022 are presented in account sequence starting on page IX-2 of the supporting documents. The tables indicate the estimated survivor curve and net salvage

percent for the account and set forth, for each installation year, the original cost, the calculated accrued depreciation, the allocated book reserve, future accruals, the remaining life, and the calculated annual accrual amount.

NORTHWEST NATURAL GAS COMPANY

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2022

DEPRECIABLE GROUP (1)	PROBABLE RETIREMENT YEAR (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2022 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	ACCUMULATED ANNUAL ACCRUAL RATE (9)=(8)/(5)	COMPOSITE REMAINING LIFE (10)=(7)/(8)
<b>DEPRECIABLE GAS PLANT</b>									
<b>INTANGIBLE PLANT</b>									
303.10 MISCELLANEOUS INTANGIBLE PLANT - SOFTWARE		15-SQ	0	116,460,287.26	22,267,386	94,192,901	18,980,427	16.30	5.0
303.11 MISCELLANEOUS INTANGIBLE PLANT - HORIZON		10-SQ	0	47,100,636.00	813,360	46,287,468	4,672,364	10.34	9.5
303.12 MISCELLANEOUS INTANGIBLE PLANT - SECURITY DIRECTIVE		5-SQ	0	6,653,764.00	221,249	6,432,515	1,429,448	21.48	4.5
303.20 MISCELLANEOUS INTANGIBLE PLANT - CUSTOMER INFORMATION SYSTEM		15-SQ	0	32,409,597.11	32,398,798	10,799	1,661	0.01	6.5
303.30 MISCELLANEOUS INTANGIBLE PLANT - INDUSTRIAL AND COMMERCIAL		10-SQ	0	4,146,951.00	4,146,951	0	0	-	-
303.70 MISCELLANEOUS INTANGIBLE PLANT - CRMS		5-SQ	0	15,263,454.19	5,820,831	9,442,623	2,684,448	17.59	3.5
303.71 MISCELLANEOUS INTANGIBLE PLANT - CLOUD-BASED SOFTWARE HORIZON		10-SQ	0	23,987,694.00	793,126	23,194,568	2,441,533	10.18	9.5
303.72 MISCELLANEOUS INTANGIBLE PLANT - CLOUD-BASED SOFTWARE TSA SECURITY DIRECTIVE		5-SQ	0	2,507,817.63	0	2,507,818	557,293	22.22	4.5
<b>TOTAL INTANGIBLE PLANT</b>				<b>248,530,403.19</b>	<b>66,461,721</b>	<b>182,068,682</b>	<b>30,967,174</b>	<b>12.46</b>	
<b>OIL GAS FACILITIES</b>									
305.50 STRUCTURES AND IMPROVEMENTS - OTHER		40-S1	(5)	13,156.00	13,814	0	0	-	-
311.70 LIQUEFIED PETROLEUM GAS EQUIPMENT		20-L0.5	(5)	4,033.00	8,066	(3,831)	0	-	-
311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT		20-L0.5	(5)	4,209.00	6,585	(2,166)	0	-	-
<b>TOTAL OIL GAS FACILITIES</b>				<b>21,398.00</b>	<b>28,465</b>	<b>(5,997)</b>	<b>0</b>	<b>-</b>	<b>-</b>
<b>OTHER PRODUCTION FACILITIES</b>									
305.11 STRUCTURES AND IMPROVEMENTS - GAS PRODUCTION		40-S1	(5)	8,320.00	8,736	0	0	-	-
305.17 STRUCTURES AND IMPROVEMENTS - MIXING STATION		40-S1	(5)	46,587.00	51,246	(2,330)	0	-	-
318.30 LIGHT OIL REFINING		45-S2.5	(5)	144,896.00	152,141	0	0	-	-
318.50 TAR PROCESSING		45-S2.5	(5)	243,551.00	255,729	0	0	-	-
319.00 GAS MIXING EQUIPMENT		30-R0.5	(5)	185,448.00	194,720	0	0	-	-
<b>TOTAL OTHER PRODUCTION FACILITIES</b>				<b>628,802.00</b>	<b>662,572</b>	<b>(2,330)</b>	<b>0</b>	<b>-</b>	<b>-</b>
<b>UNDERGROUND STORAGE PLANT</b>									
350.20 LAND RIGHTS		70-R4	0	109,624.94	36,703	72,922	1,547	1.41	47.1
351.00 STRUCTURES AND IMPROVEMENTS		60-R3	0	9,151,549.93	3,451,565	5,699,985	137,196	1.50	41.5
352.00 WELLS		50-S3	0	57,617,342.25	19,349,053	38,268,289	1,080,688	1.88	35.4
352.10 STORAGE LEASEHOLDS AND RIGHTS		55-S2.5	0	3,939,511.52	2,005,825	1,933,687	63,530	1.61	30.4
352.20 RESERVOIRS		55-S2.5	0	10,834,054.54	4,363,051	6,471,024	189,171	1.75	34.2
352.30 NONRECOVERABLE GAS		60-R4	0	6,440,889.82	3,961,845	2,479,045	81,957	1.27	30.2
353.00 LINES		55-S2.5	(15)	12,135,600.15	4,628,445	9,327,495	247,119	2.04	37.7
354.10 COMPRESSOR STATION EQUIPMENT - TURBINE 1		50-R3	(10)	4,154,699.66	2,400,497	2,169,673	104,563	2.52	20.7
354.20 COMPRESSOR STATION EQUIPMENT - TURBINE 2		50-R3	(10)	4,154,699.00	2,445,528	2,124,641	105,076	2.53	20.2
354.30 COMPRESSOR STATION EQUIPMENT - TURBINE 3		50-R3	(10)	14,640,514.36	6,099,608	10,004,968	346,508	2.37	28.9
354.40 COMPRESSOR STATION EQUIPMENT - TURBINE 4		50-R3	(10)	16,399,249.42	5,262,814	12,776,360	380,508	2.32	33.6
354.50 COMPRESSOR STATION EQUIPMENT - TURBINE 5		50-R3	(10)	3,739,476.97	880,290	3,233,135	85,291	2.28	37.9
354.60 COMPRESSOR STATION EQUIPMENT - TURBINE 6		50-R3	(10)	260,041.78	37,572	248,474	5,820	2.24	42.7
355.00 MEASURING AND REGULATING EQUIPMENT		45-S2	(10)	37,208,515.78	8,739,540	32,169,827	888,636	2.39	36.2
356.00 PURIFICATION EQUIPMENT		45-S2.5	(10)	28,609,985.05	1,156,666	29,093,818	690,868	2.40	42.1
357.00 OTHER EQUIPMENT		35-R4	0	5,261,772.21	1,272,416	3,989,356	137,398	2.61	29.0
<b>TOTAL UNDERGROUND STORAGE PLANT</b>				<b>214,857,527.38</b>	<b>66,091,398</b>	<b>160,082,689</b>	<b>4,545,886</b>	<b>2.12</b>	

NORTHWEST NATURAL GAS COMPANY

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2022

DEPRECIABLE GROUP (1)	PROBABLE RETIREMENT YEAR (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2022 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	ANNUAL ACCRUAL RATE (9)=(8)/(5)	COMPOSITE REMAINING LIFE (10)=(7)/(8)
<b>LOCAL STORAGE PLANT</b>									
361.00	STRUCTURES AND IMPROVEMENTS								
	LINNTON	60-R2.5	*	12,254,779.35	4,431,605	8,435,913	634,063	5.17	13.3
	NEWPORT	60-R2.5	*	12,196,541.26	4,708,351	8,098,017	429,910	3.52	18.8
	OTHER	60-R2.5	(5)	26,757.00	13,776	14,319	404	1.51	35.4
	TOTAL STRUCTURES AND IMPROVEMENTS			24,478,077.61	9,153,732	16,546,249	1,064,377	4.35	15.6
362.00	GAS HOLDERS								
	LINNTON	60-R3	*	4,556,064.35	2,934,624	2,532,653	197,638	4.34	12.8
	NEWPORT	60-R3	*	5,927,103.82	6,422,031	690,494	42,580	0.72	16.2
	OTHER	60-R3	(20)	1,600.14	1,297	623	15	0.94	41.5
	TOTAL GAS HOLDERS			10,484,768.31	9,357,952	3,223,770	240,233	2.29	13.4
363.10	LIQUEFACTION EQUIPMENT								
	LINNTON	55-R2	*	3,911,724.33	2,839,591	1,267,720	96,611	2.47	13.1
	NEWPORT	55-R2	*	22,533,332.49	7,757,409	15,902,590	858,897	3.81	18.5
	TOTAL LIQUEFACTION EQUIPMENT			26,445,056.82	10,597,000	17,170,310	955,508	3.61	18.0
363.20	VAPORIZING EQUIPMENT								
	LINNTON	40-R4	*	4,458,618.00	2,557,302	2,124,247	177,740	3.99	12.0
	NEWPORT	40-R4	*	6,718,208.96	995,368	6,058,751	321,164	4.78	18.9
	TOTAL VAPORIZING EQUIPMENT			11,176,826.96	3,552,670	8,182,998	498,904	4.46	16.4
363.30	COMPRESSOR EQUIPMENT								
	LINNTON	35-R1.5	*	412,186.22	212,017	220,779	17,115	4.15	12.9
	NEWPORT	35-R1.5	*	5,578,397.69	2,252,798	3,604,520	204,833	3.67	17.6
	TOTAL COMPRESSOR EQUIPMENT			5,990,583.91	2,464,815	3,825,299	221,948	3.70	17.2
363.40	MEASURING AND REGULATING EQUIPMENT								
	LINNTON	50-R4	*	5,494,974.35	1,190,349	4,579,374	353,632	6.44	12.9
	NEWPORT	50-R4	*	14,186,433.04	418,832	14,478,923	748,428	5.28	19.3
	TOTAL MEASURING AND REGULATING EQUIPMENT			19,681,407.39	1,609,181	19,056,297	1,102,060	5.60	17.3
363.50	CNG REFUELING FACILITIES	31-R3	(5)	3,051,295.49	1,751,707	1,452,153	77,148	2.53	18.8
363.60	LNG REFUELING FACILITIES	45-S2.5	(5)	739,473.00	740,065	36,382	1,932	0.26	18.8
	<b>TOTAL LOCAL STORAGE PLANT</b>			<b>102,047,489.49</b>	<b>39,227,122</b>	<b>69,495,468</b>	<b>4,162,110</b>	<b>4.08</b>	
<b>TRANSMISSION PLANT</b>									
365.20	LAND RIGHTS	75-R4	0	6,455,176.86	2,516,465	3,938,712	83,184	1.29	47.3
366.30	STRUCTURES AND IMPROVEMENTS	55-R3	0	1,546,072.61	466,962	1,079,091	26,854	1.74	40.2
367.00	MAINS	70-R3	(40)	219,580,954.30	42,473,126	264,940,210	4,360,905	1.99	60.8
367.21	MAINS - NORTH MIST	70-R3	(40)	1,994,562.39	1,313,728	1,478,687	32,812	1.65	45.1
367.22	MAINS - SOUTH MIST	70-R3	(40)	14,949,264.00	11,958,827	8,970,143	230,497	1.54	38.9
367.23	MAINS - SOUTH MIST	70-R3	(40)	34,881,341.36	17,269,532	31,564,346	657,160	1.88	48.0
367.24	MAINS - 11.7M S MIST	70-R3	(40)	17,466,181.89	7,506,282	16,946,373	330,403	1.89	51.3
367.25	MAINS - 12M NORTH S MIST	70-R3	(40)	18,613,651.15	7,703,372	18,355,740	354,915	1.91	51.7
367.26	MAINS - 38M NORTH S MIST	70-R3	(40)	68,232,675.58	28,417,009	67,108,737	1,298,108	1.90	51.7
368.00	COMPRESSOR STATION EQUIPMENT	45-R3	(5)	7,723,454.21	3,215,299	4,894,328	157,020	2.03	31.2
369.00	MEASURING AND REGULATING EQUIPMENT	50-R2.5	(10)	3,969,550.28	1,990,173	2,376,332	95,086	1.46	40.9
	<b>TOTAL TRANSMISSION PLANT</b>			<b>395,412,904.63</b>	<b>124,830,795</b>	<b>421,652,699</b>	<b>7,589,944</b>	<b>1.92</b>	



NORTHWEST NATURAL GAS COMPANY

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2022

DEPRECIABLE GROUP (1)	PROBABLE RETIREMENT YEAR (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2022 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	ACCURUAL RATE (9)=(8)/(5)	COMPOSITE REMAINING LIFE (10)=(7)/(8)
<b>DISTRIBUTION PLANT</b>									
374.20		75-R3	0	1,886,180.64	1,722,154	164,027	2,498	0.13	65.7
375.00		35-S0	0	1,519,558.28	183,826	1,335,732	57,132	3.76	23.4
376.11		67-R3	(65)	703,204,530.08	386,134,235	914,794,146	19,684,854	2.80	46.5
376.12		67-R3	(65)	752,871,136.38	285,873,611	1,106,937,991	22,032,850	2.93	50.2
377.00		30-S3	(5)	818,380.00	710,080	149,219	12,808	1.57	11.7
378.00		55-R2.5	(25)	49,852,296.35	15,051,134	47,264,239	1,086,633	2.18	43.5
379.00		50-R2	(25)	21,362,517.65	4,057,325	22,645,822	507,268	2.37	44.6
380.00		65-R1.5	(110)	954,703,727.69	470,394,277	1,534,483,551	30,191,891	3.16	50.8
381.00		30-L1	0	113,008,940.35	19,526,342	93,482,598	4,447,427	3.94	21.0
381.20		16-S4	0	1,696,938.46	1,425,093	271,845	36,150	2.13	7.5
381.20		14-R0.5	0	40,620,035.75	16,825,416	23,794,620	3,143,943	7.74	7.6
382.00		26-L1	0	63,039,649.54	4,667,901	58,381,749	3,866,770	6.12	15.1
382.10		14-L3	0	481,019.77	247,267	233,753	45,655	9.49	5.1
382.20		18-R3	0	12,014,009.73	6,187,216	5,826,794	555,956	4.63	10.5
383.00		35-S2	0	2,820,768.52	622,862	2,197,907	80,662	2.86	27.2
386.00		10-S6	0	1,162,110.41	634,047	528,063	117,347	10.10	4.5
387.20		30-S3	0	173,858.98	149,168	24,691	1,710	0.98	14.4
387.20		23-S0.5	0	96,424.00	96,424	0	0	-	-
387.30		25-S4	0	72,671.00	72,671	0	0	-	-
<b>TOTAL DISTRIBUTION PLANT</b>				<b>2,721,404,755.58</b>	<b>1,214,571,049</b>	<b>3,812,516,747</b>	<b>85,861,554</b>	<b>3.16</b>	
<b>GENERAL PLANT</b>									
390.00		48-S0	(5)	135,703,280.39	18,819,682	123,668,762	2,895,955	2.13	42.7
390.10		48-S0	(5)	23,033,564.87	7,007,847	17,177,396	420,545	1.83	40.8
391.10		20-SQ	0	17,962,724.22	5,451,054	12,511,670	897,344	5.00	13.9
391.20		5-SQ	0	44,259,126.85	24,520,664	19,738,463	8,849,891	20.00	2.2
391.21		10-SQ	0	2,198,614.00	109,931	2,088,683	219,861	10.00	9.5
391.22		5-SQ	0	24,886,345.00	2,488,634	22,397,711	4,977,269	20.00	4.5
392.00		13-L2	15	57,491,560.78	18,993,988	29,873,839	3,339,066	5.81	8.9
393.00		FULLY ACCRUED		119,406.00	119,406	0	0	-	-
394.00		25-SQ	0	18,690,183.15	6,616,238	12,073,945	747,605	4.00	16.2
396.00		15-L1.5	20	16,114,047.55	3,027,114	9,864,124	893,114	5.54	11.0
397.00		15-SQ	0	49,716.14	31,488	18,230	3,315	6.67	5.5
397.10		10-SQ	0	4,286,109.04	1,495,841	2,790,268	428,610	10.00	6.5
397.20		15-SQ	0	9,957.65	6,306	3,652	664	6.67	5.5
397.30		15-SQ	0	11,912,893.50	2,476,276	9,436,618	794,196	6.67	11.9
397.40		15-SQ	0	5,969,596.82	1,722,641	4,246,956	398,156	6.67	10.7
397.50		10-SQ	0	340,671.19	280,126	60,545	34,067	10.00	1.8
398.10		15-SQ	0	4,359.31	3,633	726	290	6.67	2.5
398.20		15-SQ	0	28,864.84	13,352	15,513	1,924	6.67	8.1
398.30		FULLY ACCRUED		14,873.00	14,873	0	0	-	-
398.40		FULLY ACCRUED		10,120.00	10,120	0	0	-	-
398.50		FULLY ACCRUED		66,739.00	66,739	0	0	-	-
<b>TOTAL GENERAL PLANT</b>				<b>383,152,755.30</b>	<b>93,275,963</b>	<b>265,967,101</b>	<b>24,901,872</b>	<b>6.86</b>	

NORTHWEST NATURAL GAS COMPANY

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2022

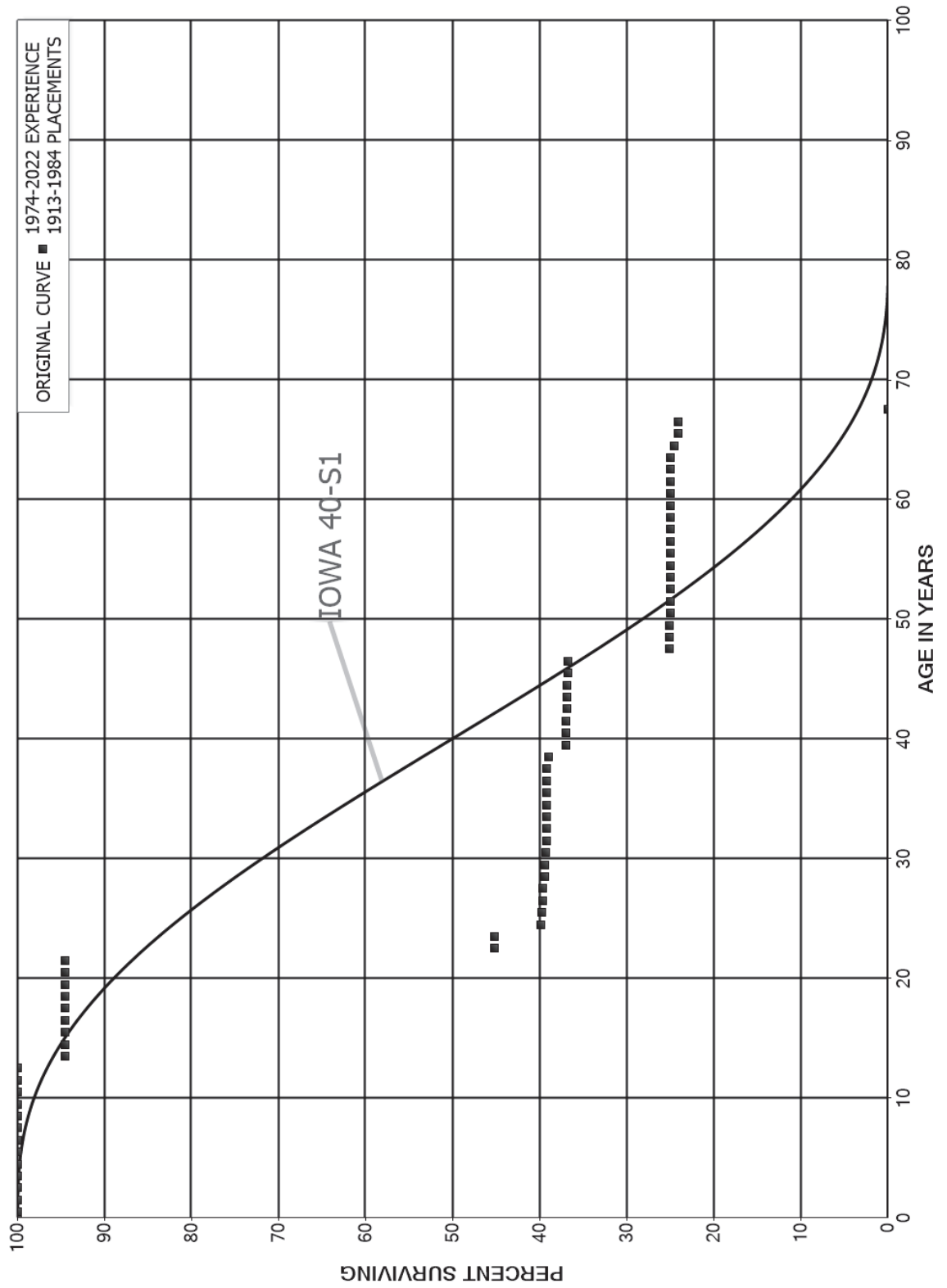
DEPRECIABLE GROUP (1)	PROBABLE RETIREMENT YEAR (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2022 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	ACCURAL RATE (9)=(8)/(5)	COMPOSITE REMAINING LIFE (10)=(7)/(8)
<b>RESERVE ADJUSTMENT FOR AMORTIZATION</b>									
391-10 OFFICE FURNITURE AND EQUIPMENT					1,698,555		(339,711)	**	
391-20 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS					(1,045,429)		209,086	**	
391-21 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS HORIZON					(1,129)		226	**	
391-22 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS TSA SECURITY DIRECTIVE					(1,424,288)		284,858	**	
394-00 TOOLS, SHOP AND GARAGE EQUIPMENT					681,126		(136,225)	**	
395-00 LABORATORY EQUIPMENT					(39)		8	**	
397-00 COMMUNICATION EQUIPMENT					5,096		(1,019)	**	
397-10 COMMUNICATION EQUIPMENT - MOBILE					(90,729)		18,146	**	
397-20 COMMUNICATION EQUIPMENT - NON-MOBILE AND TELEMETER					(65,129)		13,026	**	
397-30 COMMUNICATION EQUIPMENT - TELEMETER OTHER					(426,912)		85,382	**	
397-40 COMMUNICATION EQUIPMENT - TELEMETER MICROWAVE					(329,456)		65,891	**	
397-50 COMMUNICATION EQUIPMENT - TELEPHONE					77,743		(15,549)	**	
398-10 MISCELLANEOUS EQUIPMENT - PRINT SHOP					(1,248)		250	**	
398-20 MISCELLANEOUS EQUIPMENT - KITCHEN					(1,093)		219	**	
<b>TOTAL RESERVE ADJUSTMENT FOR AMORTIZATION</b>					<b>(922,932)</b>		<b>184,588</b>		
<b>TOTAL DEPRECIABLE GAS PLANT</b>				<b>4,046,056,035.57</b>	<b>1,604,226,143</b>	<b>4,911,775,049</b>	<b>159,213,128</b>	<b>3.91</b>	
<b>NONDEPRECIABLE GAS PLANT</b>									
301-00 ORGANIZATION				1,174.00					
302-00 FRANCHISES AND CONSENTS				83,621.00					
304-10 LAND				24,996.00					
350-10 LAND				106,549.00					
360-11 LAND - LNG LINNONTON				83,598.00					
360-12 LAND - LNG NEWPORT				536,433.00	(242)				
365-10 LAND - OTHER				106,557.00					
374-10 LAND				1,015,597.00					
389-00 LAND				211,692.00	487,235				
ROU UTILITY LEASE				13,118,401.00	13,274,179				
FIN UTILITY LEASE					132,879				
<b>TOTAL NONDEPRECIABLE GAS PLANT</b>				<b>15,288,620.00</b>	<b>13,894,051</b>				
<b>TOTAL GAS PLANT IN SERVICE</b>				<b>4,061,344,655.57</b>	<b>1,618,120,194</b>				

\* INDICATES INTERIM SURVIVOR CURVE. EACH UNIT HAS A UNIQUE TERMINAL DATE.  
 \*\* 5-YEAR AMORTIZATION OF RESERVE RELATED TO AMORTIZATION ACCOUNTING.

---

## **PART VII. SERVICE LIFE STATISTICS**

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNTS 305.11, 305.17 AND 305.50 STRUCTURES AND IMPROVEMENTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 305.11, 305.17 AND 305.50 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1913-1984			EXPERIENCE BAND 1974-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,156		0.0000	1.0000	100.00
0.5	13,156		0.0000	1.0000	100.00
1.5	13,156		0.0000	1.0000	100.00
2.5	13,156		0.0000	1.0000	100.00
3.5	13,156		0.0000	1.0000	100.00
4.5	13,156		0.0000	1.0000	100.00
5.5	13,156		0.0000	1.0000	100.00
6.5	14,409		0.0000	1.0000	100.00
7.5	16,221		0.0000	1.0000	100.00
8.5	16,221		0.0000	1.0000	100.00
9.5	16,221		0.0000	1.0000	100.00
10.5	24,541		0.0000	1.0000	100.00
11.5	22,729		0.0000	1.0000	100.00
12.5	22,729	1,253	0.0551	0.9449	100.00
13.5	21,476		0.0000	1.0000	94.49
14.5	21,476		0.0000	1.0000	94.49
15.5	34,048		0.0000	1.0000	94.49
16.5	34,048		0.0000	1.0000	94.49
17.5	87,775		0.0000	1.0000	94.49
18.5	88,093		0.0000	1.0000	94.49
19.5	88,420		0.0000	1.0000	94.49
20.5	163,371		0.0000	1.0000	94.49
21.5	163,715	85,500	0.5222	0.4778	94.49
22.5	78,108		0.0000	1.0000	45.14
23.5	78,545	9,163	0.1167	0.8833	45.14
24.5	69,586	211	0.0030	0.9970	39.88
25.5	69,375	327	0.0047	0.9953	39.75
26.5	94,601		0.0000	1.0000	39.57
27.5	94,601	344	0.0036	0.9964	39.57
28.5	94,257		0.0000	1.0000	39.42
29.5	94,257	437	0.0046	0.9954	39.42
30.5	93,820	204	0.0022	0.9978	39.24
31.5	94,256		0.0000	1.0000	39.15
32.5	98,581		0.0000	1.0000	39.15
33.5	98,581		0.0000	1.0000	39.15
34.5	98,581		0.0000	1.0000	39.15
35.5	98,671		0.0000	1.0000	39.15
36.5	98,671		0.0000	1.0000	39.15
37.5	98,720	640	0.0065	0.9935	39.15
38.5	85,197	4,325	0.0508	0.9492	38.90

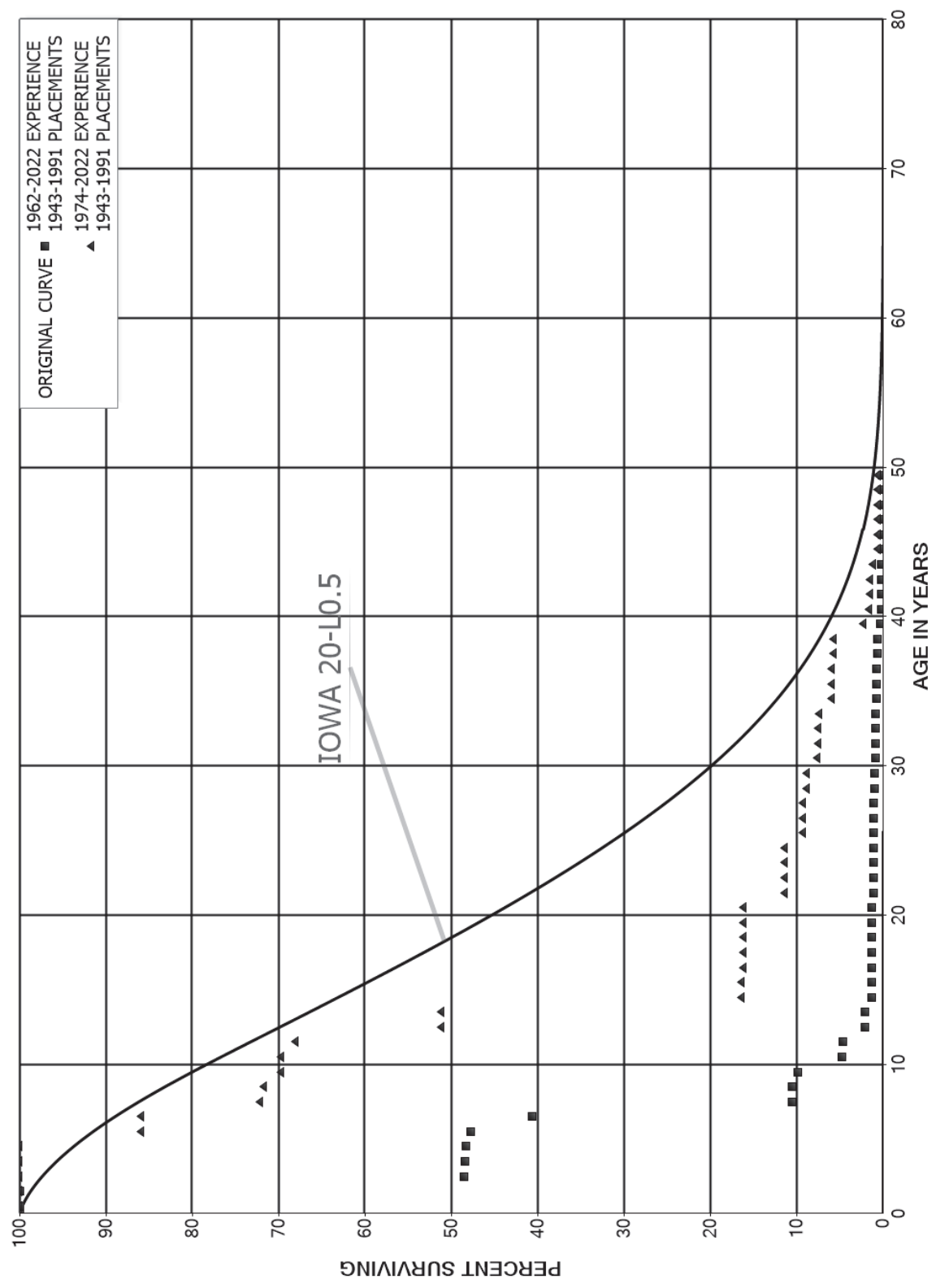
NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 305.11, 305.17 AND 305.50 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1913-1984			EXPERIENCE BAND 1974-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	80,872		0.0000	1.0000	36.93
40.5	80,872		0.0000	1.0000	36.93
41.5	80,872	90	0.0011	0.9989	36.93
42.5	83,479		0.0000	1.0000	36.89
43.5	83,749	49	0.0006	0.9994	36.89
44.5	83,700	273	0.0033	0.9967	36.86
45.5	83,427		0.0000	1.0000	36.74
46.5	80,730	25,553	0.3165	0.6835	36.74
47.5	55,177		0.0000	1.0000	25.11
48.5	55,239		0.0000	1.0000	25.11
49.5	55,239	270	0.0049	0.9951	25.11
50.5	54,969		0.0000	1.0000	24.99
51.5	54,969		0.0000	1.0000	24.99
52.5	54,969		0.0000	1.0000	24.99
53.5	54,969		0.0000	1.0000	24.99
54.5	54,986	62	0.0011	0.9989	24.99
55.5	54,924		0.0000	1.0000	24.96
56.5	54,924		0.0000	1.0000	24.96
57.5	55,941		0.0000	1.0000	24.96
58.5	56,791		0.0000	1.0000	24.96
59.5	48,471		0.0000	1.0000	24.96
60.5	54,110	17	0.0003	0.9997	24.96
61.5	54,093		0.0000	1.0000	24.95
62.5	54,093		0.0000	1.0000	24.95
63.5	54,093	1,017	0.0188	0.9812	24.95
64.5	51,053	850	0.0166	0.9834	24.49
65.5	50,203		0.0000	1.0000	24.08
66.5	5,639	5,639	1.0000		24.08
67.5					

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNTS 311.70 AND 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 311.70 AND 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1943-1991

EXPERIENCE BAND 1962-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	63,128		0.0000	1.0000	100.00
0.5	68,628		0.0000	1.0000	100.00
1.5	141,412	72,784	0.5147	0.4853	100.00
2.5	75,680	200	0.0026	0.9974	48.53
3.5	70,180	150	0.0021	0.9979	48.40
4.5	87,543	1,077	0.0123	0.9877	48.30
5.5	89,904	13,319	0.1481	0.8519	47.70
6.5	90,123	66,829	0.7415	0.2585	40.64
7.5	91,254	203	0.0022	0.9978	10.50
8.5	106,323	6,441	0.0606	0.9394	10.48
9.5	106,542	55,848	0.5242	0.4758	9.85
10.5	106,855	1,207	0.0113	0.9887	4.68
11.5	201,105	109,727	0.5456	0.4544	4.63
12.5	91,708		0.0000	1.0000	2.10
13.5	264,428	101,568	0.3841	0.6159	2.10
14.5	172,942		0.0000	1.0000	1.30
15.5	173,374	513	0.0030	0.9970	1.30
16.5	173,767	47	0.0003	0.9997	1.29
17.5	174,013		0.0000	1.0000	1.29
18.5	196,426		0.0000	1.0000	1.29
19.5	196,426	368	0.0019	0.9981	1.29
20.5	196,058	26,365	0.1345	0.8655	1.29
21.5	169,693	136	0.0008	0.9992	1.12
22.5	169,557		0.0000	1.0000	1.12
23.5	169,557		0.0000	1.0000	1.12
24.5	169,557	12,335	0.0727	0.9273	1.12
25.5	157,222		0.0000	1.0000	1.03
26.5	157,222		0.0000	1.0000	1.03
27.5	157,222	7,052	0.0449	0.9551	1.03
28.5	150,170		0.0000	1.0000	0.99
29.5	150,170	17,363	0.1156	0.8844	0.99
30.5	132,807	2,361	0.0178	0.9822	0.87
31.5	130,446	219	0.0017	0.9983	0.86
32.5	130,227	1,131	0.0087	0.9913	0.86
33.5	129,096	25,301	0.1960	0.8040	0.85
34.5	103,795	219	0.0021	0.9979	0.68
35.5	103,576	313	0.0030	0.9970	0.68
36.5	103,263	3,205	0.0310	0.9690	0.68
37.5	100,058	180	0.0018	0.9982	0.66
38.5	99,878	62,202	0.6228	0.3772	0.66



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 311.70 AND 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1943-1991			EXPERIENCE BAND 1962-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	37,676	11,900	0.3159	0.6841	0.25
40.5	25,776	432	0.0168	0.9832	0.17
41.5	25,344	393	0.0155	0.9845	0.17
42.5	24,951	6,196	0.2483	0.7517	0.16
43.5	18,755	10,513	0.5605	0.4395	0.12
44.5	8,242		0.0000	1.0000	0.05
45.5	8,242		0.0000	1.0000	0.05
46.5	8,242		0.0000	1.0000	0.05
47.5	4,033		0.0000	1.0000	0.05
48.5	4,033		0.0000	1.0000	0.05
49.5	627		0.0000	1.0000	0.05
50.5	627		0.0000	1.0000	0.05
51.5	627		0.0000	1.0000	0.05
52.5	627		0.0000	1.0000	0.05
53.5	627		0.0000	1.0000	0.05
54.5	627		0.0000	1.0000	0.05
55.5	627		0.0000	1.0000	0.05
56.5	627		0.0000	1.0000	0.05
57.5	627		0.0000	1.0000	0.05
58.5	403		0.0000	1.0000	0.05
59.5					0.05

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 311.70 AND 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1943-1991			EXPERIENCE BAND 1974-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,209		0.0000	1.0000	100.00
0.5	13,115		0.0000	1.0000	100.00
1.5	13,115		0.0000	1.0000	100.00
2.5	13,115		0.0000	1.0000	100.00
3.5	7,615		0.0000	1.0000	100.00
4.5	7,615	1,077	0.1414	0.8586	100.00
5.5	7,615		0.0000	1.0000	85.86
6.5	7,983	1,285	0.1610	0.8390	85.86
7.5	34,348	203	0.0059	0.9941	72.04
8.5	34,484	980	0.0284	0.9716	71.61
9.5	34,708		0.0000	1.0000	69.58
10.5	50,793	1,207	0.0238	0.9762	69.58
11.5	63,128	15,682	0.2484	0.7516	67.92
12.5	47,446		0.0000	1.0000	51.05
13.5	149,014	101,568	0.6816	0.3184	51.05
14.5	54,498		0.0000	1.0000	16.25
15.5	54,498	513	0.0094	0.9906	16.25
16.5	71,861	47	0.0007	0.9993	16.10
17.5	74,222		0.0000	1.0000	16.09
18.5	74,441		0.0000	1.0000	16.09
19.5	75,572	368	0.0049	0.9951	16.09
20.5	90,273	26,365	0.2921	0.7079	16.01
21.5	64,127	136	0.0021	0.9979	11.34
22.5	64,304		0.0000	1.0000	11.31
23.5	64,509		0.0000	1.0000	11.31
24.5	64,839	12,335	0.1902	0.8098	11.31
25.5	123,656		0.0000	1.0000	9.16
26.5	133,738		0.0000	1.0000	9.16
27.5	134,170	7,052	0.0526	0.9474	9.16
28.5	127,511		0.0000	1.0000	8.68
29.5	127,757	17,363	0.1359	0.8641	8.68
30.5	132,807	2,361	0.0178	0.9822	7.50
31.5	130,446	219	0.0017	0.9983	7.37
32.5	130,227	1,131	0.0087	0.9913	7.35
33.5	129,096	25,301	0.1960	0.8040	7.29
34.5	103,795	219	0.0021	0.9979	5.86
35.5	103,576	313	0.0030	0.9970	5.85
36.5	103,263	3,205	0.0310	0.9690	5.83
37.5	100,058	180	0.0018	0.9982	5.65
38.5	99,878	62,202	0.6228	0.3772	5.64

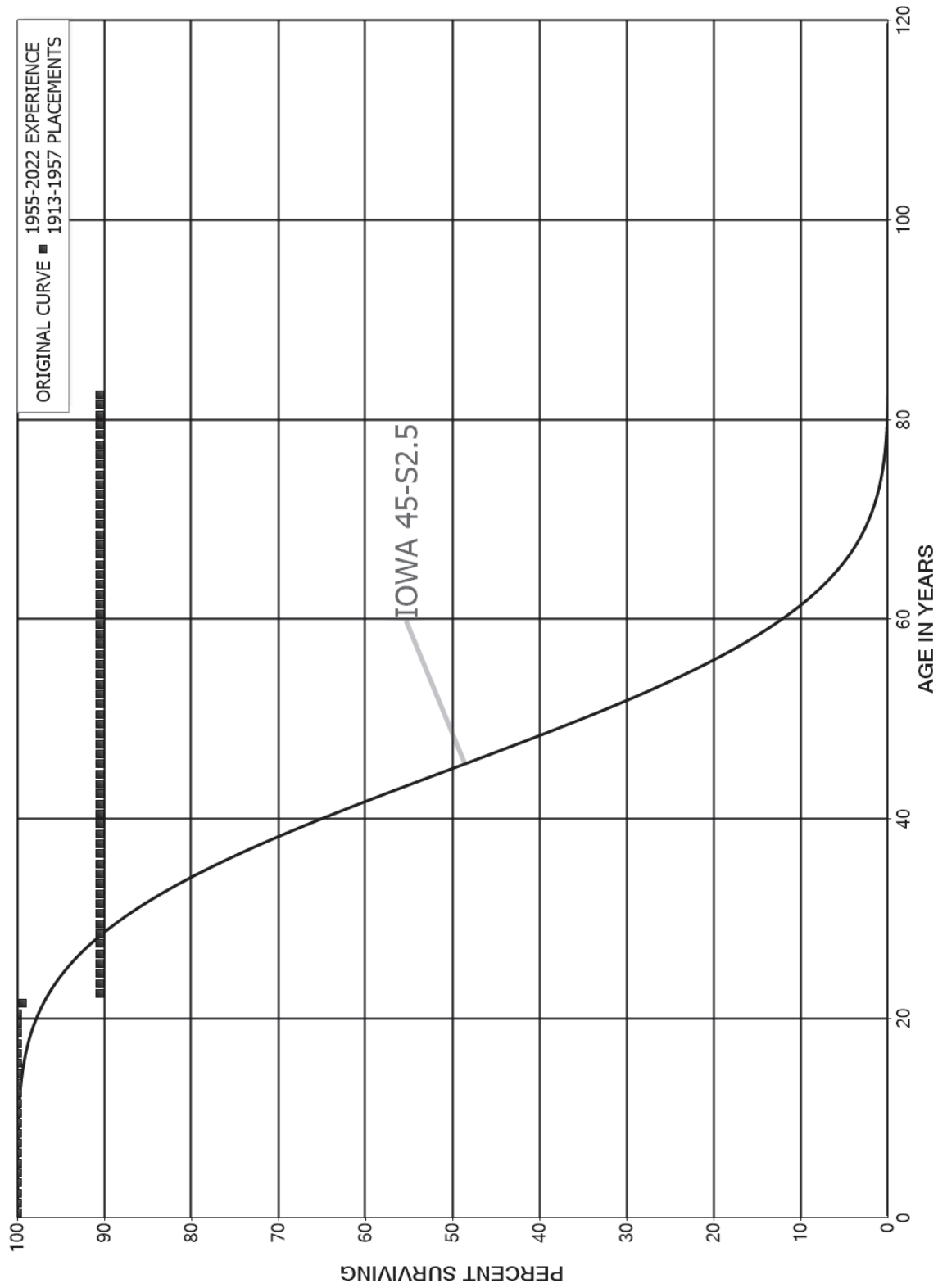
NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 311.70 AND 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1943-1991			EXPERIENCE BAND 1974-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	37,676	11,900	0.3159	0.6841	2.13
40.5	25,776	432	0.0168	0.9832	1.46
41.5	25,344	393	0.0155	0.9845	1.43
42.5	24,951	6,196	0.2483	0.7517	1.41
43.5	18,755	10,513	0.5605	0.4395	1.06
44.5	8,242		0.0000	1.0000	0.47
45.5	8,242		0.0000	1.0000	0.47
46.5	8,242		0.0000	1.0000	0.47
47.5	4,033		0.0000	1.0000	0.47
48.5	4,033		0.0000	1.0000	0.47
49.5	627		0.0000	1.0000	0.47
50.5	627		0.0000	1.0000	0.47
51.5	627		0.0000	1.0000	0.47
52.5	627		0.0000	1.0000	0.47
53.5	627		0.0000	1.0000	0.47
54.5	627		0.0000	1.0000	0.47
55.5	627		0.0000	1.0000	0.47
56.5	627		0.0000	1.0000	0.47
57.5	627		0.0000	1.0000	0.47
58.5	403		0.0000	1.0000	0.47
59.5					0.47

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNTS 318.30 AND 318.50 RESIDUAL REFINING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 318.30 AND 318.50 RESIDUAL REFINING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1913-1957			EXPERIENCE BAND 1955-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,189		0.0000	1.0000	100.00
0.5	10,049		0.0000	1.0000	100.00
1.5	136,338		0.0000	1.0000	100.00
2.5	151,712		0.0000	1.0000	100.00
3.5	179,823		0.0000	1.0000	100.00
4.5	194,359		0.0000	1.0000	100.00
5.5	194,950		0.0000	1.0000	100.00
6.5	201,811		0.0000	1.0000	100.00
7.5	259,718		0.0000	1.0000	100.00
8.5	259,718		0.0000	1.0000	100.00
9.5	259,718		0.0000	1.0000	100.00
10.5	267,855		0.0000	1.0000	100.00
11.5	319,464		0.0000	1.0000	100.00
12.5	319,464		0.0000	1.0000	100.00
13.5	384,746		0.0000	1.0000	100.00
14.5	408,285		0.0000	1.0000	100.00
15.5	408,285		0.0000	1.0000	100.00
16.5	408,285		0.0000	1.0000	100.00
17.5	408,285	263	0.0006	0.9994	100.00
18.5	408,022		0.0000	1.0000	99.94
19.5	408,022		0.0000	1.0000	99.94
20.5	408,022	2,294	0.0056	0.9944	99.94
21.5	405,728	36,343	0.0896	0.9104	99.37
22.5	369,385		0.0000	1.0000	90.47
23.5	369,385		0.0000	1.0000	90.47
24.5	369,385		0.0000	1.0000	90.47
25.5	369,385		0.0000	1.0000	90.47
26.5	369,385		0.0000	1.0000	90.47
27.5	369,385		0.0000	1.0000	90.47
28.5	376,125		0.0000	1.0000	90.47
29.5	376,125		0.0000	1.0000	90.47
30.5	376,125		0.0000	1.0000	90.47
31.5	384,419		0.0000	1.0000	90.47
32.5	384,419		0.0000	1.0000	90.47
33.5	384,419		0.0000	1.0000	90.47
34.5	384,419		0.0000	1.0000	90.47
35.5	384,419		0.0000	1.0000	90.47
36.5	384,419		0.0000	1.0000	90.47
37.5	384,419		0.0000	1.0000	90.47
38.5	384,419		0.0000	1.0000	90.47

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 318.30 AND 318.50 RESIDUAL REFINING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1913-1957			EXPERIENCE BAND 1955-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	384,419		0.0000	1.0000	90.47
40.5	384,419		0.0000	1.0000	90.47
41.5	388,447		0.0000	1.0000	90.47
42.5	388,447		0.0000	1.0000	90.47
43.5	388,447		0.0000	1.0000	90.47
44.5	388,447		0.0000	1.0000	90.47
45.5	388,447		0.0000	1.0000	90.47
46.5	388,447		0.0000	1.0000	90.47
47.5	388,447		0.0000	1.0000	90.47
48.5	388,447		0.0000	1.0000	90.47
49.5	388,447		0.0000	1.0000	90.47
50.5	388,447		0.0000	1.0000	90.47
51.5	388,447		0.0000	1.0000	90.47
52.5	388,447		0.0000	1.0000	90.47
53.5	388,447		0.0000	1.0000	90.47
54.5	388,447		0.0000	1.0000	90.47
55.5	388,447		0.0000	1.0000	90.47
56.5	388,447		0.0000	1.0000	90.47
57.5	388,447		0.0000	1.0000	90.47
58.5	388,447		0.0000	1.0000	90.47
59.5	388,447		0.0000	1.0000	90.47
60.5	388,447		0.0000	1.0000	90.47
61.5	388,447		0.0000	1.0000	90.47
62.5	388,447		0.0000	1.0000	90.47
63.5	388,447		0.0000	1.0000	90.47
64.5	388,447		0.0000	1.0000	90.47
65.5	387,494		0.0000	1.0000	90.47
66.5	387,331		0.0000	1.0000	90.47
67.5	385,521		0.0000	1.0000	90.47
68.5	380,955		0.0000	1.0000	90.47
69.5	291,009		0.0000	1.0000	90.47
70.5	275,635		0.0000	1.0000	90.47
71.5	247,524		0.0000	1.0000	90.47
72.5	232,988		0.0000	1.0000	90.47
73.5	232,397		0.0000	1.0000	90.47
74.5	225,536		0.0000	1.0000	90.47
75.5	167,629		0.0000	1.0000	90.47
76.5	167,629		0.0000	1.0000	90.47
77.5	167,629		0.0000	1.0000	90.47
78.5	159,492		0.0000	1.0000	90.47

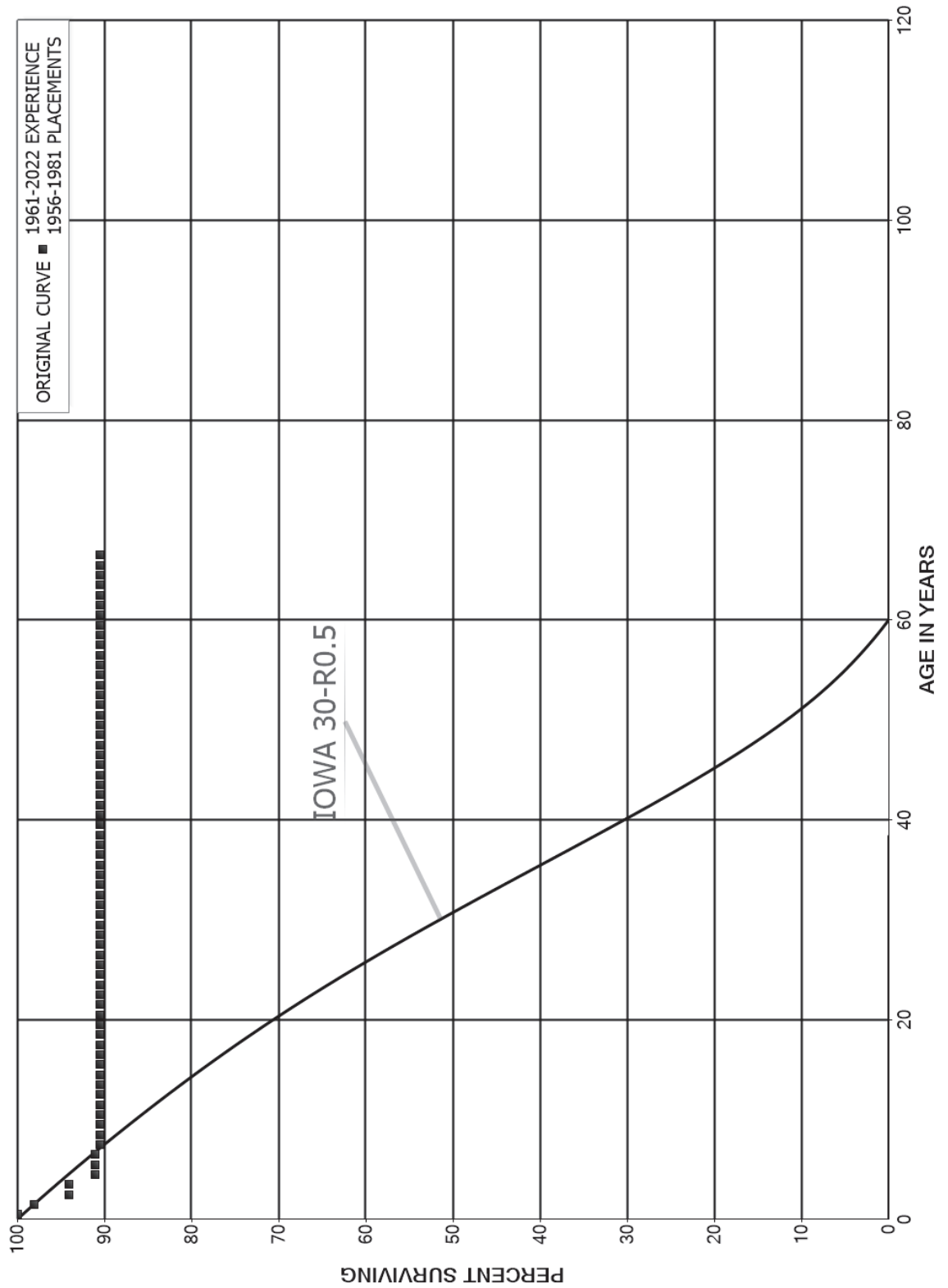
NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 318.30 AND 318.50 RESIDUAL REFINING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1913-1957			EXPERIENCE BAND 1955-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	107,883		0.0000	1.0000	90.47
80.5	107,883		0.0000	1.0000	90.47
81.5	42,601		0.0000	1.0000	90.47
82.5	19,062		0.0000	1.0000	90.47
83.5	19,062		0.0000	1.0000	90.47
84.5	19,062		0.0000	1.0000	90.47
85.5	19,062		0.0000	1.0000	90.47
86.5	19,062		0.0000	1.0000	90.47
87.5	19,062		0.0000	1.0000	90.47
88.5	19,062		0.0000	1.0000	90.47
89.5	19,062		0.0000	1.0000	90.47
90.5	19,062		0.0000	1.0000	90.47
91.5	19,062		0.0000	1.0000	90.47
92.5	19,062		0.0000	1.0000	90.47
93.5	19,062		0.0000	1.0000	90.47
94.5	19,062		0.0000	1.0000	90.47
95.5	19,062		0.0000	1.0000	90.47
96.5	12,322		0.0000	1.0000	90.47
97.5	12,322		0.0000	1.0000	90.47
98.5	12,322		0.0000	1.0000	90.47
99.5	4,028		0.0000	1.0000	90.47
100.5	4,028		0.0000	1.0000	90.47
101.5	4,028		0.0000	1.0000	90.47
102.5	4,028		0.0000	1.0000	90.47
103.5	4,028		0.0000	1.0000	90.47
104.5	4,028		0.0000	1.0000	90.47
105.5	4,028		0.0000	1.0000	90.47
106.5	4,028		0.0000	1.0000	90.47
107.5	4,028		0.0000	1.0000	90.47
108.5	4,028		0.0000	1.0000	90.47
109.5					90.47

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 319.00 GAS MIXING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





NORTHWEST NATURAL GAS COMPANY

ACCOUNT 319.00 GAS MIXING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1956-1981

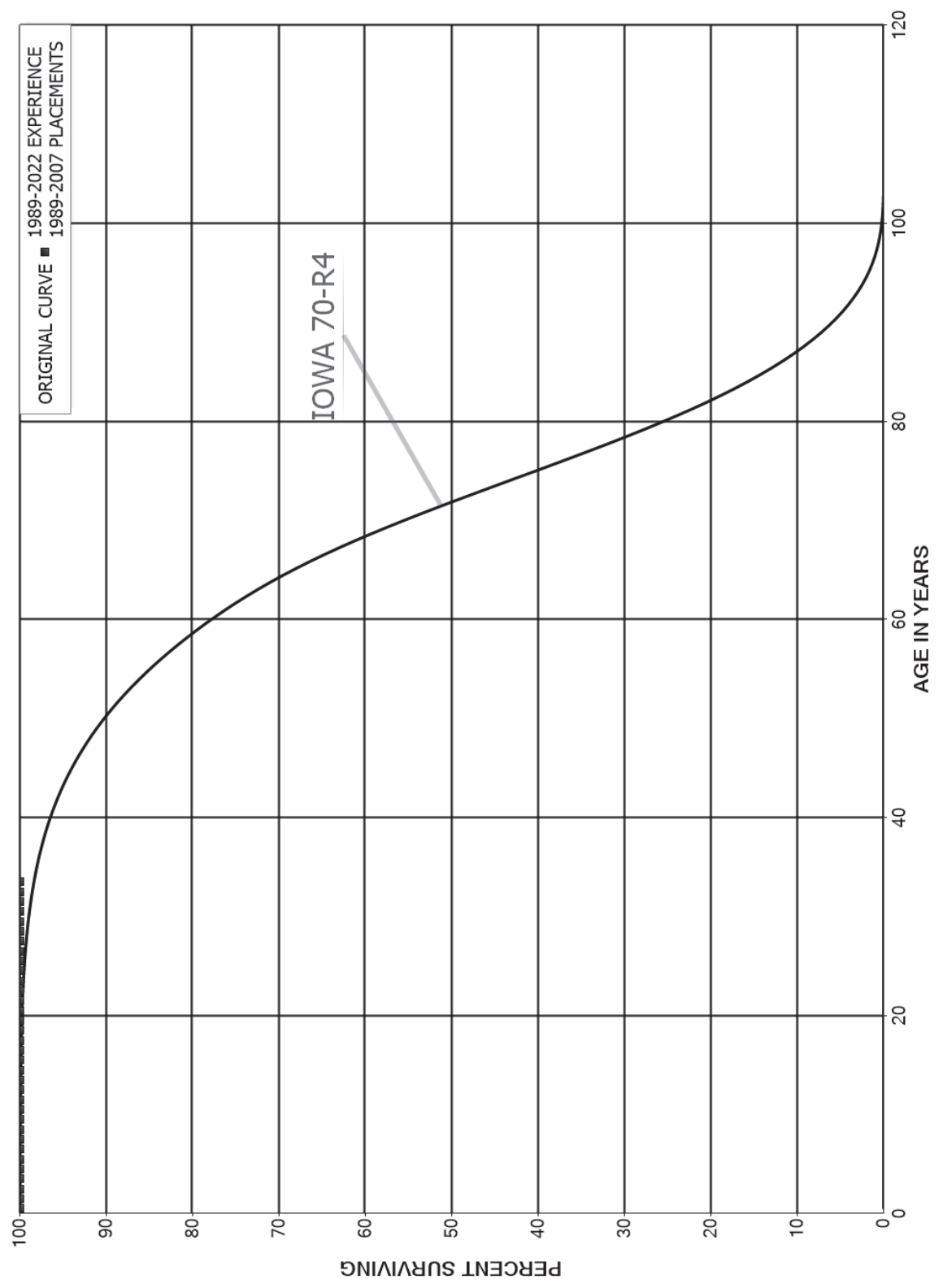
EXPERIENCE BAND 1961-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	18,655		0.0000	1.0000	100.00
0.5	18,932	376	0.0199	0.9801	100.00
1.5	19,149	770	0.0402	0.9598	98.01
2.5	24,885		0.0000	1.0000	94.07
3.5	40,405	1,300	0.0322	0.9678	94.07
4.5	185,448		0.0000	1.0000	91.05
5.5	185,448		0.0000	1.0000	91.05
6.5	185,448	1,025	0.0055	0.9945	91.05
7.5	185,448		0.0000	1.0000	90.54
8.5	185,448		0.0000	1.0000	90.54
9.5	185,448		0.0000	1.0000	90.54
10.5	185,448		0.0000	1.0000	90.54
11.5	185,448		0.0000	1.0000	90.54
12.5	185,448		0.0000	1.0000	90.54
13.5	185,448		0.0000	1.0000	90.54
14.5	185,448		0.0000	1.0000	90.54
15.5	185,448		0.0000	1.0000	90.54
16.5	185,448		0.0000	1.0000	90.54
17.5	185,448		0.0000	1.0000	90.54
18.5	185,448		0.0000	1.0000	90.54
19.5	185,448		0.0000	1.0000	90.54
20.5	185,448		0.0000	1.0000	90.54
21.5	185,448		0.0000	1.0000	90.54
22.5	185,448		0.0000	1.0000	90.54
23.5	185,448		0.0000	1.0000	90.54
24.5	185,448		0.0000	1.0000	90.54
25.5	185,448		0.0000	1.0000	90.54
26.5	185,448		0.0000	1.0000	90.54
27.5	185,448		0.0000	1.0000	90.54
28.5	185,448		0.0000	1.0000	90.54
29.5	185,448		0.0000	1.0000	90.54
30.5	185,448		0.0000	1.0000	90.54
31.5	185,448		0.0000	1.0000	90.54
32.5	185,448		0.0000	1.0000	90.54
33.5	185,448		0.0000	1.0000	90.54
34.5	185,448		0.0000	1.0000	90.54
35.5	185,448		0.0000	1.0000	90.54
36.5	185,448		0.0000	1.0000	90.54
37.5	185,448		0.0000	1.0000	90.54
38.5	185,448		0.0000	1.0000	90.54

NORTHWEST NATURAL GAS COMPANY  
ACCOUNT 319.00 GAS MIXING EQUIPMENT  
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1956-1981			EXPERIENCE BAND 1961-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	185,448		0.0000	1.0000	90.54
40.5	185,448		0.0000	1.0000	90.54
41.5	181,891		0.0000	1.0000	90.54
42.5	169,470		0.0000	1.0000	90.54
43.5	169,470		0.0000	1.0000	90.54
44.5	169,470		0.0000	1.0000	90.54
45.5	169,470		0.0000	1.0000	90.54
46.5	169,470		0.0000	1.0000	90.54
47.5	169,470		0.0000	1.0000	90.54
48.5	169,470		0.0000	1.0000	90.54
49.5	169,470		0.0000	1.0000	90.54
50.5	169,470		0.0000	1.0000	90.54
51.5	169,470		0.0000	1.0000	90.54
52.5	169,470		0.0000	1.0000	90.54
53.5	169,470		0.0000	1.0000	90.54
54.5	169,470		0.0000	1.0000	90.54
55.5	169,381		0.0000	1.0000	90.54
56.5	169,381		0.0000	1.0000	90.54
57.5	169,381		0.0000	1.0000	90.54
58.5	168,460		0.0000	1.0000	90.54
59.5	168,460		0.0000	1.0000	90.54
60.5	166,793		0.0000	1.0000	90.54
61.5	166,793		0.0000	1.0000	90.54
62.5	166,516		0.0000	1.0000	90.54
63.5	166,299		0.0000	1.0000	90.54
64.5	160,563		0.0000	1.0000	90.54
65.5	145,043		0.0000	1.0000	90.54
66.5					90.54

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 350.20 LAND RIGHTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 350.20 LAND RIGHTS

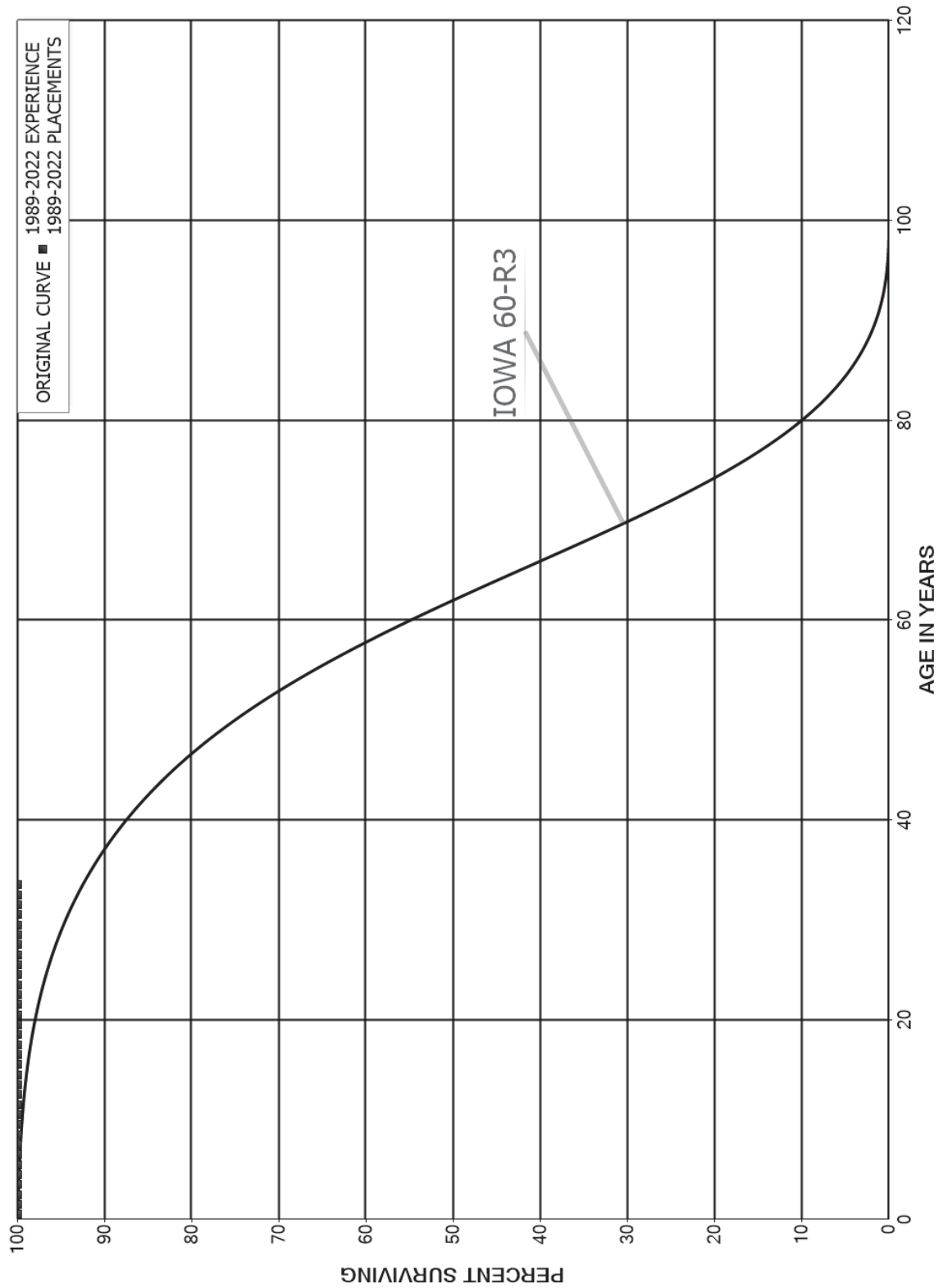
ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2007

EXPERIENCE BAND 1989-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	109,625		0.0000	1.0000	100.00
0.5	109,625		0.0000	1.0000	100.00
1.5	109,625		0.0000	1.0000	100.00
2.5	109,625		0.0000	1.0000	100.00
3.5	109,625		0.0000	1.0000	100.00
4.5	109,625		0.0000	1.0000	100.00
5.5	109,625		0.0000	1.0000	100.00
6.5	109,625		0.0000	1.0000	100.00
7.5	109,625		0.0000	1.0000	100.00
8.5	109,625		0.0000	1.0000	100.00
9.5	109,625		0.0000	1.0000	100.00
10.5	109,625		0.0000	1.0000	100.00
11.5	109,625		0.0000	1.0000	100.00
12.5	109,625		0.0000	1.0000	100.00
13.5	109,625		0.0000	1.0000	100.00
14.5	109,625		0.0000	1.0000	100.00
15.5	51,122		0.0000	1.0000	100.00
16.5	51,122		0.0000	1.0000	100.00
17.5	51,122		0.0000	1.0000	100.00
18.5	51,122		0.0000	1.0000	100.00
19.5	51,122		0.0000	1.0000	100.00
20.5	51,122		0.0000	1.0000	100.00
21.5	47,318		0.0000	1.0000	100.00
22.5	47,318		0.0000	1.0000	100.00
23.5	47,318		0.0000	1.0000	100.00
24.5	46,690		0.0000	1.0000	100.00
25.5	46,505		0.0000	1.0000	100.00
26.5	46,505		0.0000	1.0000	100.00
27.5	46,505		0.0000	1.0000	100.00
28.5	46,105		0.0000	1.0000	100.00
29.5	40,841		0.0000	1.0000	100.00
30.5	40,841		0.0000	1.0000	100.00
31.5	40,841		0.0000	1.0000	100.00
32.5	40,841		0.0000	1.0000	100.00
33.5					100.00

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 351.00 STRUCTURES AND IMPROVEMENTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 351.00 STRUCTURES AND IMPROVEMENTS

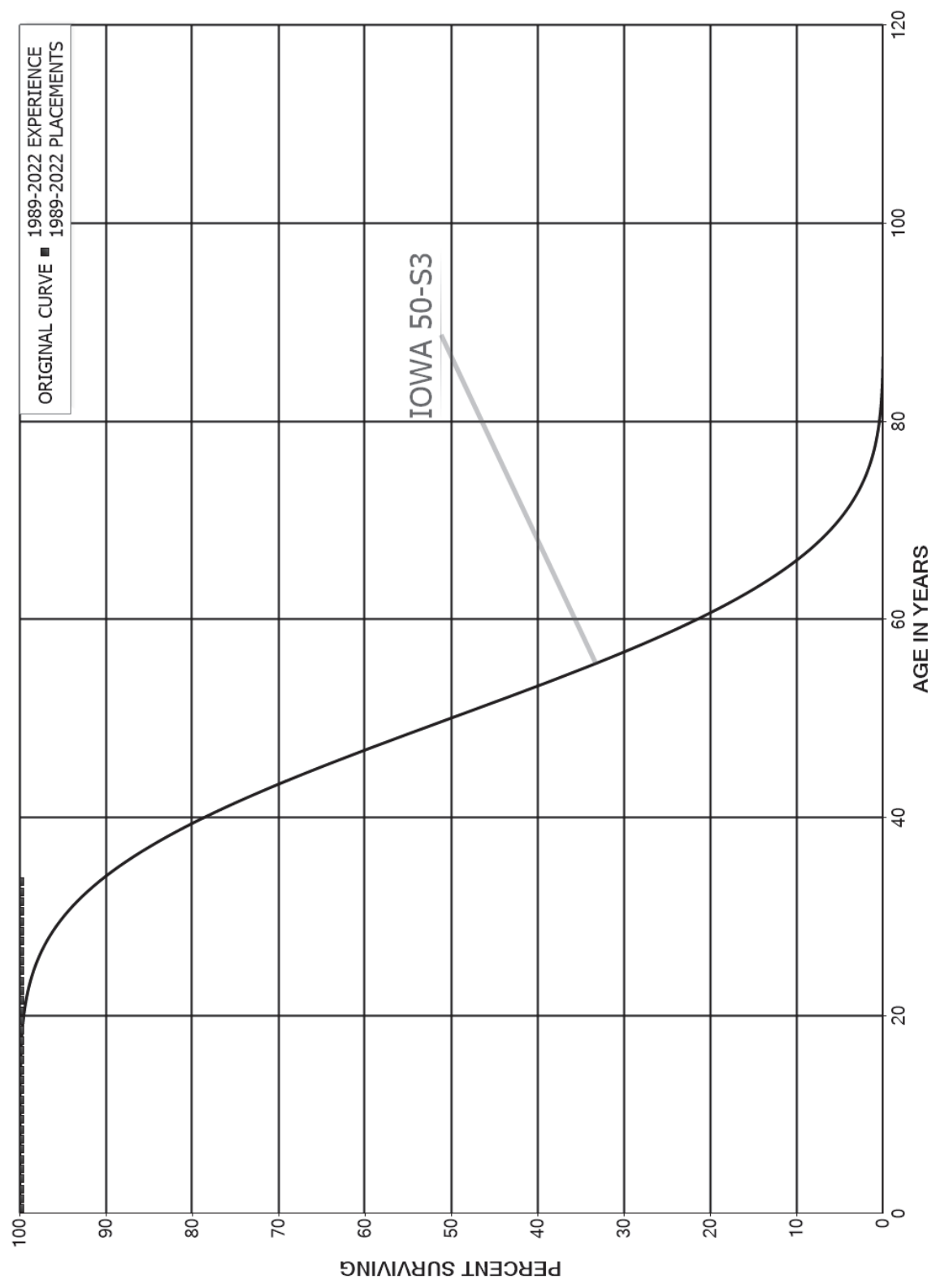
ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2022

EXPERIENCE BAND 1989-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	9,167,746		0.0000	1.0000	100.00
0.5	8,935,718		0.0000	1.0000	100.00
1.5	8,634,151		0.0000	1.0000	100.00
2.5	8,634,151		0.0000	1.0000	100.00
3.5	8,634,151		0.0000	1.0000	100.00
4.5	7,382,069		0.0000	1.0000	100.00
5.5	7,208,245		0.0000	1.0000	100.00
6.5	7,208,245		0.0000	1.0000	100.00
7.5	7,141,840		0.0000	1.0000	100.00
8.5	6,715,064		0.0000	1.0000	100.00
9.5	6,715,064		0.0000	1.0000	100.00
10.5	6,555,425		0.0000	1.0000	100.00
11.5	6,555,425		0.0000	1.0000	100.00
12.5	6,542,426		0.0000	1.0000	100.00
13.5	6,538,592		0.0000	1.0000	100.00
14.5	6,247,670		0.0000	1.0000	100.00
15.5	6,247,670		0.0000	1.0000	100.00
16.5	6,247,670		0.0000	1.0000	100.00
17.5	6,247,546		0.0000	1.0000	100.00
18.5	6,173,312		0.0000	1.0000	100.00
19.5	6,156,413		0.0000	1.0000	100.00
20.5	5,913,514		0.0000	1.0000	100.00
21.5	5,029,273		0.0000	1.0000	100.00
22.5	4,996,462		0.0000	1.0000	100.00
23.5	4,991,499		0.0000	1.0000	100.00
24.5	2,516,340		0.0000	1.0000	100.00
25.5	2,516,340		0.0000	1.0000	100.00
26.5	2,516,340		0.0000	1.0000	100.00
27.5	2,480,692		0.0000	1.0000	100.00
28.5	2,467,430		0.0000	1.0000	100.00
29.5	2,464,204		0.0000	1.0000	100.00
30.5	2,422,299		0.0000	1.0000	100.00
31.5	2,146,801		0.0000	1.0000	100.00
32.5	2,101,010		0.0000	1.0000	100.00
33.5					100.00

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 352.00 WELLS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.00 WELLS

ORIGINAL LIFE TABLE

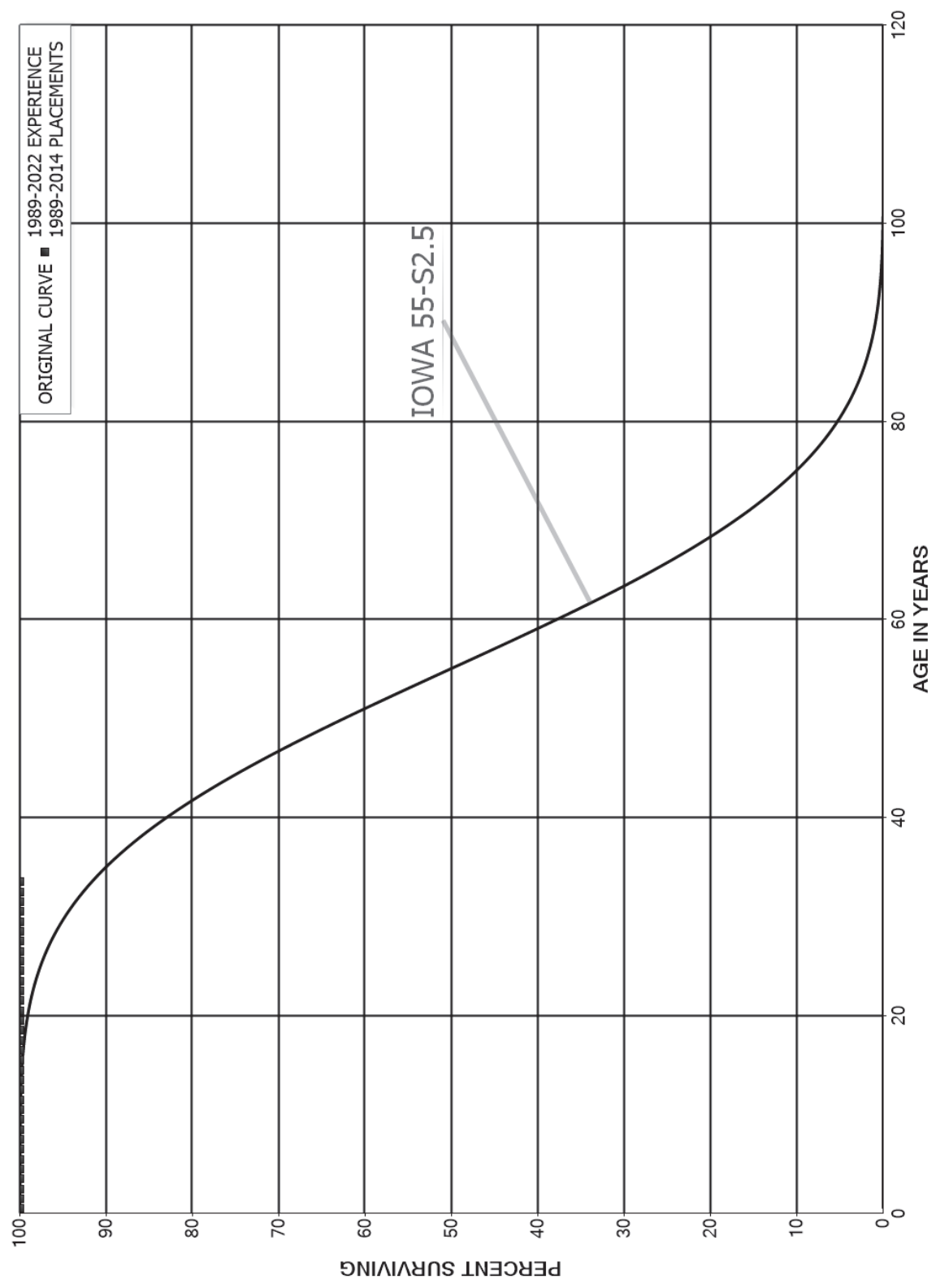
PLACEMENT BAND 1989-2022

EXPERIENCE BAND 1989-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	59,428,554		0.0000	1.0000	100.00
0.5	52,423,569		0.0000	1.0000	100.00
1.5	48,256,749		0.0000	1.0000	100.00
2.5	43,804,325		0.0000	1.0000	100.00
3.5	40,316,037		0.0000	1.0000	100.00
4.5	36,987,527		0.0000	1.0000	100.00
5.5	36,987,527		0.0000	1.0000	100.00
6.5	36,987,527		0.0000	1.0000	100.00
7.5	36,987,527		0.0000	1.0000	100.00
8.5	36,987,527		0.0000	1.0000	100.00
9.5	36,987,527		0.0000	1.0000	100.00
10.5	36,970,027		0.0000	1.0000	100.00
11.5	36,970,027		0.0000	1.0000	100.00
12.5	36,970,027		0.0000	1.0000	100.00
13.5	36,138,659		0.0000	1.0000	100.00
14.5	36,138,659		0.0000	1.0000	100.00
15.5	27,363,189		0.0000	1.0000	100.00
16.5	27,363,189		0.0000	1.0000	100.00
17.5	23,510,122		0.0000	1.0000	100.00
18.5	18,383,091		0.0000	1.0000	100.00
19.5	18,338,288		0.0000	1.0000	100.00
20.5	18,338,288		0.0000	1.0000	100.00
21.5	18,138,203		0.0000	1.0000	100.00
22.5	18,138,203		0.0000	1.0000	100.00
23.5	18,138,203		0.0000	1.0000	100.00
24.5	11,810,679		0.0000	1.0000	100.00
25.5	11,810,679		0.0000	1.0000	100.00
26.5	11,810,679		0.0000	1.0000	100.00
27.5	11,810,679		0.0000	1.0000	100.00
28.5	11,808,321		0.0000	1.0000	100.00
29.5	11,625,429		0.0000	1.0000	100.00
30.5	11,474,852		0.0000	1.0000	100.00
31.5	9,469,844		0.0000	1.0000	100.00
32.5	8,933,762		0.0000	1.0000	100.00
33.5					100.00



NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 352.10 STORAGE LEASEHOLDS AND RIGHTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.10 STORAGE LEASEHOLDS AND RIGHTS

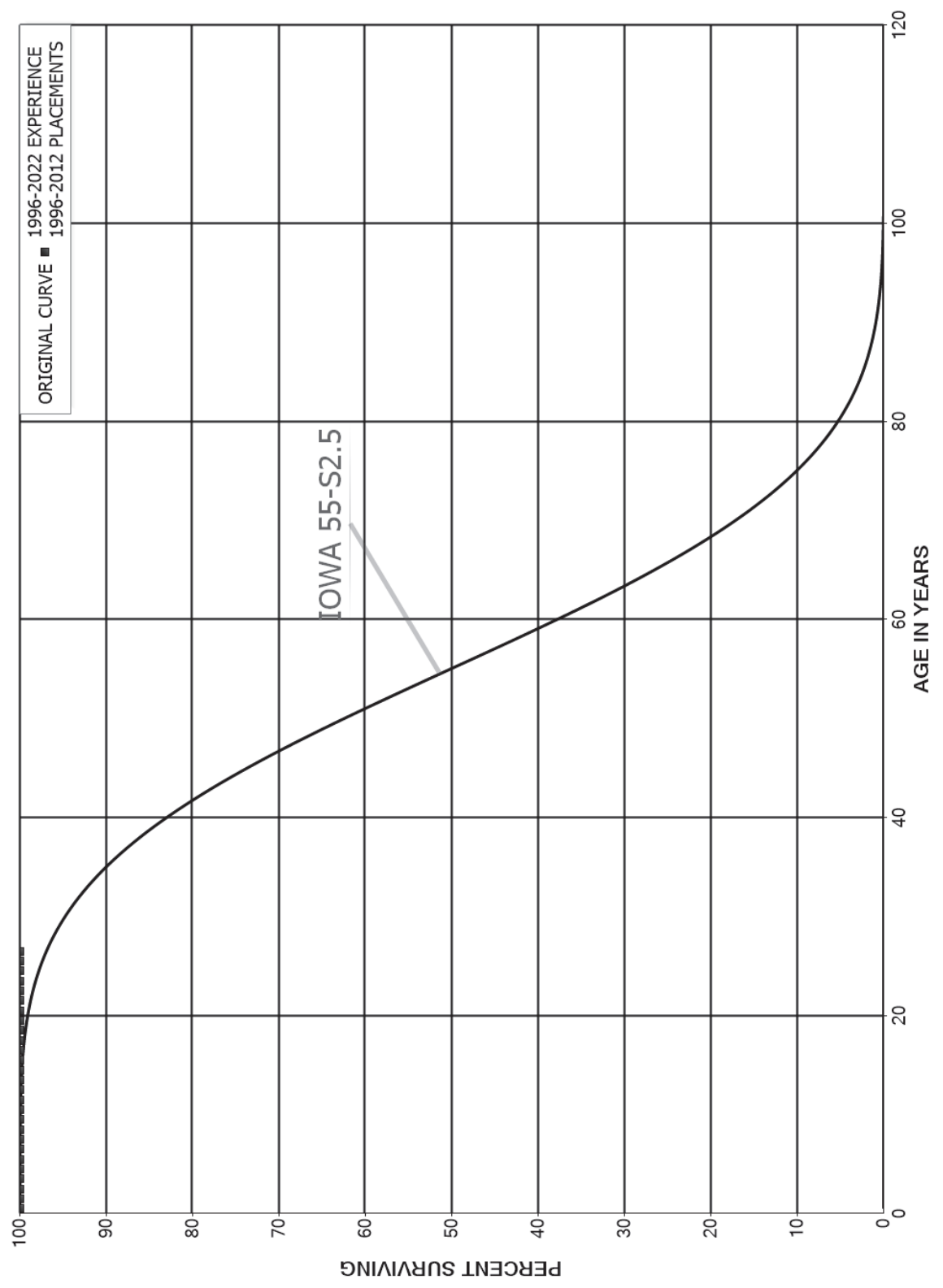
ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2014

EXPERIENCE BAND 1989-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,939,513		0.0000	1.0000	100.00
0.5	3,939,512		0.0000	1.0000	100.00
1.5	3,939,512		0.0000	1.0000	100.00
2.5	3,939,512		0.0000	1.0000	100.00
3.5	3,939,512		0.0000	1.0000	100.00
4.5	3,939,512		0.0000	1.0000	100.00
5.5	3,939,512		0.0000	1.0000	100.00
6.5	3,939,512		0.0000	1.0000	100.00
7.5	3,939,512		0.0000	1.0000	100.00
8.5	3,539,512		0.0000	1.0000	100.00
9.5	3,539,512		0.0000	1.0000	100.00
10.5	3,539,512		0.0000	1.0000	100.00
11.5	3,539,512		0.0000	1.0000	100.00
12.5	3,539,512		0.0000	1.0000	100.00
13.5	3,539,512		0.0000	1.0000	100.00
14.5	3,539,512		0.0000	1.0000	100.00
15.5	3,539,512		0.0000	1.0000	100.00
16.5	3,539,512		0.0000	1.0000	100.00
17.5	3,539,512		0.0000	1.0000	100.00
18.5	3,538,491		0.0000	1.0000	100.00
19.5	3,538,491		0.0000	1.0000	100.00
20.5	3,535,500		0.0000	1.0000	100.00
21.5	3,535,500		0.0000	1.0000	100.00
22.5	3,535,500		0.0000	1.0000	100.00
23.5	3,530,407		0.0000	1.0000	100.00
24.5	3,038,080		0.0000	1.0000	100.00
25.5	1,448,101		0.0000	1.0000	100.00
26.5	1,210,801		0.0000	1.0000	100.00
27.5	1,210,801		0.0000	1.0000	100.00
28.5	1,210,801		0.0000	1.0000	100.00
29.5	1,210,800		0.0000	1.0000	100.00
30.5	1,210,800		0.0000	1.0000	100.00
31.5	1,210,800		0.0000	1.0000	100.00
32.5	1,210,800		0.0000	1.0000	100.00
33.5					100.00

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 352.20 RESERVOIRS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.20 RESERVOIRS

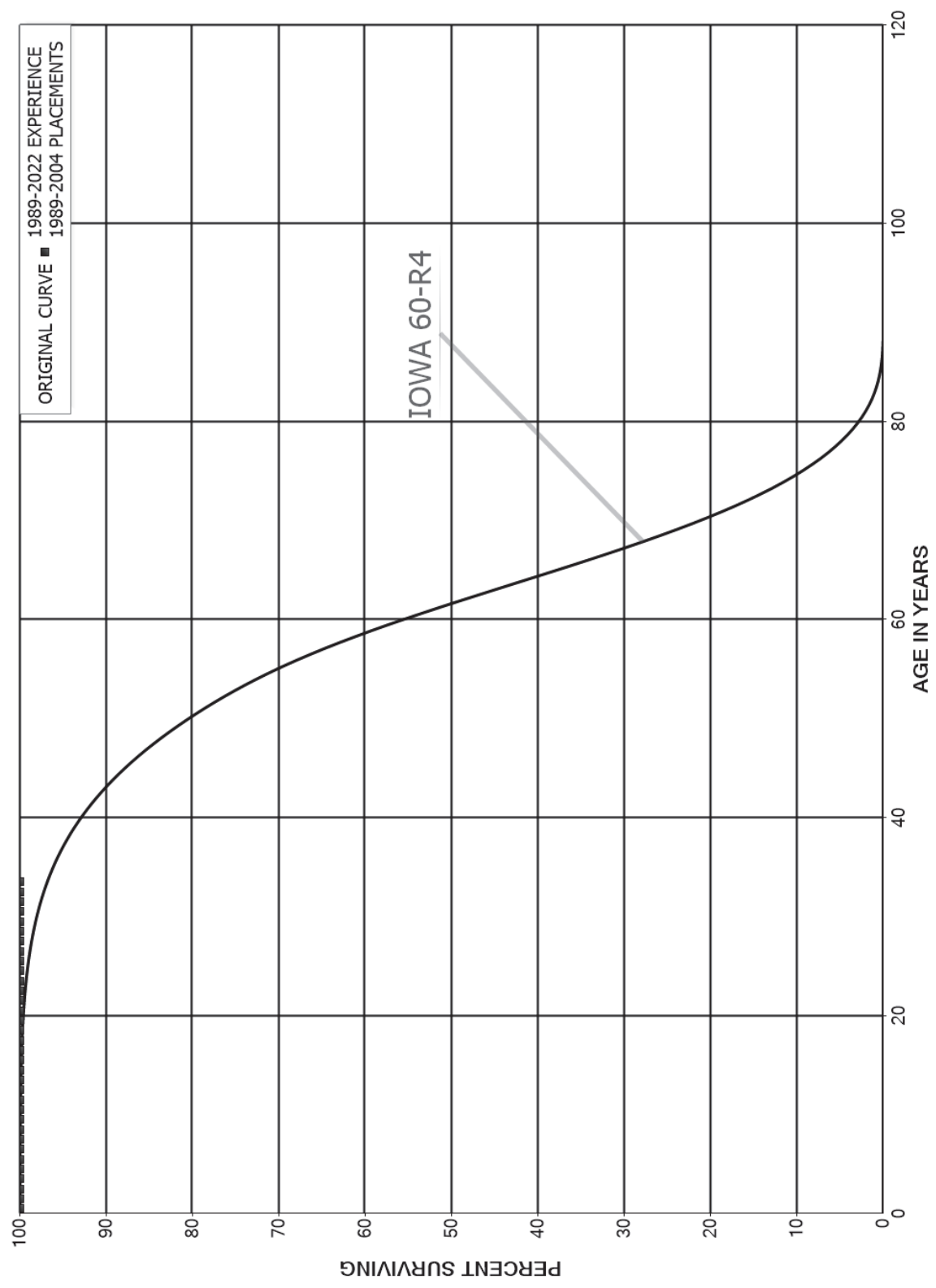
ORIGINAL LIFE TABLE

PLACEMENT BAND 1996-2012

EXPERIENCE BAND 1996-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	7,303,798		0.0000	1.0000	100.00
0.5	7,303,798		0.0000	1.0000	100.00
1.5	7,303,798		0.0000	1.0000	100.00
2.5	9,211,060		0.0000	1.0000	100.00
3.5	9,211,060		0.0000	1.0000	100.00
4.5	10,834,055		0.0000	1.0000	100.00
5.5	10,834,055		0.0000	1.0000	100.00
6.5	10,834,055		0.0000	1.0000	100.00
7.5	10,834,055		0.0000	1.0000	100.00
8.5	10,834,055		0.0000	1.0000	100.00
9.5	10,834,055		0.0000	1.0000	100.00
10.5	10,816,555		0.0000	1.0000	100.00
11.5	10,816,555		0.0000	1.0000	100.00
12.5	10,816,555		0.0000	1.0000	100.00
13.5	11,963,401		0.0000	1.0000	100.00
14.5	11,963,401		0.0000	1.0000	100.00
15.5	10,816,555		0.0000	1.0000	100.00
16.5	10,816,555		0.0000	1.0000	100.00
17.5	8,371,537		0.0000	1.0000	100.00
18.5	7,159,166		0.0000	1.0000	100.00
19.5	7,159,166		0.0000	1.0000	100.00
20.5	4,161,435		0.0000	1.0000	100.00
21.5	4,161,435		0.0000	1.0000	100.00
22.5	3,685,094		0.0000	1.0000	100.00
23.5	3,679,091		0.0000	1.0000	100.00
24.5	1,679,184		0.0000	1.0000	100.00
25.5	1,679,184		0.0000	1.0000	100.00
26.5					100.00

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 352.30 NONRECOVERABLE GAS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.30 NONRECOVERABLE GAS

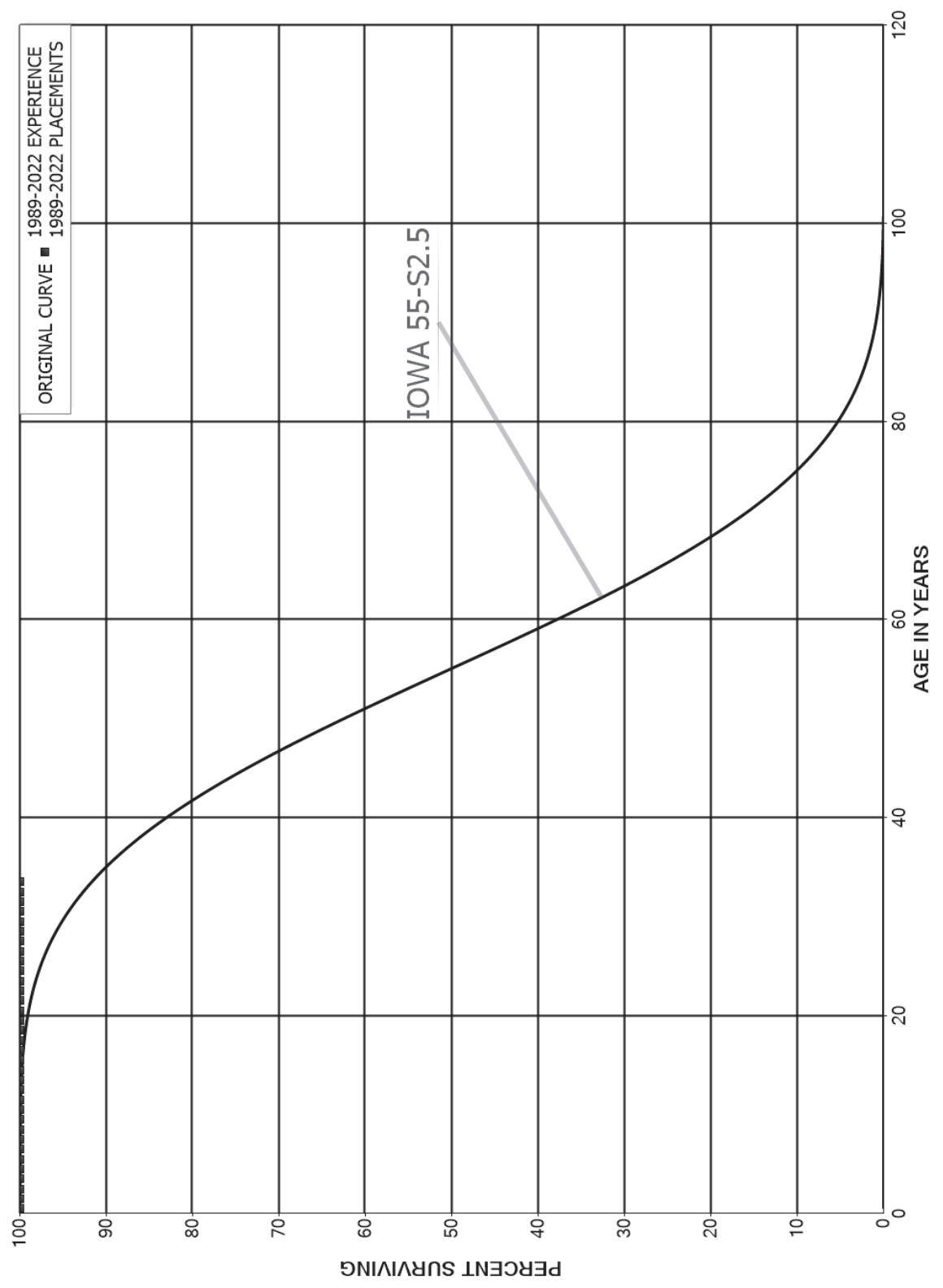
ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2004

EXPERIENCE BAND 1989-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	6,440,891		0.0000	1.0000	100.00
0.5	6,440,890		0.0000	1.0000	100.00
1.5	6,440,890		0.0000	1.0000	100.00
2.5	6,440,890		0.0000	1.0000	100.00
3.5	6,440,890		0.0000	1.0000	100.00
4.5	6,440,890		0.0000	1.0000	100.00
5.5	6,440,890		0.0000	1.0000	100.00
6.5	6,440,890		0.0000	1.0000	100.00
7.5	6,440,890		0.0000	1.0000	100.00
8.5	6,440,890		0.0000	1.0000	100.00
9.5	6,440,890		0.0000	1.0000	100.00
10.5	6,440,890		0.0000	1.0000	100.00
11.5	6,440,890		0.0000	1.0000	100.00
12.5	6,440,890		0.0000	1.0000	100.00
13.5	6,440,890		0.0000	1.0000	100.00
14.5	6,440,890		0.0000	1.0000	100.00
15.5	6,440,890		0.0000	1.0000	100.00
16.5	6,440,890		0.0000	1.0000	100.00
17.5	6,440,890		0.0000	1.0000	100.00
18.5	6,375,402		0.0000	1.0000	100.00
19.5	6,375,402		0.0000	1.0000	100.00
20.5	6,375,402		0.0000	1.0000	100.00
21.5	6,375,402		0.0000	1.0000	100.00
22.5	6,375,402		0.0000	1.0000	100.00
23.5	6,375,402		0.0000	1.0000	100.00
24.5	6,312,953		0.0000	1.0000	100.00
25.5	6,312,953		0.0000	1.0000	100.00
26.5	4,057,953		0.0000	1.0000	100.00
27.5	4,057,953		0.0000	1.0000	100.00
28.5	4,057,953		0.0000	1.0000	100.00
29.5	4,057,952		0.0000	1.0000	100.00
30.5	4,057,952		0.0000	1.0000	100.00
31.5	4,057,952		0.0000	1.0000	100.00
32.5	4,057,952		0.0000	1.0000	100.00
33.5					100.00

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 353.00 LINES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 353.00 LINES

ORIGINAL LIFE TABLE

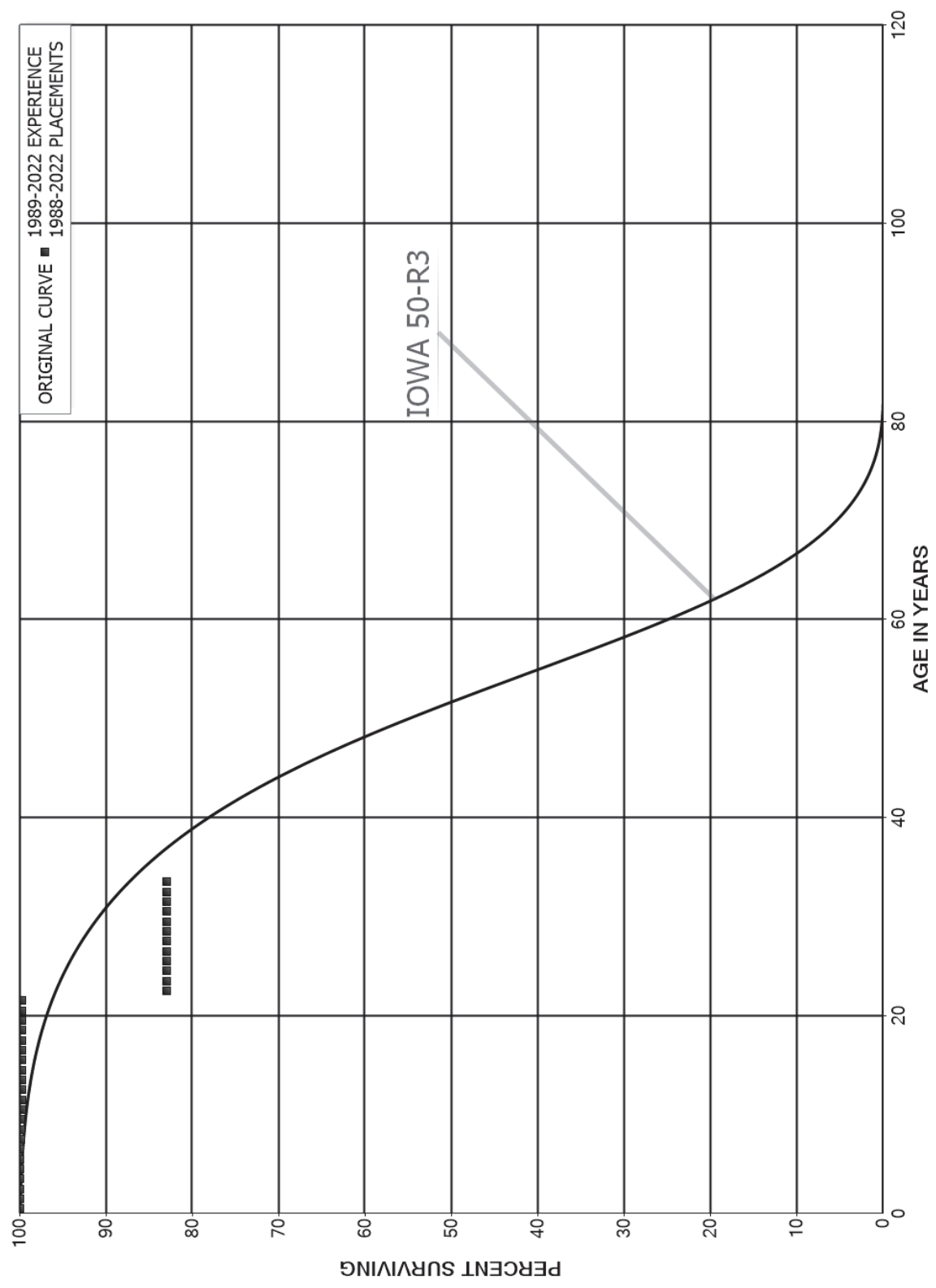
PLACEMENT BAND 1989-2022

EXPERIENCE BAND 1989-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	12,167,087		0.0000	1.0000	100.00
0.5	10,822,416		0.0000	1.0000	100.00
1.5	10,790,148		0.0000	1.0000	100.00
2.5	10,673,228		0.0000	1.0000	100.00
3.5	9,535,478		0.0000	1.0000	100.00
4.5	8,201,964		0.0000	1.0000	100.00
5.5	8,201,964		0.0000	1.0000	100.00
6.5	8,201,964		0.0000	1.0000	100.00
7.5	8,201,964		0.0000	1.0000	100.00
8.5	8,201,964		0.0000	1.0000	100.00
9.5	8,201,964		0.0000	1.0000	100.00
10.5	8,201,964		0.0000	1.0000	100.00
11.5	8,201,964		0.0000	1.0000	100.00
12.5	8,201,964		0.0000	1.0000	100.00
13.5	8,201,964		0.0000	1.0000	100.00
14.5	8,201,964		0.0000	1.0000	100.00
15.5	7,641,810		0.0000	1.0000	100.00
16.5	7,641,810		0.0000	1.0000	100.00
17.5	7,137,450		0.0000	1.0000	100.00
18.5	6,453,175		0.0000	1.0000	100.00
19.5	6,445,334		0.0000	1.0000	100.00
20.5	6,445,334		0.0000	1.0000	100.00
21.5	6,445,334		0.0000	1.0000	100.00
22.5	6,445,334		0.0000	1.0000	100.00
23.5	6,392,472		0.0000	1.0000	100.00
24.5	2,538,843		0.0000	1.0000	100.00
25.5	2,538,843		0.0000	1.0000	100.00
26.5	2,538,843		0.0000	1.0000	100.00
27.5	2,538,843		0.0000	1.0000	100.00
28.5	2,538,843		0.0000	1.0000	100.00
29.5	2,538,842		0.0000	1.0000	100.00
30.5	2,538,842		0.0000	1.0000	100.00
31.5	2,521,353		0.0000	1.0000	100.00
32.5	2,521,353		0.0000	1.0000	100.00
33.5					100.00



NORTHWEST NATURAL GAS COMPANY  
 ACCOUNTS 354.10 THROUGH 354.60 COMPRESSOR STATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 354.10 THROUGH 354.60 COMPRESSOR STATION EQUIPMENT

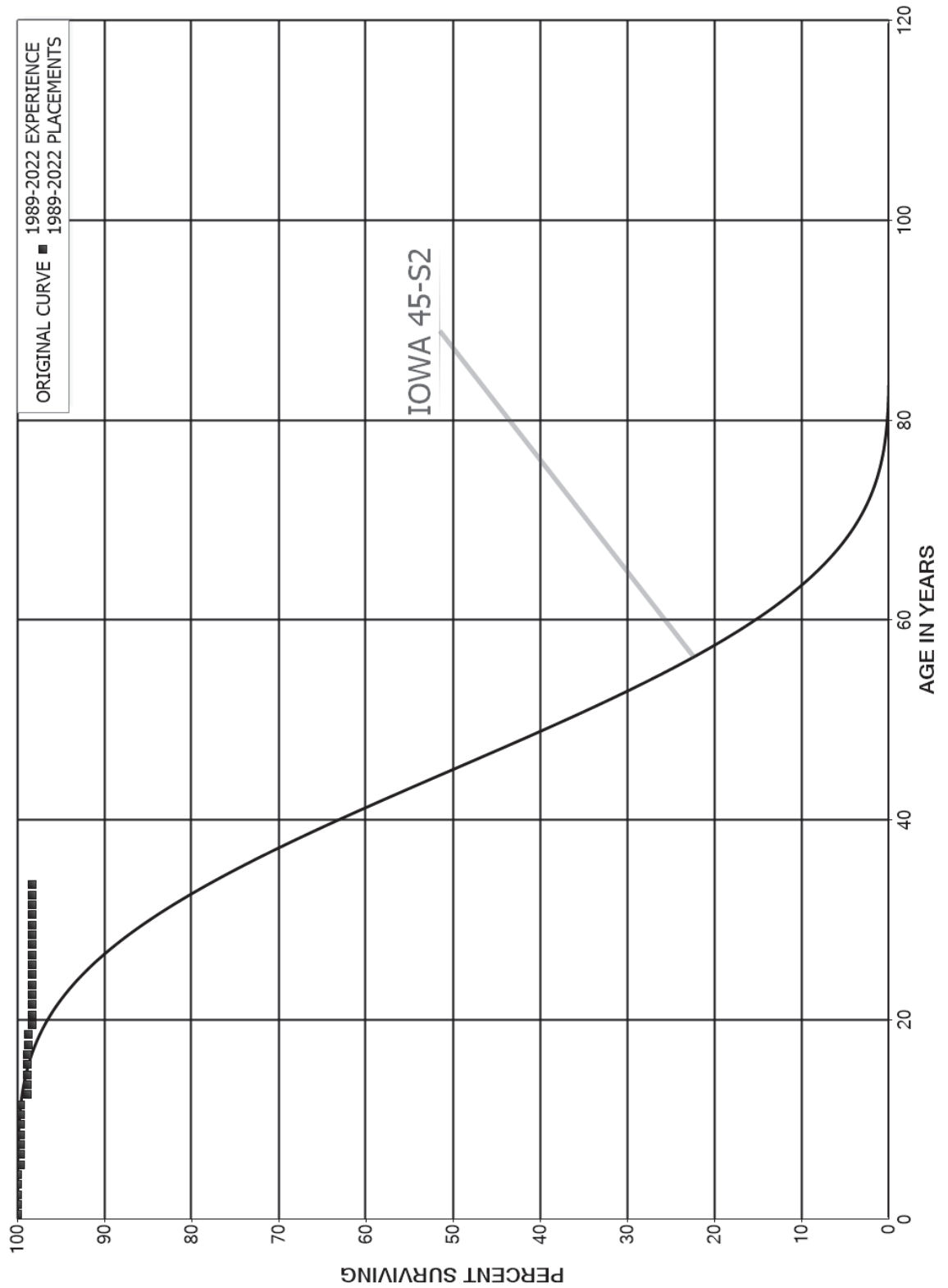
ORIGINAL LIFE TABLE

PLACEMENT BAND 1988-2022

EXPERIENCE BAND 1989-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	38,937,797		0.0000	1.0000	100.00
0.5	36,057,854		0.0000	1.0000	100.00
1.5	36,863,881	31,012	0.0008	0.9992	100.00
2.5	35,120,846		0.0000	1.0000	99.92
3.5	43,376,637		0.0000	1.0000	99.92
4.5	45,967,130		0.0000	1.0000	99.92
5.5	45,822,356		0.0000	1.0000	99.92
6.5	45,776,479	51,212	0.0011	0.9989	99.92
7.5	45,465,090		0.0000	1.0000	99.80
8.5	44,683,528		0.0000	1.0000	99.80
9.5	43,916,201	23,443	0.0005	0.9995	99.80
10.5	43,875,258		0.0000	1.0000	99.75
11.5	42,737,646		0.0000	1.0000	99.75
12.5	42,700,357		0.0000	1.0000	99.75
13.5	42,622,975		0.0000	1.0000	99.75
14.5	41,766,032		0.0000	1.0000	99.75
15.5	41,251,651		0.0000	1.0000	99.75
16.5	41,251,651		0.0000	1.0000	99.75
17.5	41,246,901		0.0000	1.0000	99.75
18.5	39,069,867		0.0000	1.0000	99.75
19.5	39,065,888		0.0000	1.0000	99.75
20.5	38,943,483		0.0000	1.0000	99.75
21.5	29,681,689	5,000,000	0.1685	0.8315	99.75
22.5	16,906,902		0.0000	1.0000	82.95
23.5	16,812,180		0.0000	1.0000	82.95
24.5	8,143,343		0.0000	1.0000	82.95
25.5	8,124,254		0.0000	1.0000	82.95
26.5	8,121,118		0.0000	1.0000	82.95
27.5	8,004,748		0.0000	1.0000	82.95
28.5	7,997,100		0.0000	1.0000	82.95
29.5	7,993,959		0.0000	1.0000	82.95
30.5	7,952,213		0.0000	1.0000	82.95
31.5	7,813,027		0.0000	1.0000	82.95
32.5	7,702,081		0.0000	1.0000	82.95
33.5					82.95

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 355.00 MEASURING AND REGULATING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



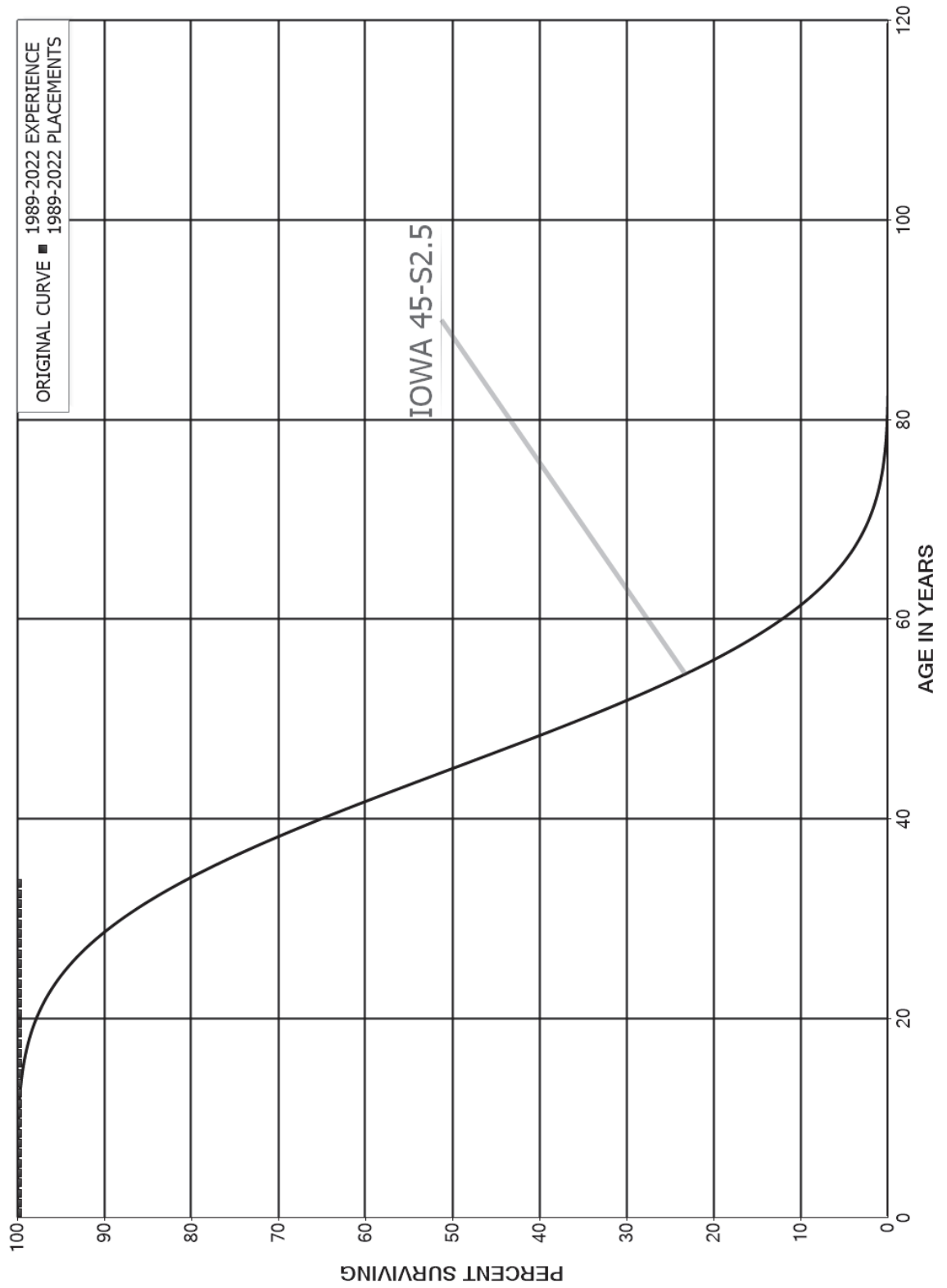
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 355.00 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2022			EXPERIENCE BAND 1989-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	37,721,066		0.0000	1.0000	100.00
0.5	27,546,415		0.0000	1.0000	100.00
1.5	17,883,613		0.0000	1.0000	100.00
2.5	16,304,356		0.0000	1.0000	100.00
3.5	16,621,758		0.0000	1.0000	100.00
4.5	16,956,436	58,779	0.0035	0.9965	100.00
5.5	16,292,883		0.0000	1.0000	99.65
6.5	16,168,075		0.0000	1.0000	99.65
7.5	16,158,003		0.0000	1.0000	99.65
8.5	16,158,003		0.0000	1.0000	99.65
9.5	16,086,849		0.0000	1.0000	99.65
10.5	16,069,349		0.0000	1.0000	99.65
11.5	15,633,832	122,683	0.0078	0.9922	99.65
12.5	15,511,149		0.0000	1.0000	98.87
13.5	14,469,437		0.0000	1.0000	98.87
14.5	13,868,686		0.0000	1.0000	98.87
15.5	9,699,149		0.0000	1.0000	98.87
16.5	9,556,019	15,249	0.0016	0.9984	98.87
17.5	7,749,151		0.0000	1.0000	98.71
18.5	6,918,523	32,310	0.0047	0.9953	98.71
19.5	6,886,213		0.0000	1.0000	98.25
20.5	6,688,016		0.0000	1.0000	98.25
21.5	6,639,166		0.0000	1.0000	98.25
22.5	4,935,004		0.0000	1.0000	98.25
23.5	4,696,363		0.0000	1.0000	98.25
24.5	3,606,243		0.0000	1.0000	98.25
25.5	3,606,243		0.0000	1.0000	98.25
26.5	3,590,871		0.0000	1.0000	98.25
27.5	3,581,013		0.0000	1.0000	98.25
28.5	3,580,978		0.0000	1.0000	98.25
29.5	3,579,193		0.0000	1.0000	98.25
30.5	3,561,374		0.0000	1.0000	98.25
31.5	3,539,964		0.0000	1.0000	98.25
32.5	3,473,015		0.0000	1.0000	98.25
33.5					98.25

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 356.00 PURIFICATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 356.00 PURIFICATION EQUIPMENT

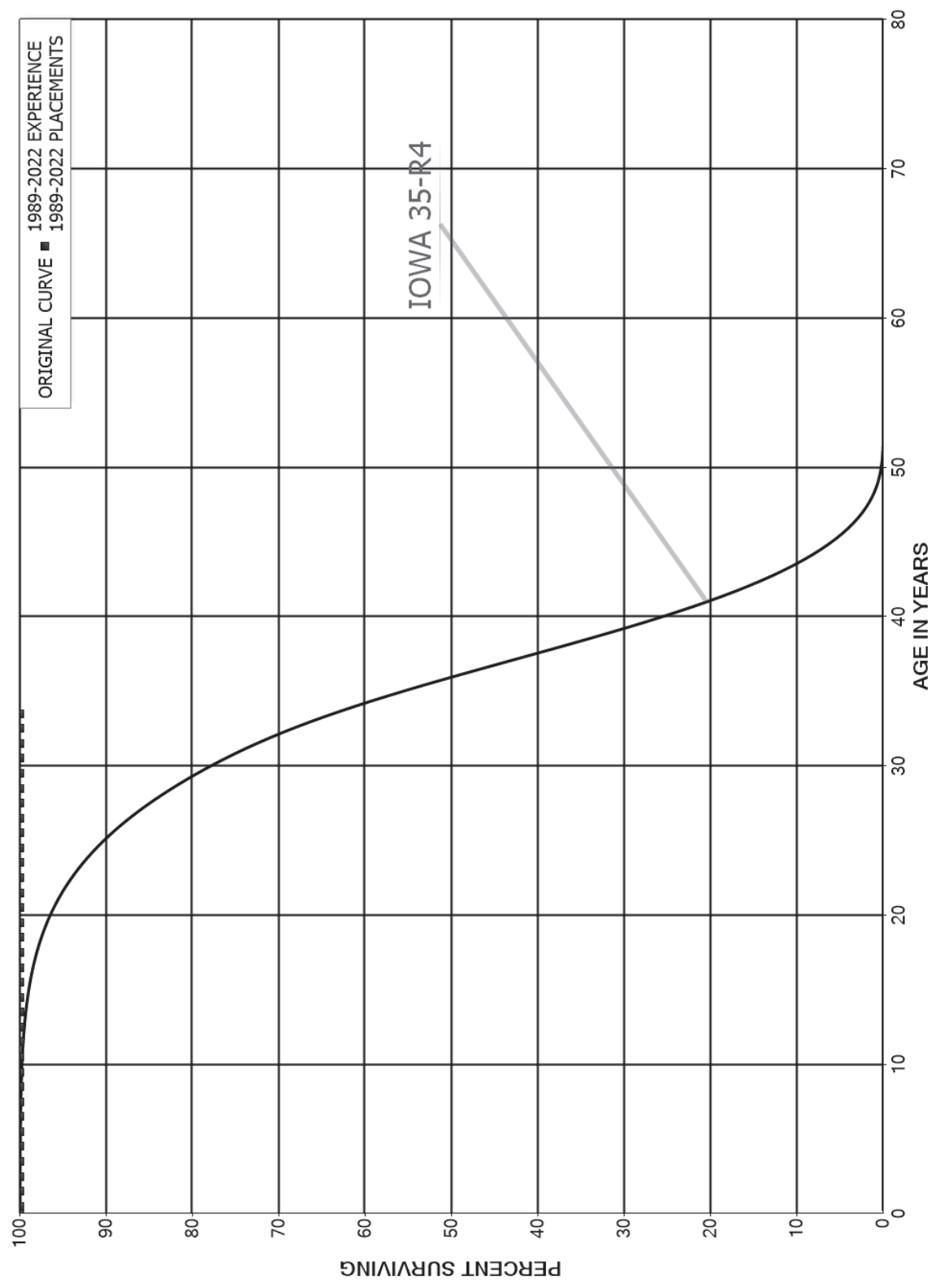
ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2022

EXPERIENCE BAND 1989-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	28,796,465		0.0000	1.0000	100.00
0.5	28,542,130		0.0000	1.0000	100.00
1.5	28,542,130		0.0000	1.0000	100.00
2.5	363,765		0.0000	1.0000	100.00
3.5	363,765		0.0000	1.0000	100.00
4.5	297,363		0.0000	1.0000	100.00
5.5	297,363		0.0000	1.0000	100.00
6.5	297,363		0.0000	1.0000	100.00
7.5	297,363		0.0000	1.0000	100.00
8.5	297,363		0.0000	1.0000	100.00
9.5	297,363		0.0000	1.0000	100.00
10.5	297,363		0.0000	1.0000	100.00
11.5	297,363		0.0000	1.0000	100.00
12.5	297,363		0.0000	1.0000	100.00
13.5	297,363		0.0000	1.0000	100.00
14.5	297,363		0.0000	1.0000	100.00
15.5	297,363		0.0000	1.0000	100.00
16.5	297,363		0.0000	1.0000	100.00
17.5	297,363		0.0000	1.0000	100.00
18.5	297,363		0.0000	1.0000	100.00
19.5	297,363		0.0000	1.0000	100.00
20.5	297,363		0.0000	1.0000	100.00
21.5	297,363		0.0000	1.0000	100.00
22.5	297,363		0.0000	1.0000	100.00
23.5	297,363		0.0000	1.0000	100.00
24.5	294,282		0.0000	1.0000	100.00
25.5	294,282		0.0000	1.0000	100.00
26.5	245,456		0.0000	1.0000	100.00
27.5	171,575		0.0000	1.0000	100.00
28.5	171,575		0.0000	1.0000	100.00
29.5	168,697		0.0000	1.0000	100.00
30.5	152,757		0.0000	1.0000	100.00
31.5	152,757		0.0000	1.0000	100.00
32.5	139,942		0.0000	1.0000	100.00
33.5					100.00

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 357.00 OTHER EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

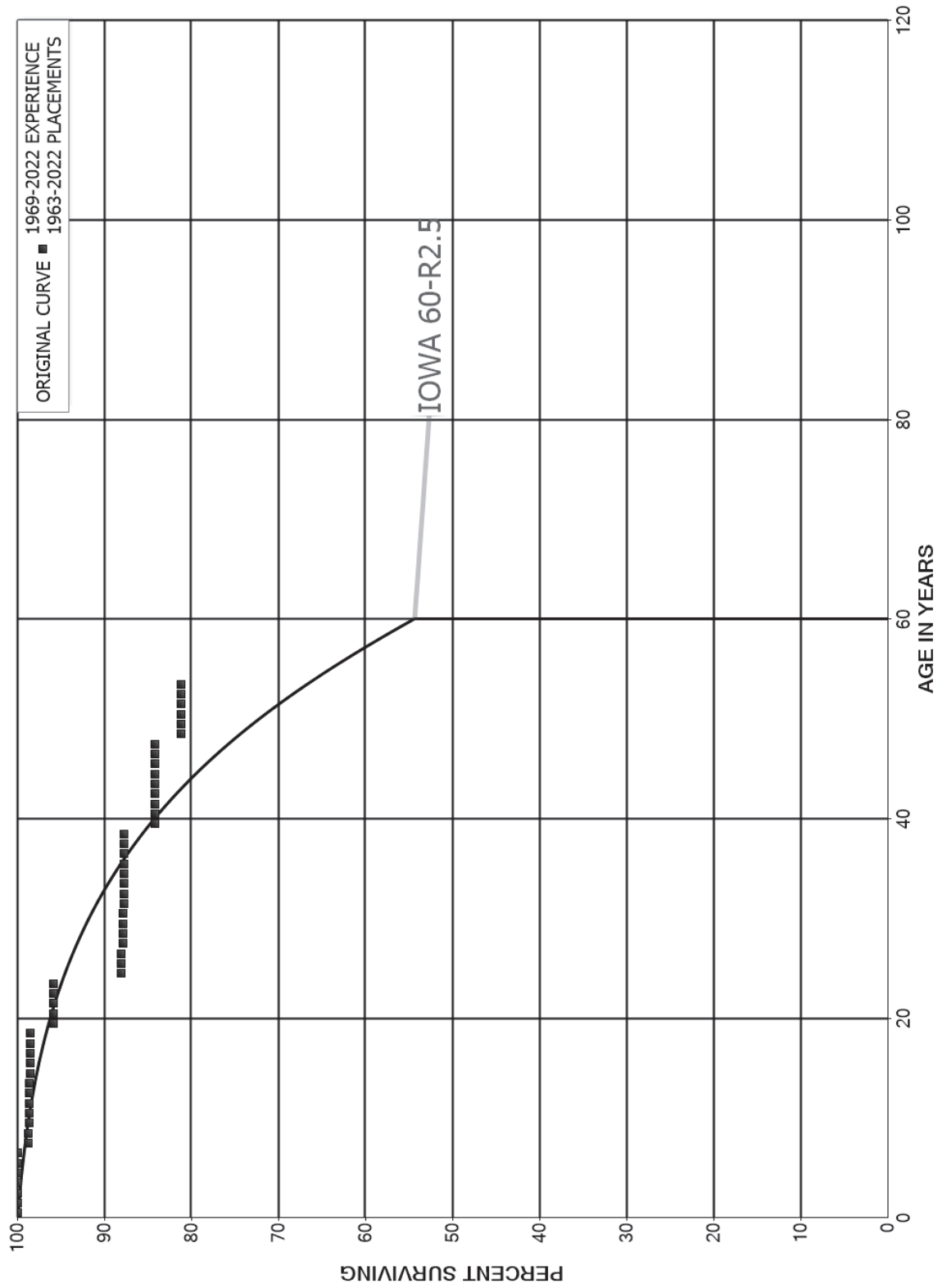
ACCOUNT 357.00 OTHER EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2022			EXPERIENCE BAND 1989-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,255,463		0.0000	1.0000	100.00
0.5	5,141,896		0.0000	1.0000	100.00
1.5	4,666,683		0.0000	1.0000	100.00
2.5	2,422,822		0.0000	1.0000	100.00
3.5	2,422,822		0.0000	1.0000	100.00
4.5	1,395,285		0.0000	1.0000	100.00
5.5	1,395,285		0.0000	1.0000	100.00
6.5	1,395,285		0.0000	1.0000	100.00
7.5	1,395,285		0.0000	1.0000	100.00
8.5	1,395,285		0.0000	1.0000	100.00
9.5	1,395,285		0.0000	1.0000	100.00
10.5	1,395,285		0.0000	1.0000	100.00
11.5	1,395,285		0.0000	1.0000	100.00
12.5	1,395,285		0.0000	1.0000	100.00
13.5	1,332,029		0.0000	1.0000	100.00
14.5	702,587		0.0000	1.0000	100.00
15.5	702,587		0.0000	1.0000	100.00
16.5	702,587		0.0000	1.0000	100.00
17.5	702,587		0.0000	1.0000	100.00
18.5	702,587		0.0000	1.0000	100.00
19.5	702,587		0.0000	1.0000	100.00
20.5	702,587		0.0000	1.0000	100.00
21.5	702,587		0.0000	1.0000	100.00
22.5	702,587		0.0000	1.0000	100.00
23.5	646,258		0.0000	1.0000	100.00
24.5	82,037		0.0000	1.0000	100.00
25.5	82,037		0.0000	1.0000	100.00
26.5	82,037		0.0000	1.0000	100.00
27.5	82,037		0.0000	1.0000	100.00
28.5	82,037		0.0000	1.0000	100.00
29.5	82,037		0.0000	1.0000	100.00
30.5	76,057		0.0000	1.0000	100.00
31.5	76,057		0.0000	1.0000	100.00
32.5	76,057		0.0000	1.0000	100.00
33.5					100.00



NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1963-2022

EXPERIENCE BAND 1969-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	25,433,163	44	0.0000	1.0000	100.00
0.5	23,982,076		0.0000	1.0000	100.00
1.5	23,532,775		0.0000	1.0000	100.00
2.5	23,361,127		0.0000	1.0000	100.00
3.5	23,193,204		0.0000	1.0000	100.00
4.5	15,681,596	44	0.0000	1.0000	100.00
5.5	12,828,703		0.0000	1.0000	100.00
6.5	9,280,825	123,196	0.0133	0.9867	100.00
7.5	9,103,804		0.0000	1.0000	98.67
8.5	9,050,517	4,058	0.0004	0.9996	98.67
9.5	9,046,459		0.0000	1.0000	98.63
10.5	8,942,963		0.0000	1.0000	98.63
11.5	8,661,178		0.0000	1.0000	98.63
12.5	7,912,962		0.0000	1.0000	98.63
13.5	6,562,103	6,596	0.0010	0.9990	98.63
14.5	5,296,524		0.0000	1.0000	98.53
15.5	4,864,332		0.0000	1.0000	98.53
16.5	3,854,896		0.0000	1.0000	98.53
17.5	3,659,257	1,150	0.0003	0.9997	98.53
18.5	3,639,683	97,968	0.0269	0.9731	98.50
19.5	3,541,714		0.0000	1.0000	95.85
20.5	3,414,287		0.0000	1.0000	95.85
21.5	3,334,846		0.0000	1.0000	95.85
22.5	3,292,618		0.0000	1.0000	95.85
23.5	3,107,432	253,844	0.0817	0.9183	95.85
24.5	2,786,531		0.0000	1.0000	88.02
25.5	2,594,384		0.0000	1.0000	88.02
26.5	2,483,579	5,060	0.0020	0.9980	88.02
27.5	2,395,109	478	0.0002	0.9998	87.84
28.5	2,143,139		0.0000	1.0000	87.82
29.5	2,074,412		0.0000	1.0000	87.82
30.5	1,927,592	2,147	0.0011	0.9989	87.82
31.5	1,838,391	568	0.0003	0.9997	87.72
32.5	1,813,495		0.0000	1.0000	87.70
33.5	1,729,977		0.0000	1.0000	87.70
34.5	1,682,462		0.0000	1.0000	87.70
35.5	1,673,588		0.0000	1.0000	87.70
36.5	1,664,262		0.0000	1.0000	87.70
37.5	1,644,107		0.0000	1.0000	87.70
38.5	1,643,837	66,938	0.0407	0.9593	87.70

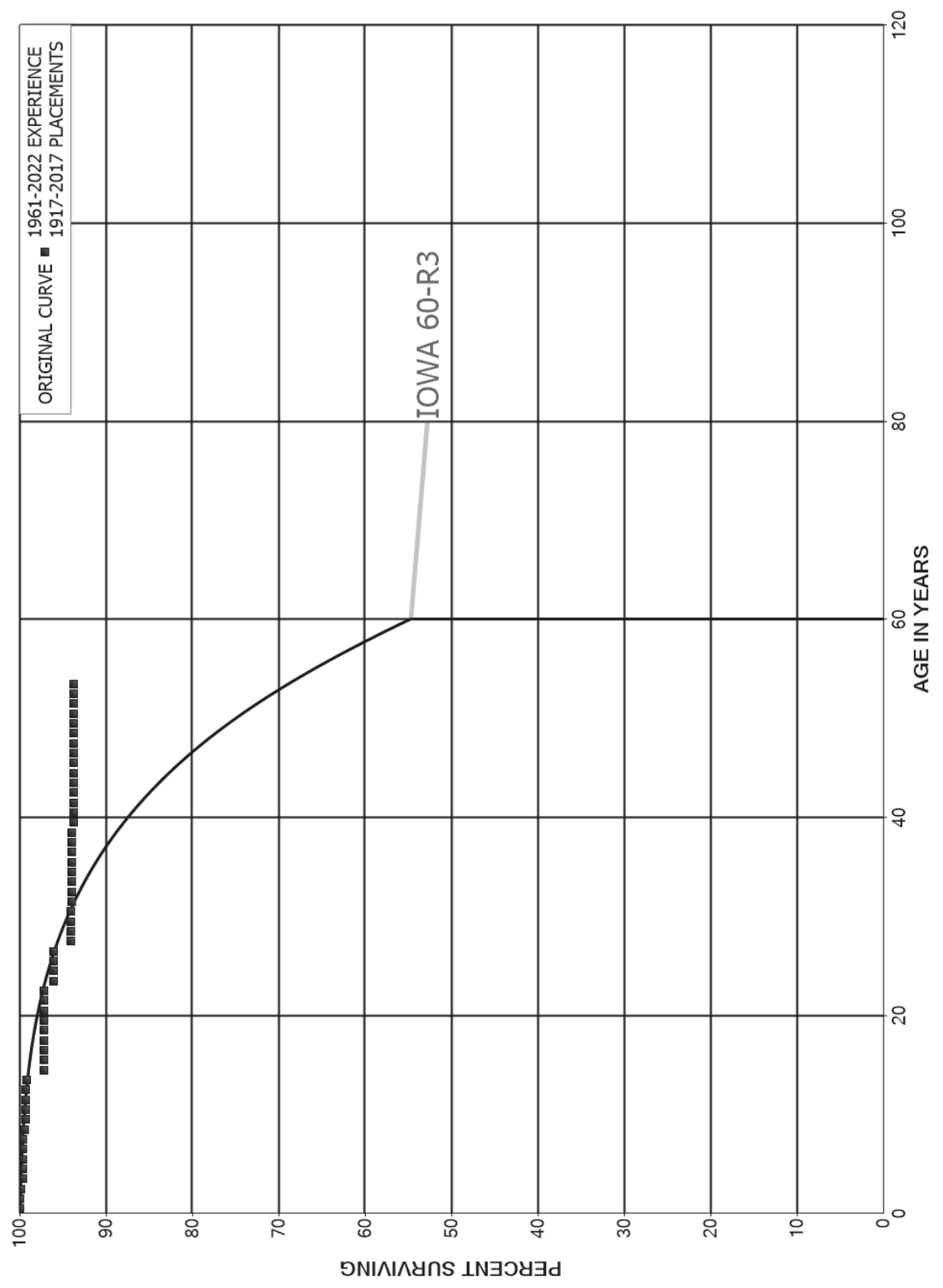
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1963-2022			EXPERIENCE BAND 1969-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,576,899		0.0000	1.0000	84.12
40.5	1,516,207		0.0000	1.0000	84.12
41.5	1,515,190		0.0000	1.0000	84.12
42.5	1,515,190		0.0000	1.0000	84.12
43.5	1,499,105		0.0000	1.0000	84.12
44.5	1,457,539		0.0000	1.0000	84.12
45.5	746,366		0.0000	1.0000	84.12
46.5	731,809		0.0000	1.0000	84.12
47.5	722,166	25,020	0.0346	0.9654	84.12
48.5	91,537		0.0000	1.0000	81.21
49.5	91,537		0.0000	1.0000	81.21
50.5	91,537		0.0000	1.0000	81.21
51.5	91,537		0.0000	1.0000	81.21
52.5	65,448		0.0000	1.0000	81.21
53.5	6,036		0.0000	1.0000	81.21
54.5	5,509		0.0000	1.0000	81.21
55.5	5,509		0.0000	1.0000	81.21
56.5	5,509		0.0000	1.0000	81.21
57.5	4,009		0.0000	1.0000	81.21
58.5	4,009		0.0000	1.0000	81.21
59.5					81.21

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 362.00 GAS HOLDERS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 362.00 GAS HOLDERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1917-2017

EXPERIENCE BAND 1961-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	10,695,129		0.0000	1.0000	100.00
0.5	10,768,044	954	0.0001	0.9999	100.00
1.5	10,727,563	20,788	0.0019	0.9981	99.99
2.5	10,733,167	24,257	0.0023	0.9977	99.80
3.5	10,734,121		0.0000	1.0000	99.57
4.5	10,733,944		0.0000	1.0000	99.57
5.5	10,362,210		0.0000	1.0000	99.57
6.5	8,675,277		0.0000	1.0000	99.57
7.5	8,621,453	12,049	0.0014	0.9986	99.57
8.5	8,576,872	11,416	0.0013	0.9987	99.43
9.5	8,573,429	472	0.0001	0.9999	99.30
10.5	8,573,608		0.0000	1.0000	99.29
11.5	8,551,119		0.0000	1.0000	99.29
12.5	8,551,119	8,994	0.0011	0.9989	99.29
13.5	8,813,824	174,892	0.0198	0.9802	99.19
14.5	8,813,824		0.0000	1.0000	97.22
15.5	8,813,824	2,066	0.0002	0.9998	97.22
16.5	8,448,084		0.0000	1.0000	97.20
17.5	8,444,380		0.0000	1.0000	97.20
18.5	8,444,380		0.0000	1.0000	97.20
19.5	8,442,780		0.0000	1.0000	97.20
20.5	8,442,780		0.0000	1.0000	97.20
21.5	8,442,709		0.0000	1.0000	97.20
22.5	8,442,031	96,759	0.0115	0.9885	97.20
23.5	8,345,123		0.0000	1.0000	96.09
24.5	8,345,123	1,431	0.0002	0.9998	96.09
25.5	8,345,123		0.0000	1.0000	96.07
26.5	8,206,631	174,892	0.0213	0.9787	96.07
27.5	8,028,102		0.0000	1.0000	94.02
28.5	7,954,233		0.0000	1.0000	94.02
29.5	7,935,242		0.0000	1.0000	94.02
30.5	7,932,289	1,200	0.0002	0.9998	94.02
31.5	7,930,072		0.0000	1.0000	94.01
32.5	7,930,072		0.0000	1.0000	94.01
33.5	7,930,072		0.0000	1.0000	94.01
34.5	7,922,701		0.0000	1.0000	94.01
35.5	7,931,283		0.0000	1.0000	94.01
36.5	7,931,283		0.0000	1.0000	94.01
37.5	7,931,283		0.0000	1.0000	94.01
38.5	7,311,305	18,053	0.0025	0.9975	94.01

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 362.00 GAS HOLDERS

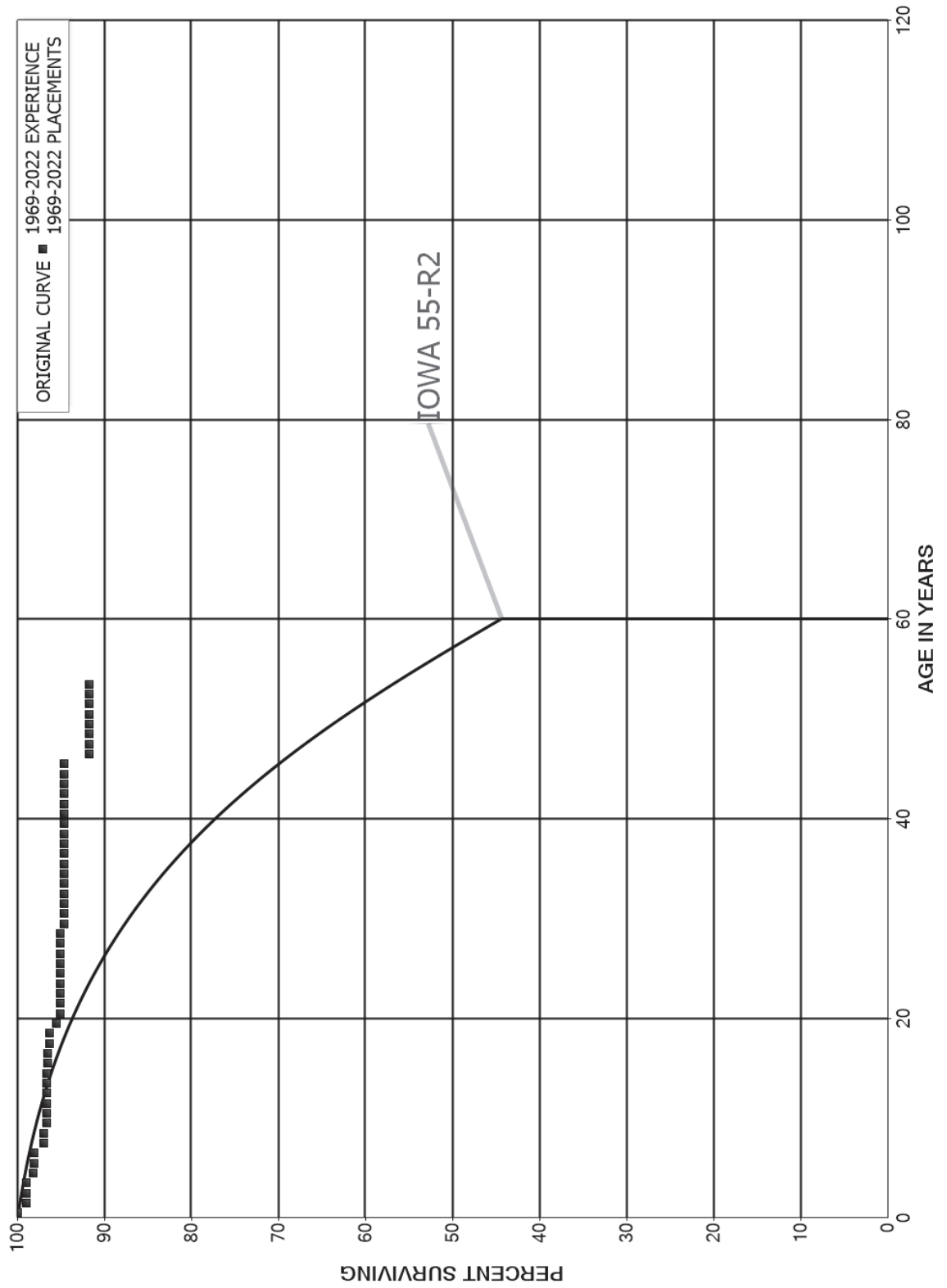
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1917-2017

EXPERIENCE BAND 1961-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	7,292,283		0.0000	1.0000	93.78
40.5	7,292,283		0.0000	1.0000	93.78
41.5	7,292,283		0.0000	1.0000	93.78
42.5	7,292,283		0.0000	1.0000	93.78
43.5	7,292,380		0.0000	1.0000	93.78
44.5	7,282,078		0.0000	1.0000	93.78
45.5	1,730,784		0.0000	1.0000	93.78
46.5	1,730,784		0.0000	1.0000	93.78
47.5	1,730,784	602	0.0003	0.9997	93.78
48.5	1,729,367		0.0000	1.0000	93.74
49.5	1,729,367		0.0000	1.0000	93.74
50.5	1,729,367		0.0000	1.0000	93.74
51.5	1,729,367		0.0000	1.0000	93.74
52.5	1,729,367		0.0000	1.0000	93.74
53.5	8,858		0.0000	1.0000	93.74
54.5	8,858		0.0000	1.0000	93.74
55.5	8,858		0.0000	1.0000	93.74
56.5	8,858		0.0000	1.0000	93.74
57.5	8,858		0.0000	1.0000	93.74
58.5	8,858		0.0000	1.0000	93.74
59.5	8,858		0.0000	1.0000	93.74
60.5	97		0.0000	1.0000	93.74
61.5	97		0.0000	1.0000	93.74
62.5	97		0.0000	1.0000	93.74
63.5	97		0.0000	1.0000	93.74
64.5	97		0.0000	1.0000	93.74
65.5	97		0.0000	1.0000	93.74
66.5	97		0.0000	1.0000	93.74
67.5	97		0.0000	1.0000	93.74
68.5					93.74

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 363.10 LIQUEFACTION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.10 LIQUEFACTION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1969-2022

EXPERIENCE BAND 1969-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	27,012,639	28,598	0.0011	0.9989	100.00
0.5	20,439,803	199,635	0.0098	0.9902	99.89
1.5	20,140,001		0.0000	1.0000	98.92
2.5	19,794,898		0.0000	1.0000	98.92
3.5	19,563,714	146,338	0.0075	0.9925	98.92
4.5	14,568,815	18,698	0.0013	0.9987	98.18
5.5	10,875,424		0.0000	1.0000	98.05
6.5	10,472,636	114,090	0.0109	0.9891	98.05
7.5	10,304,721		0.0000	1.0000	96.98
8.5	9,947,870	34,692	0.0035	0.9965	96.98
9.5	9,758,855		0.0000	1.0000	96.65
10.5	9,685,872		0.0000	1.0000	96.65
11.5	9,685,872		0.0000	1.0000	96.65
12.5	9,685,872	434	0.0000	1.0000	96.65
13.5	9,615,025		0.0000	1.0000	96.64
14.5	9,552,647	13,425	0.0014	0.9986	96.64
15.5	9,495,419		0.0000	1.0000	96.51
16.5	9,339,565	18,523	0.0020	0.9980	96.51
17.5	9,272,709	3,226	0.0003	0.9997	96.31
18.5	8,974,436	74,502	0.0083	0.9917	96.28
19.5	8,768,268	34,032	0.0039	0.9961	95.48
20.5	8,665,232		0.0000	1.0000	95.11
21.5	8,199,959		0.0000	1.0000	95.11
22.5	8,111,837		0.0000	1.0000	95.11
23.5	7,783,304		0.0000	1.0000	95.11
24.5	7,234,849		0.0000	1.0000	95.11
25.5	6,950,150		0.0000	1.0000	95.11
26.5	6,757,315	399	0.0001	0.9999	95.11
27.5	6,754,705		0.0000	1.0000	95.11
28.5	6,737,997	35,128	0.0052	0.9948	95.11
29.5	6,686,673		0.0000	1.0000	94.61
30.5	6,605,144		0.0000	1.0000	94.61
31.5	6,501,938		0.0000	1.0000	94.61
32.5	6,412,166		0.0000	1.0000	94.61
33.5	6,390,407		0.0000	1.0000	94.61
34.5	6,390,407		0.0000	1.0000	94.61
35.5	6,313,086		0.0000	1.0000	94.61
36.5	6,298,223		0.0000	1.0000	94.61
37.5	6,286,698		0.0000	1.0000	94.61
38.5	6,264,779		0.0000	1.0000	94.61



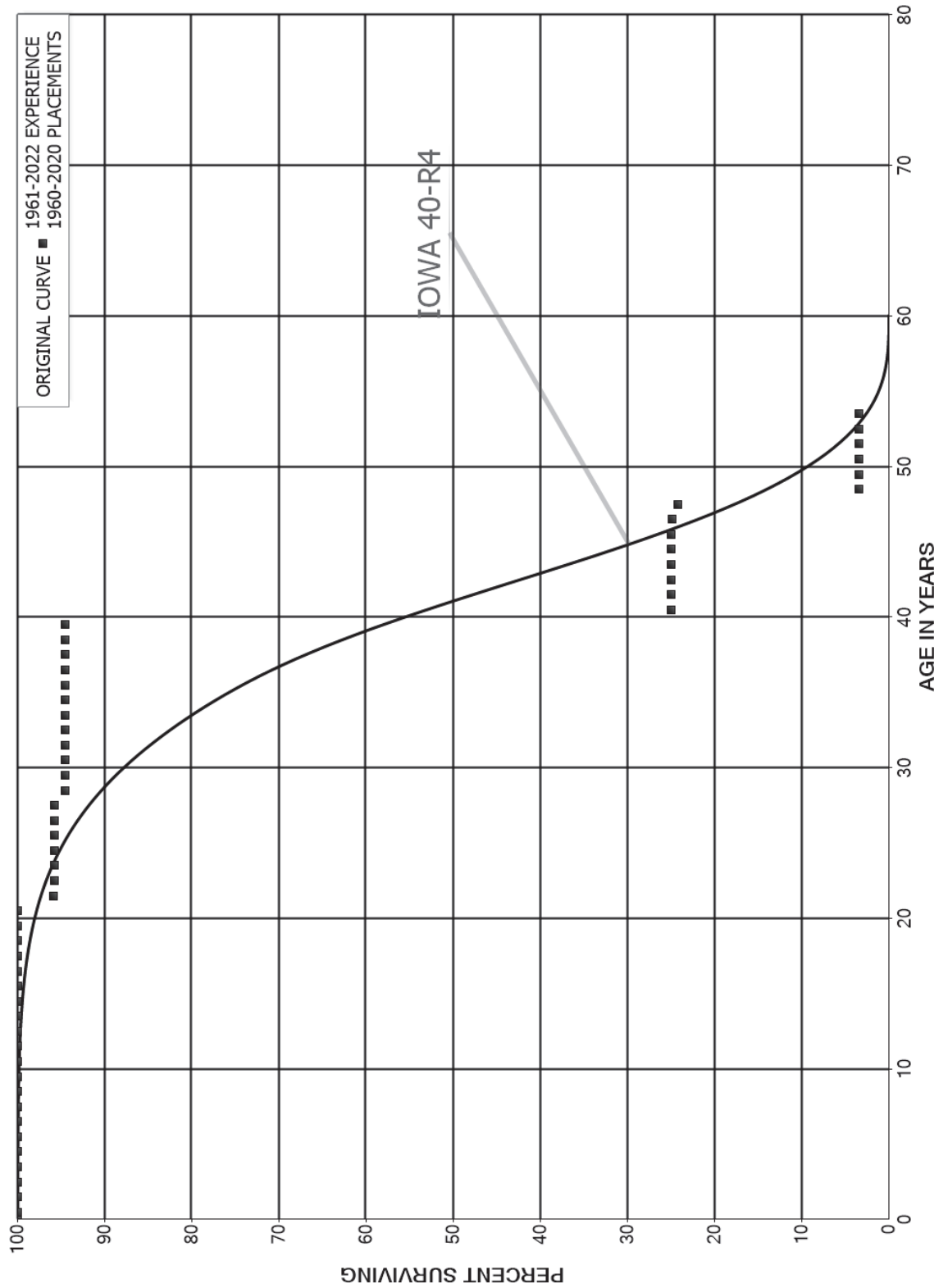
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.10 LIQUEFACTION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1969-2022			EXPERIENCE BAND 1969-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	6,264,779		0.0000	1.0000	94.61
40.5	6,264,779		0.0000	1.0000	94.61
41.5	6,264,779		0.0000	1.0000	94.61
42.5	6,164,100		0.0000	1.0000	94.61
43.5	6,158,562		0.0000	1.0000	94.61
44.5	6,142,214		0.0000	1.0000	94.61
45.5	905,417	27,318	0.0302	0.9698	94.61
46.5	852,144		0.0000	1.0000	91.76
47.5	851,876		0.0000	1.0000	91.76
48.5	849,919		0.0000	1.0000	91.76
49.5	849,919		0.0000	1.0000	91.76
50.5	845,658		0.0000	1.0000	91.76
51.5	844,045		0.0000	1.0000	91.76
52.5	828,857		0.0000	1.0000	91.76
53.5					91.76

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 363.20 VAPORIZING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.20 VAPORIZING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2020

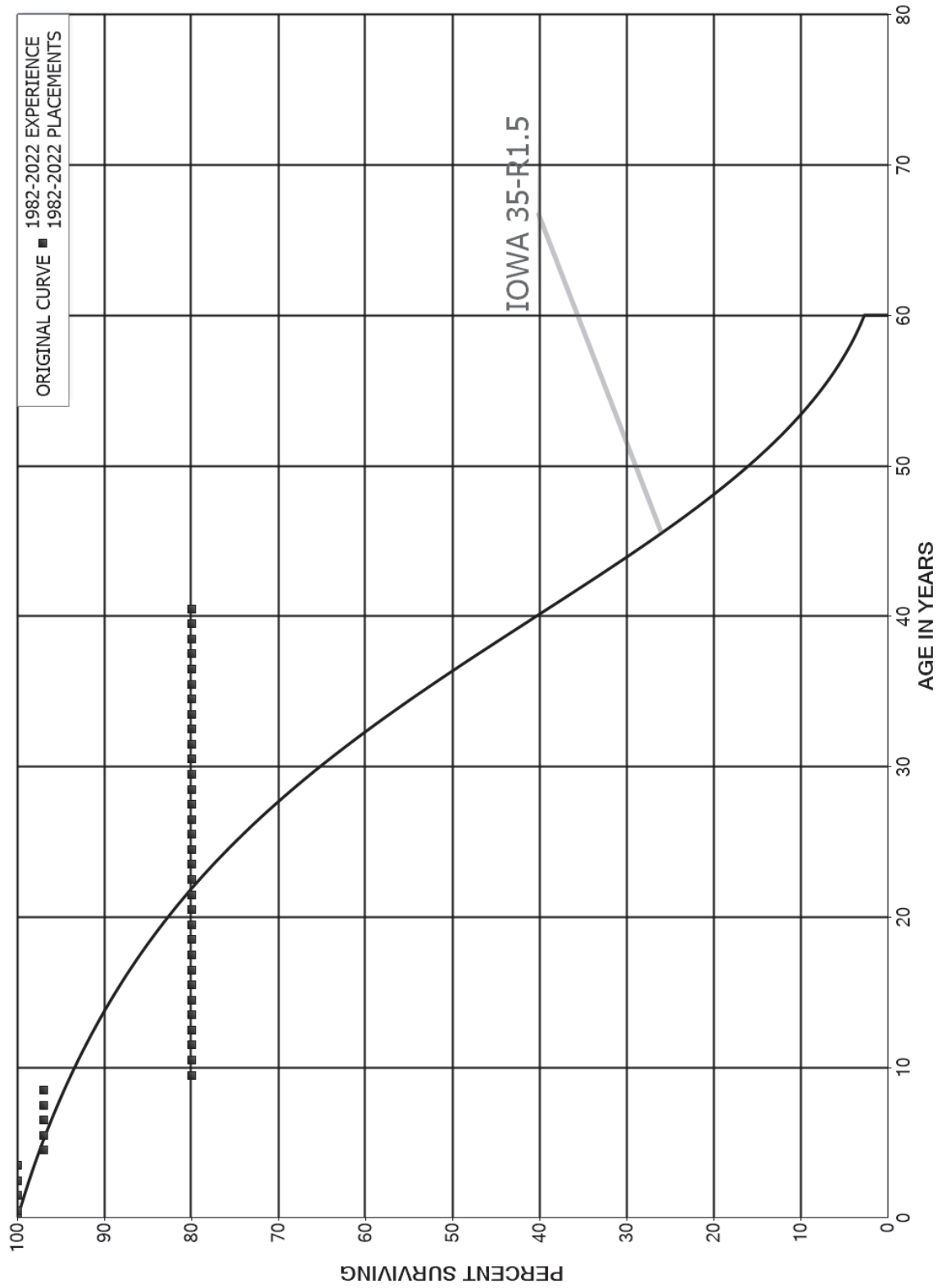
EXPERIENCE BAND 1961-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,820,840		0.0000	1.0000	100.00
0.5	13,820,840	602	0.0000	1.0000	100.00
1.5	14,023,474		0.0000	1.0000	100.00
2.5	11,055,638	1,415	0.0001	0.9999	100.00
3.5	11,055,638		0.0000	1.0000	99.98
4.5	11,055,638		0.0000	1.0000	99.98
5.5	6,584,958		0.0000	1.0000	99.98
6.5	6,584,958	1,983	0.0003	0.9997	99.98
7.5	6,436,057		0.0000	1.0000	99.95
8.5	6,436,057	2,322	0.0004	0.9996	99.95
9.5	6,433,834		0.0000	1.0000	99.92
10.5	6,433,834		0.0000	1.0000	99.92
11.5	5,320,819		0.0000	1.0000	99.92
12.5	5,320,819		0.0000	1.0000	99.92
13.5	5,320,819		0.0000	1.0000	99.92
14.5	5,320,819		0.0000	1.0000	99.92
15.5	5,320,819		0.0000	1.0000	99.92
16.5	4,999,612		0.0000	1.0000	99.92
17.5	4,999,612		0.0000	1.0000	99.92
18.5	4,931,166		0.0000	1.0000	99.92
19.5	4,931,166		0.0000	1.0000	99.92
20.5	4,930,986	200,000	0.0406	0.9594	99.92
21.5	4,730,986	8,350	0.0018	0.9982	95.86
22.5	4,722,636		0.0000	1.0000	95.69
23.5	4,722,636	455	0.0001	0.9999	95.69
24.5	4,722,181	436	0.0001	0.9999	95.69
25.5	4,721,745		0.0000	1.0000	95.68
26.5	4,721,745	303	0.0001	0.9999	95.68
27.5	4,710,261	59,483	0.0126	0.9874	95.67
28.5	4,618,017		0.0000	1.0000	94.46
29.5	4,618,016		0.0000	1.0000	94.46
30.5	4,615,790		0.0000	1.0000	94.46
31.5	4,429,354		0.0000	1.0000	94.46
32.5	3,273,347		0.0000	1.0000	94.46
33.5	3,273,347		0.0000	1.0000	94.46
34.5	3,273,347		0.0000	1.0000	94.46
35.5	3,095,885		0.0000	1.0000	94.46
36.5	3,083,807		0.0000	1.0000	94.46
37.5	3,083,807		0.0000	1.0000	94.46
38.5	3,083,807		0.0000	1.0000	94.46

NORTHWEST NATURAL GAS COMPANY  
ACCOUNT 363.20 VAPORIZING EQUIPMENT  
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2020			EXPERIENCE BAND 1961-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	3,083,807	2,269,514	0.7359	0.2641	94.46
40.5	814,293		0.0000	1.0000	24.94
41.5	814,293		0.0000	1.0000	24.94
42.5	814,293		0.0000	1.0000	24.94
43.5	814,293		0.0000	1.0000	24.94
44.5	814,293		0.0000	1.0000	24.94
45.5	753,468	4,062	0.0054	0.9946	24.94
46.5	362,742	9,122	0.0251	0.9749	24.81
47.5	353,351	303,259	0.8582	0.1418	24.18
48.5	47,833		0.0000	1.0000	3.43
49.5	34,582		0.0000	1.0000	3.43
50.5	32,214		0.0000	1.0000	3.43
51.5	18,960		0.0000	1.0000	3.43
52.5	18,960		0.0000	1.0000	3.43
53.5					3.43

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 363.30 COMPRESSOR EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.30 COMPRESSOR EQUIPMENT

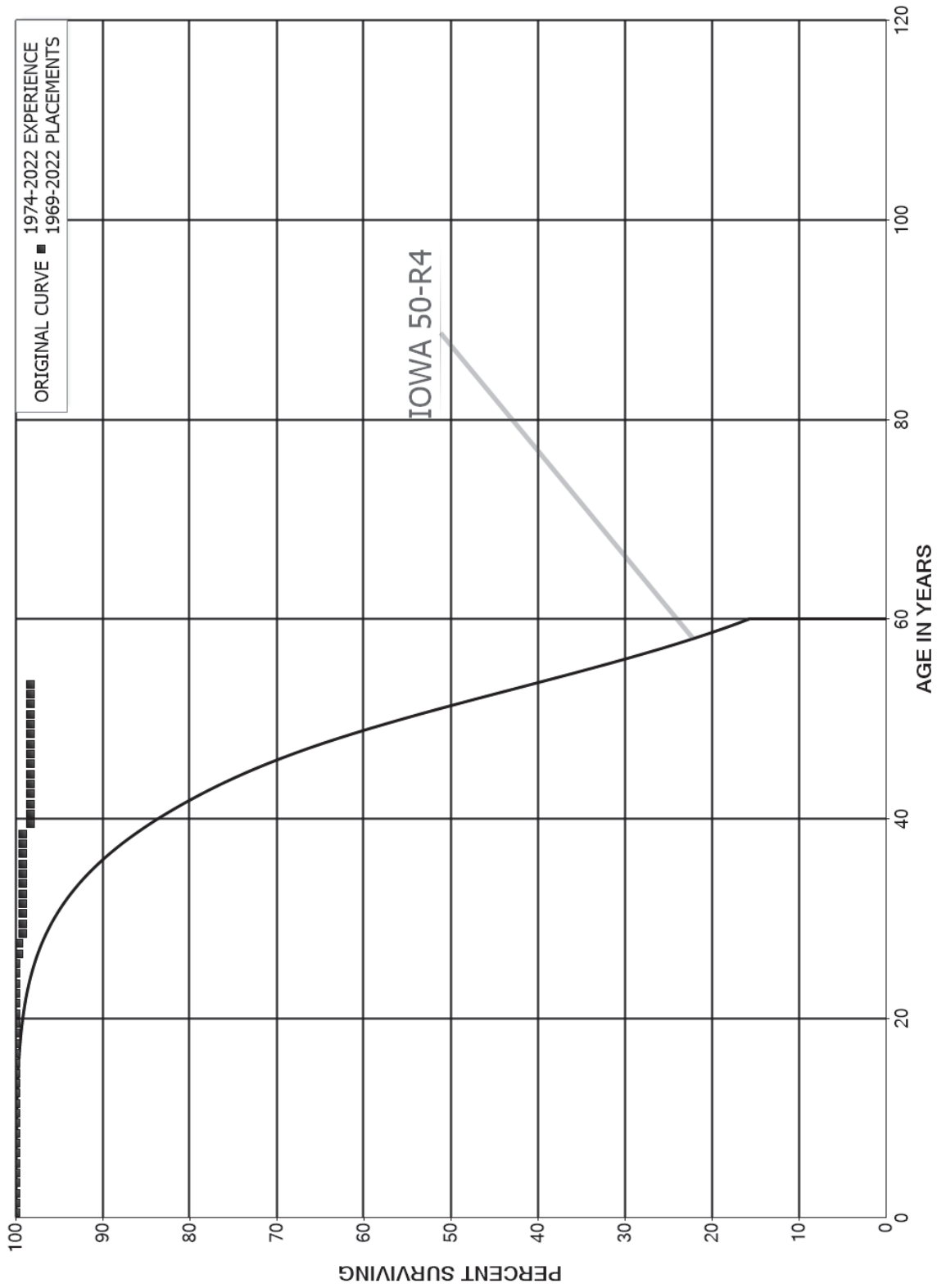
ORIGINAL LIFE TABLE

PLACEMENT BAND 1982-2022

EXPERIENCE BAND 1982-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	6,207,702		0.0000	1.0000	100.00
0.5	5,961,554		0.0000	1.0000	100.00
1.5	5,161,937		0.0000	1.0000	100.00
2.5	5,040,754	273	0.0001	0.9999	100.00
3.5	5,040,481	151,425	0.0300	0.9700	99.99
4.5	4,632,459		0.0000	1.0000	96.99
5.5	4,134,653		0.0000	1.0000	96.99
6.5	1,867,683		0.0000	1.0000	96.99
7.5	1,867,683		0.0000	1.0000	96.99
8.5	481,854	84,841	0.1761	0.8239	96.99
9.5	397,013		0.0000	1.0000	79.91
10.5	397,013		0.0000	1.0000	79.91
11.5	397,013		0.0000	1.0000	79.91
12.5	397,013		0.0000	1.0000	79.91
13.5	397,013		0.0000	1.0000	79.91
14.5	343,850		0.0000	1.0000	79.91
15.5	343,850		0.0000	1.0000	79.91
16.5	343,850		0.0000	1.0000	79.91
17.5	327,070		0.0000	1.0000	79.91
18.5	327,070		0.0000	1.0000	79.91
19.5	148,568		0.0000	1.0000	79.91
20.5	148,568		0.0000	1.0000	79.91
21.5	148,568		0.0000	1.0000	79.91
22.5	148,568		0.0000	1.0000	79.91
23.5	148,568		0.0000	1.0000	79.91
24.5	148,568		0.0000	1.0000	79.91
25.5	127,741		0.0000	1.0000	79.91
26.5	108,320		0.0000	1.0000	79.91
27.5	108,320		0.0000	1.0000	79.91
28.5	108,320		0.0000	1.0000	79.91
29.5	108,320		0.0000	1.0000	79.91
30.5	108,320		0.0000	1.0000	79.91
31.5	108,320		0.0000	1.0000	79.91
32.5	108,320		0.0000	1.0000	79.91
33.5	108,320		0.0000	1.0000	79.91
34.5	108,320		0.0000	1.0000	79.91
35.5	108,320		0.0000	1.0000	79.91
36.5	86,804		0.0000	1.0000	79.91
37.5	86,804		0.0000	1.0000	79.91
38.5	86,804		0.0000	1.0000	79.91
39.5	85,687		0.0000	1.0000	79.91
40.5					79.91

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 363.40 MEASURING AND REGULATING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.40 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1969-2022			EXPERIENCE BAND 1974-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	19,059,447		0.0000	1.0000	100.00
0.5	13,805,464		0.0000	1.0000	100.00
1.5	13,286,310		0.0000	1.0000	100.00
2.5	12,980,119		0.0000	1.0000	100.00
3.5	12,872,234		0.0000	1.0000	100.00
4.5	12,752,913		0.0000	1.0000	100.00
5.5	1,362,034		0.0000	1.0000	100.00
6.5	1,362,034		0.0000	1.0000	100.00
7.5	1,362,034		0.0000	1.0000	100.00
8.5	1,002,125		0.0000	1.0000	100.00
9.5	850,563		0.0000	1.0000	100.00
10.5	850,563		0.0000	1.0000	100.00
11.5	850,563		0.0000	1.0000	100.00
12.5	850,563		0.0000	1.0000	100.00
13.5	682,272		0.0000	1.0000	100.00
14.5	682,272		0.0000	1.0000	100.00
15.5	682,272		0.0000	1.0000	100.00
16.5	653,998		0.0000	1.0000	100.00
17.5	653,998		0.0000	1.0000	100.00
18.5	653,998		0.0000	1.0000	100.00
19.5	653,998		0.0000	1.0000	100.00
20.5	636,675		0.0000	1.0000	100.00
21.5	636,675		0.0000	1.0000	100.00
22.5	636,675		0.0000	1.0000	100.00
23.5	636,675		0.0000	1.0000	100.00
24.5	636,675		0.0000	1.0000	100.00
25.5	636,675	2,647	0.0042	0.9958	100.00
26.5	634,028		0.0000	1.0000	99.58
27.5	634,028	2,566	0.0040	0.9960	99.58
28.5	631,462		0.0000	1.0000	99.18
29.5	631,462		0.0000	1.0000	99.18
30.5	628,091		0.0000	1.0000	99.18
31.5	607,580		0.0000	1.0000	99.18
32.5	560,097		0.0000	1.0000	99.18
33.5	555,322		0.0000	1.0000	99.18
34.5	545,620		0.0000	1.0000	99.18
35.5	545,620		0.0000	1.0000	99.18
36.5	545,620		0.0000	1.0000	99.18
37.5	541,958		0.0000	1.0000	99.18
38.5	541,958	4,721	0.0087	0.9913	99.18



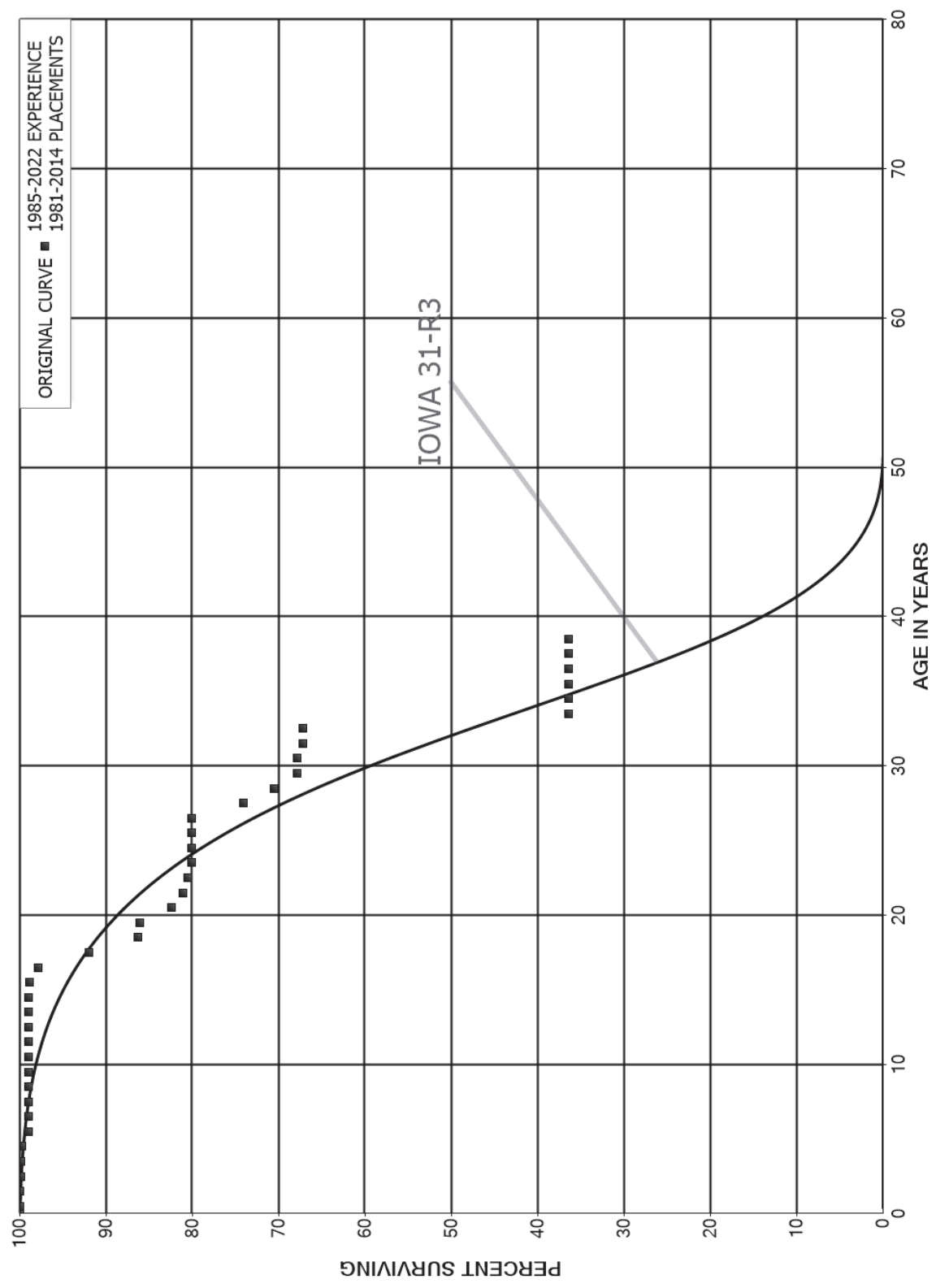
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.40 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1969-2022			EXPERIENCE BAND 1974-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	537,237		0.0000	1.0000	98.32
40.5	537,237		0.0000	1.0000	98.32
41.5	537,237		0.0000	1.0000	98.32
42.5	537,237		0.0000	1.0000	98.32
43.5	537,237		0.0000	1.0000	98.32
44.5	537,237		0.0000	1.0000	98.32
45.5	482,034		0.0000	1.0000	98.32
46.5	482,034		0.0000	1.0000	98.32
47.5	481,660		0.0000	1.0000	98.32
48.5	480,333		0.0000	1.0000	98.32
49.5	480,333		0.0000	1.0000	98.32
50.5	474,008		0.0000	1.0000	98.32
51.5	464,177		0.0000	1.0000	98.32
52.5	461,537		0.0000	1.0000	98.32
53.5					98.32

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 363.50 CNG REFUELING FACILITIES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.50 CNG REFUELING FACILITIES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1981-2014

EXPERIENCE BAND 1985-2022

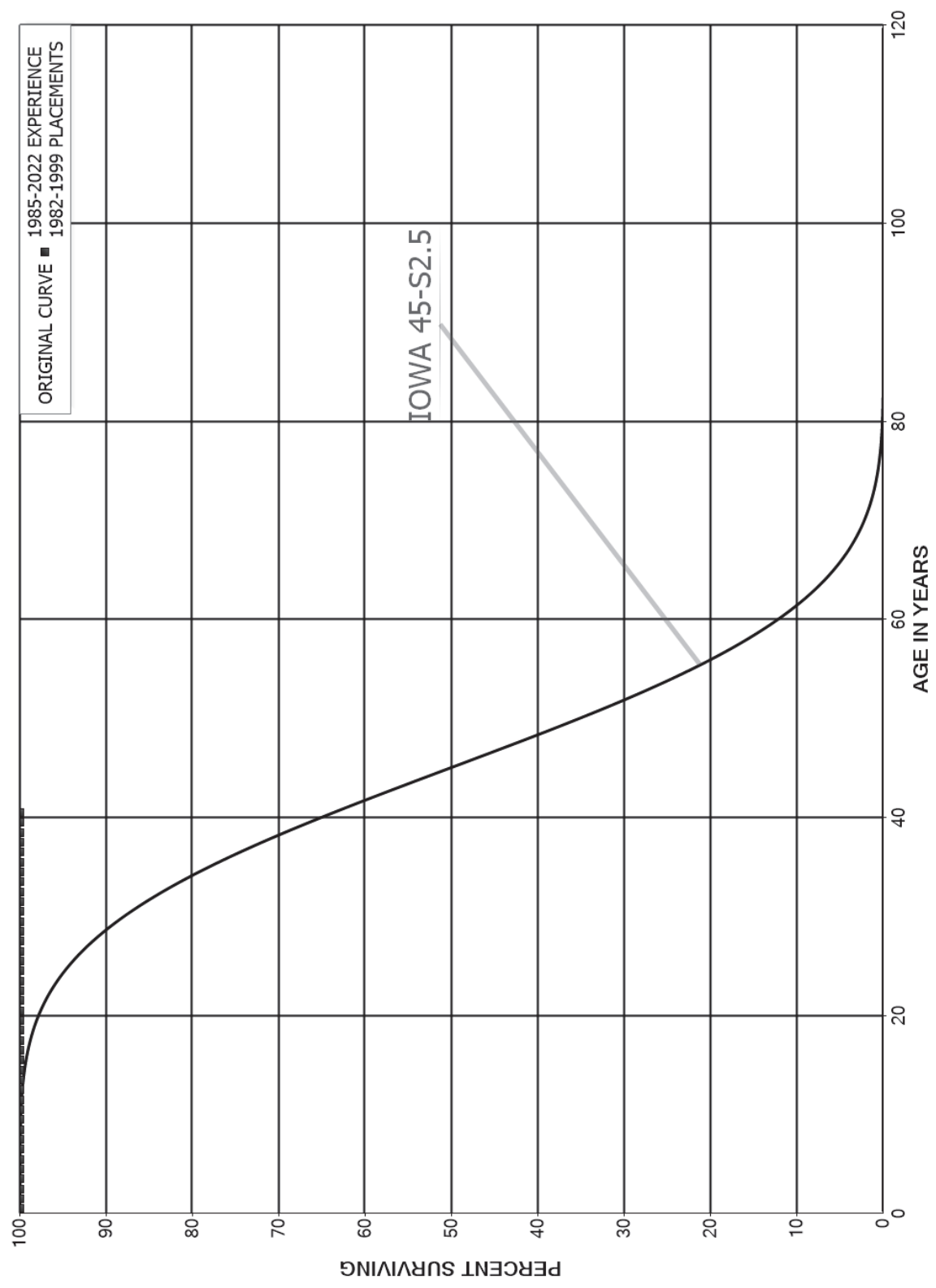
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,397,353		0.0000	1.0000	100.00
0.5	3,397,353	3,726	0.0011	0.9989	100.00
1.5	3,504,352	13	0.0000	1.0000	99.89
2.5	3,509,603	1,280	0.0004	0.9996	99.89
3.5	3,517,228	3,071	0.0009	0.9991	99.85
4.5	3,629,180	27,968	0.0077	0.9923	99.77
5.5	3,601,212		0.0000	1.0000	99.00
6.5	3,601,212		0.0000	1.0000	99.00
7.5	3,601,212		0.0000	1.0000	99.00
8.5	2,068,805		0.0000	1.0000	99.00
9.5	1,945,791		0.0000	1.0000	99.00
10.5	1,828,161		0.0000	1.0000	99.00
11.5	1,828,161		0.0000	1.0000	99.00
12.5	1,828,161		0.0000	1.0000	99.00
13.5	1,828,161	1,938	0.0011	0.9989	99.00
14.5	1,826,223	1,632	0.0009	0.9991	98.89
15.5	1,824,591	18,126	0.0099	0.9901	98.80
16.5	1,806,465	108,566	0.0601	0.9399	97.82
17.5	1,697,899	103,851	0.0612	0.9388	91.94
18.5	1,544,374	4,067	0.0026	0.9974	86.32
19.5	1,540,307	66,855	0.0434	0.9566	86.09
20.5	1,472,152	22,396	0.0152	0.9848	82.36
21.5	1,449,756	10,299	0.0071	0.9929	81.10
22.5	1,439,457	8,819	0.0061	0.9939	80.53
23.5	1,426,354		0.0000	1.0000	80.03
24.5	1,397,519		0.0000	1.0000	80.03
25.5	1,349,534		0.0000	1.0000	80.03
26.5	1,121,383	84,323	0.0752	0.9248	80.03
27.5	743,701	35,635	0.0479	0.9521	74.02
28.5	359,682	13,528	0.0376	0.9624	70.47
29.5	284,944	25	0.0001	0.9999	67.82
30.5	265,212	2,421	0.0091	0.9909	67.81
31.5	210,584		0.0000	1.0000	67.19
32.5	147,105	67,435	0.4584	0.5416	67.19
33.5	79,670		0.0000	1.0000	36.39
34.5	79,670		0.0000	1.0000	36.39
35.5	79,670		0.0000	1.0000	36.39
36.5	72,652		0.0000	1.0000	36.39
37.5	71,186		0.0000	1.0000	36.39
38.5	30,743		0.0000	1.0000	36.39

NORTHWEST NATURAL GAS COMPANY  
ACCOUNT 363.50 CNG REFUELING FACILITIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1981-2014			EXPERIENCE BAND 1985-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	29,180		0.0000	1.0000	36.39
40.5	19,620		0.0000	1.0000	36.39
41.5					36.39

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 363.60 LNG REFUELLING FACILITIES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



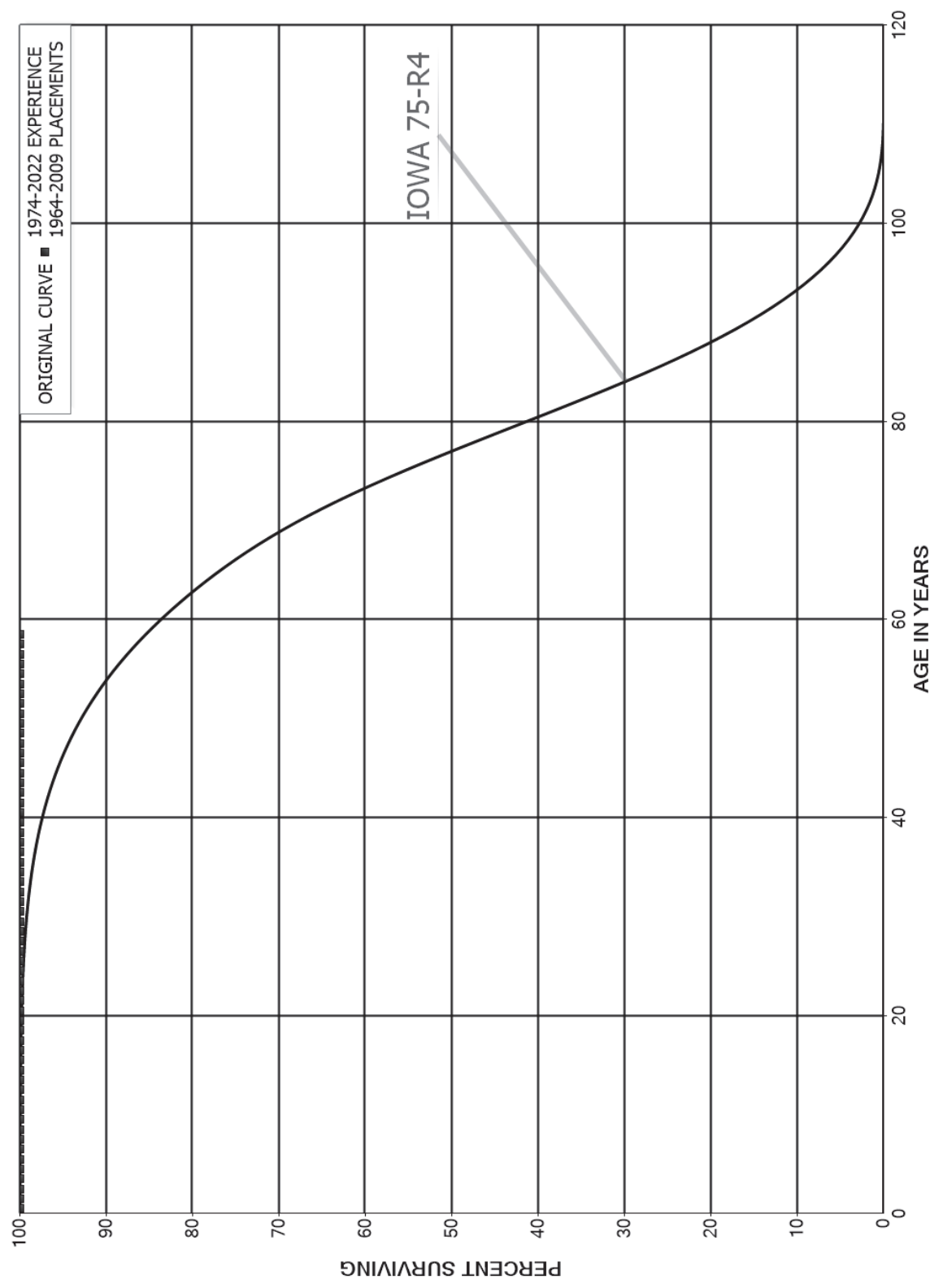
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.60 LNG REFUELING FACILITIES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1982-1999			EXPERIENCE BAND 1985-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	281,163		0.0000	1.0000	100.00
0.5	281,163		0.0000	1.0000	100.00
1.5	328,416		0.0000	1.0000	100.00
2.5	390,036		0.0000	1.0000	100.00
3.5	739,473		0.0000	1.0000	100.00
4.5	739,473		0.0000	1.0000	100.00
5.5	739,473		0.0000	1.0000	100.00
6.5	739,473		0.0000	1.0000	100.00
7.5	739,473		0.0000	1.0000	100.00
8.5	739,473		0.0000	1.0000	100.00
9.5	739,473		0.0000	1.0000	100.00
10.5	739,473		0.0000	1.0000	100.00
11.5	739,473		0.0000	1.0000	100.00
12.5	739,473		0.0000	1.0000	100.00
13.5	739,473		0.0000	1.0000	100.00
14.5	739,473		0.0000	1.0000	100.00
15.5	739,473		0.0000	1.0000	100.00
16.5	739,473		0.0000	1.0000	100.00
17.5	739,473		0.0000	1.0000	100.00
18.5	739,473		0.0000	1.0000	100.00
19.5	739,473		0.0000	1.0000	100.00
20.5	739,473		0.0000	1.0000	100.00
21.5	739,473		0.0000	1.0000	100.00
22.5	739,473		0.0000	1.0000	100.00
23.5	730,990		0.0000	1.0000	100.00
24.5	730,990		0.0000	1.0000	100.00
25.5	725,680		0.0000	1.0000	100.00
26.5	712,293		0.0000	1.0000	100.00
27.5	666,615		0.0000	1.0000	100.00
28.5	628,397		0.0000	1.0000	100.00
29.5	573,929		0.0000	1.0000	100.00
30.5	460,040		0.0000	1.0000	100.00
31.5	459,105		0.0000	1.0000	100.00
32.5	459,105		0.0000	1.0000	100.00
33.5	459,105		0.0000	1.0000	100.00
34.5	459,105		0.0000	1.0000	100.00
35.5	459,105		0.0000	1.0000	100.00
36.5	458,997		0.0000	1.0000	100.00
37.5	453,824		0.0000	1.0000	100.00
38.5	411,057		0.0000	1.0000	100.00
39.5	349,437		0.0000	1.0000	100.00
40.5					

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 365.20 LAND RIGHTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 365.20 LAND RIGHTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1964-2009

EXPERIENCE BAND 1974-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,770,969		0.0000	1.0000	100.00
0.5	5,375,541		0.0000	1.0000	100.00
1.5	5,279,074		0.0000	1.0000	100.00
2.5	5,310,109		0.0000	1.0000	100.00
3.5	5,310,109		0.0000	1.0000	100.00
4.5	5,310,109		0.0000	1.0000	100.00
5.5	5,286,730		0.0000	1.0000	100.00
6.5	5,446,043		0.0000	1.0000	100.00
7.5	5,579,754		0.0000	1.0000	100.00
8.5	6,153,400		0.0000	1.0000	100.00
9.5	6,361,083		0.0000	1.0000	100.00
10.5	6,455,177		0.0000	1.0000	100.00
11.5	6,455,177		0.0000	1.0000	100.00
12.5	6,455,177		0.0000	1.0000	100.00
13.5	6,270,968		0.0000	1.0000	100.00
14.5	6,270,968		0.0000	1.0000	100.00
15.5	6,270,968		0.0000	1.0000	100.00
16.5	6,270,968		0.0000	1.0000	100.00
17.5	6,270,968		0.0000	1.0000	100.00
18.5	4,195,148		0.0000	1.0000	100.00
19.5	3,013,374		0.0000	1.0000	100.00
20.5	2,617,946		0.0000	1.0000	100.00
21.5	2,617,946		0.0000	1.0000	100.00
22.5	2,617,946		0.0000	1.0000	100.00
23.5	2,617,946		0.0000	1.0000	100.00
24.5	2,617,946		0.0000	1.0000	100.00
25.5	2,617,946		0.0000	1.0000	100.00
26.5	2,617,946		0.0000	1.0000	100.00
27.5	2,617,946		0.0000	1.0000	100.00
28.5	2,617,946		0.0000	1.0000	100.00
29.5	2,617,946		0.0000	1.0000	100.00
30.5	2,604,197		0.0000	1.0000	100.00
31.5	2,461,137		0.0000	1.0000	100.00
32.5	2,060,125		0.0000	1.0000	100.00
33.5	1,244,309		0.0000	1.0000	100.00
34.5	1,244,309		0.0000	1.0000	100.00
35.5	1,244,309		0.0000	1.0000	100.00
36.5	1,244,309		0.0000	1.0000	100.00
37.5	1,244,309		0.0000	1.0000	100.00
38.5	1,244,309		0.0000	1.0000	100.00



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 365.20 LAND RIGHTS

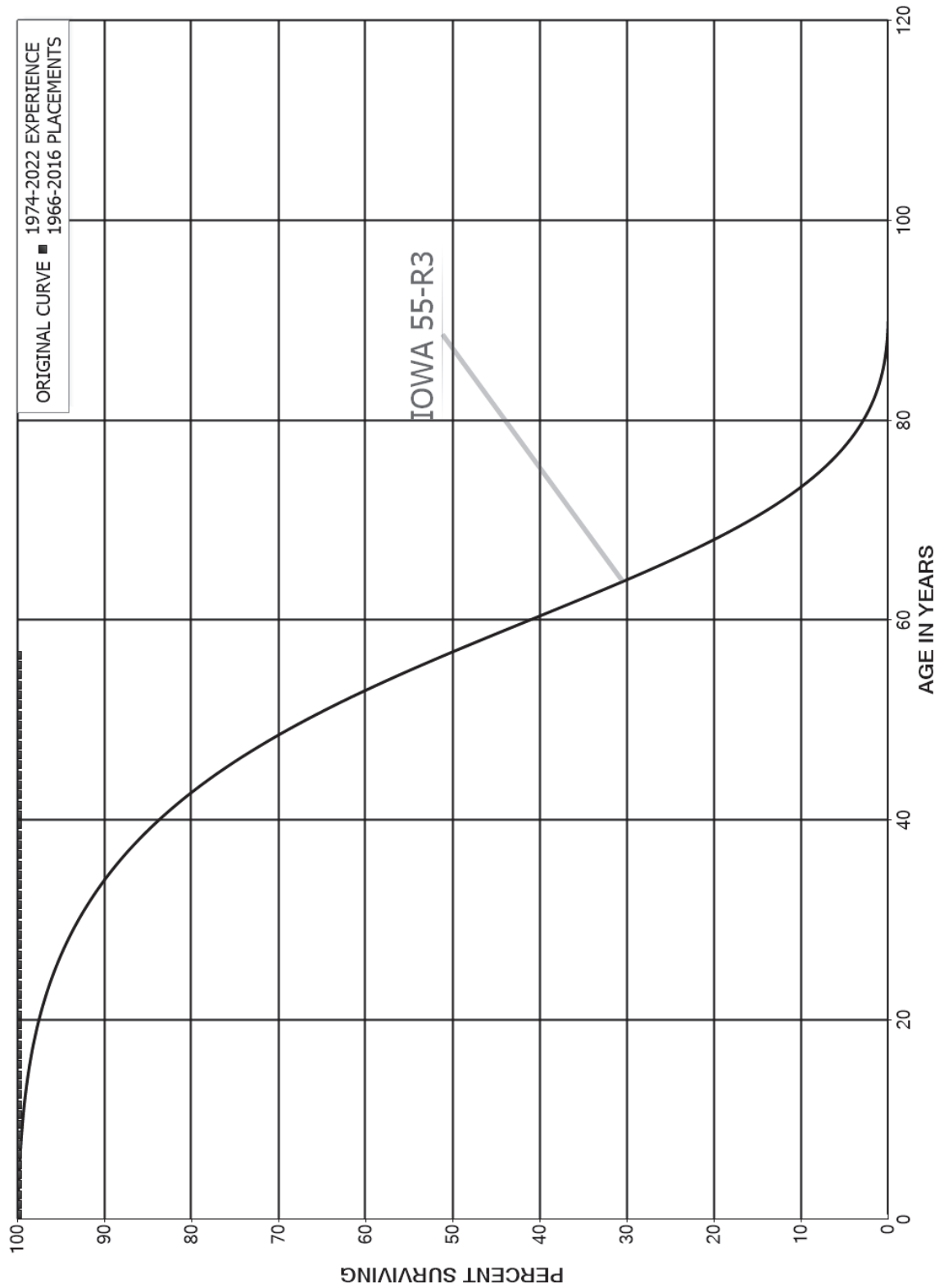
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1964-2009

EXPERIENCE BAND 1974-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,244,309		0.0000	1.0000	100.00
40.5	1,244,309		0.0000	1.0000	100.00
41.5	1,238,350		0.0000	1.0000	100.00
42.5	1,238,350		0.0000	1.0000	100.00
43.5	1,229,163		0.0000	1.0000	100.00
44.5	1,229,163		0.0000	1.0000	100.00
45.5	1,217,081		0.0000	1.0000	100.00
46.5	1,189,050		0.0000	1.0000	100.00
47.5	1,189,050		0.0000	1.0000	100.00
48.5	1,189,050		0.0000	1.0000	100.00
49.5	1,189,050		0.0000	1.0000	100.00
50.5	1,189,050		0.0000	1.0000	100.00
51.5	1,189,050		0.0000	1.0000	100.00
52.5	1,189,050		0.0000	1.0000	100.00
53.5	1,189,050		0.0000	1.0000	100.00
54.5	1,168,447		0.0000	1.0000	100.00
55.5	1,009,167		0.0000	1.0000	100.00
56.5	539,190		0.0000	1.0000	100.00
57.5	94,094		0.0000	1.0000	100.00
58.5					100.00

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 366.30 STRUCTURES AND IMPROVEMENTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 366.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1966-2016

EXPERIENCE BAND 1974-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,460,088		0.0000	1.0000	100.00
0.5	1,460,088		0.0000	1.0000	100.00
1.5	1,460,088		0.0000	1.0000	100.00
2.5	1,460,088		0.0000	1.0000	100.00
3.5	1,460,088		0.0000	1.0000	100.00
4.5	1,460,088		0.0000	1.0000	100.00
5.5	1,460,088		0.0000	1.0000	100.00
6.5	955,999		0.0000	1.0000	100.00
7.5	1,041,984		0.0000	1.0000	100.00
8.5	1,041,984		0.0000	1.0000	100.00
9.5	1,041,984		0.0000	1.0000	100.00
10.5	1,041,984		0.0000	1.0000	100.00
11.5	1,041,984		0.0000	1.0000	100.00
12.5	1,041,984		0.0000	1.0000	100.00
13.5	1,041,984		0.0000	1.0000	100.00
14.5	1,041,984		0.0000	1.0000	100.00
15.5	1,041,984		0.0000	1.0000	100.00
16.5	1,041,984		0.0000	1.0000	100.00
17.5	984,166		0.0000	1.0000	100.00
18.5	85,985		0.0000	1.0000	100.00
19.5	85,985		0.0000	1.0000	100.00
20.5	85,985		0.0000	1.0000	100.00
21.5	85,985		0.0000	1.0000	100.00
22.5	85,985		0.0000	1.0000	100.00
23.5	85,985		0.0000	1.0000	100.00
24.5	85,985		0.0000	1.0000	100.00
25.5	85,985		0.0000	1.0000	100.00
26.5	85,985		0.0000	1.0000	100.00
27.5	85,985		0.0000	1.0000	100.00
28.5	85,985		0.0000	1.0000	100.00
29.5	85,985		0.0000	1.0000	100.00
30.5	85,985		0.0000	1.0000	100.00
31.5	85,985		0.0000	1.0000	100.00
32.5	85,985		0.0000	1.0000	100.00
33.5	85,985		0.0000	1.0000	100.00
34.5	85,985		0.0000	1.0000	100.00
35.5	85,985		0.0000	1.0000	100.00
36.5	85,985		0.0000	1.0000	100.00
37.5	85,985		0.0000	1.0000	100.00
38.5	85,985		0.0000	1.0000	100.00

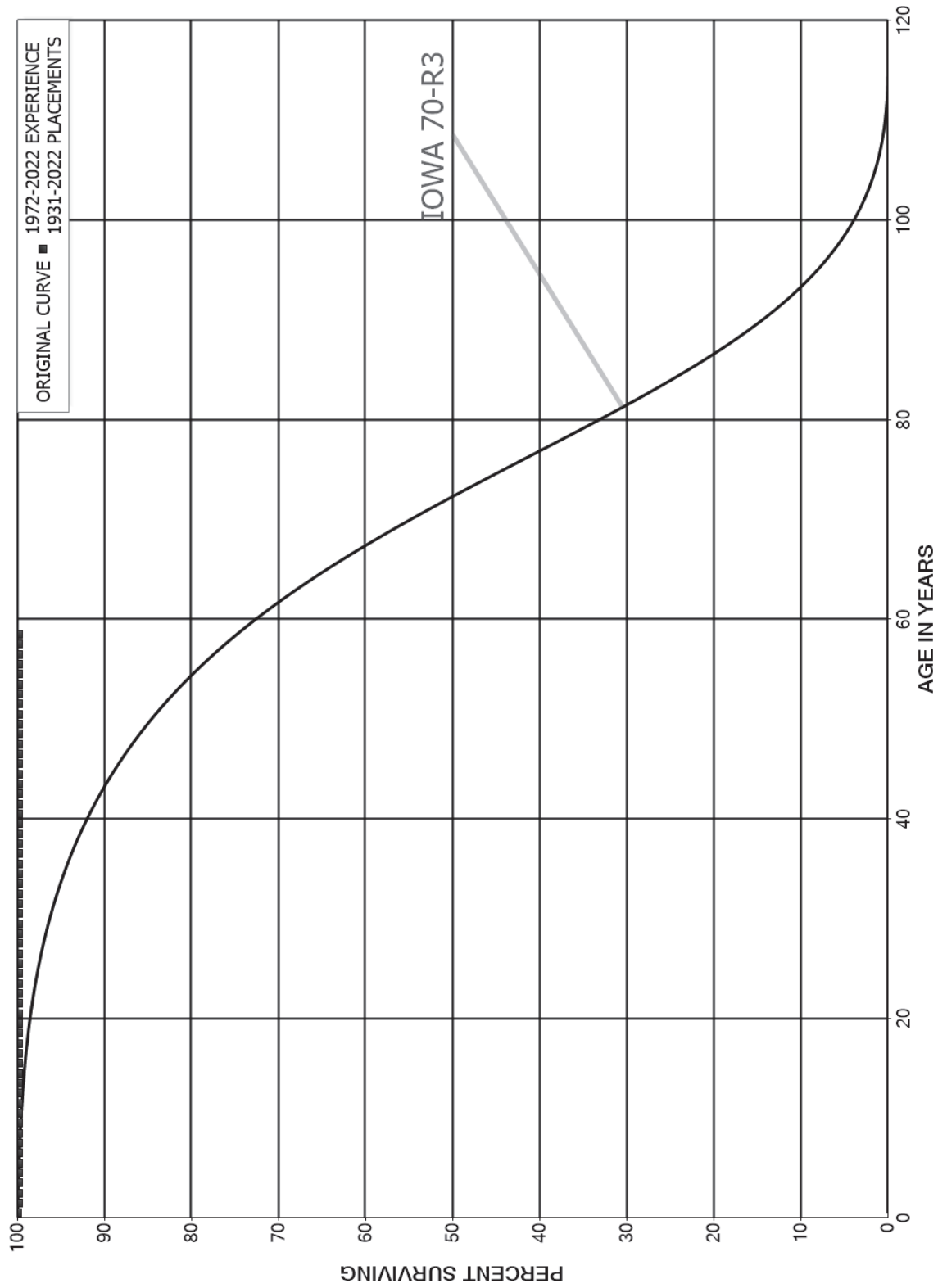
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 366.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1966-2016			EXPERIENCE BAND 1974-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	85,985		0.0000	1.0000	100.00
40.5	85,985		0.0000	1.0000	100.00
41.5	85,985		0.0000	1.0000	100.00
42.5	85,985		0.0000	1.0000	100.00
43.5	85,985		0.0000	1.0000	100.00
44.5	85,985		0.0000	1.0000	100.00
45.5	85,985		0.0000	1.0000	100.00
46.5	85,985		0.0000	1.0000	100.00
47.5	85,985		0.0000	1.0000	100.00
48.5	85,985		0.0000	1.0000	100.00
49.5	85,985		0.0000	1.0000	100.00
50.5	85,985		0.0000	1.0000	100.00
51.5	85,985		0.0000	1.0000	100.00
52.5	85,985		0.0000	1.0000	100.00
53.5	85,985		0.0000	1.0000	100.00
54.5	85,985		0.0000	1.0000	100.00
55.5	85,985		0.0000	1.0000	100.00
56.5					100.00

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNTS 367.00 THROUGH 367.26 MAINS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 367.00 THROUGH 367.26 MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1931-2022

EXPERIENCE BAND 1972-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	287,019,381		0.0000	1.0000	100.00
0.5	291,288,392	532,003	0.0018	0.9982	100.00
1.5	338,372,157		0.0000	1.0000	99.82
2.5	328,016,371		0.0000	1.0000	99.82
3.5	318,100,931	38,942	0.0001	0.9999	99.82
4.5	304,406,889		0.0000	1.0000	99.81
5.5	304,985,714		0.0000	1.0000	99.81
6.5	302,922,387		0.0000	1.0000	99.81
7.5	297,564,960	1,086	0.0000	1.0000	99.81
8.5	279,320,700		0.0000	1.0000	99.80
9.5	229,655,960	1,086	0.0000	1.0000	99.80
10.5	198,884,560	16,355	0.0001	0.9999	99.80
11.5	190,822,564		0.0000	1.0000	99.80
12.5	171,475,182		0.0000	1.0000	99.80
13.5	166,874,669		0.0000	1.0000	99.80
14.5	166,874,669		0.0000	1.0000	99.80
15.5	166,808,732	2,603	0.0000	1.0000	99.80
16.5	166,806,129		0.0000	1.0000	99.79
17.5	166,792,438	541	0.0000	1.0000	99.79
18.5	128,793,642		0.0000	1.0000	99.79
19.5	61,949,897		0.0000	1.0000	99.79
20.5	61,694,305	1,756	0.0000	1.0000	99.79
21.5	61,155,910		0.0000	1.0000	99.79
22.5	61,091,777		0.0000	1.0000	99.79
23.5	27,575,643		0.0000	1.0000	99.79
24.5	27,575,643		0.0000	1.0000	99.79
25.5	27,575,643	481	0.0000	1.0000	99.79
26.5	27,575,162		0.0000	1.0000	99.79
27.5	27,573,648		0.0000	1.0000	99.79
28.5	27,441,077	388	0.0000	1.0000	99.79
29.5	27,295,904		0.0000	1.0000	99.79
30.5	27,295,904		0.0000	1.0000	99.79
31.5	27,292,423		0.0000	1.0000	99.79
32.5	26,995,509		0.0000	1.0000	99.79
33.5	10,178,290		0.0000	1.0000	99.79
34.5	10,178,290		0.0000	1.0000	99.79
35.5	10,178,290		0.0000	1.0000	99.79
36.5	10,160,853		0.0000	1.0000	99.79
37.5	10,131,532		0.0000	1.0000	99.79
38.5	10,131,532		0.0000	1.0000	99.79

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 367.00 THROUGH 367.26 MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1931-2022

EXPERIENCE BAND 1972-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	10,131,532		0.0000	1.0000	99.79
40.5	9,969,318		0.0000	1.0000	99.79
41.5	9,458,671		0.0000	1.0000	99.79
42.5	9,424,544		0.0000	1.0000	99.79
43.5	9,424,544		0.0000	1.0000	99.79
44.5	9,411,932		0.0000	1.0000	99.79
45.5	9,406,964		0.0000	1.0000	99.79
46.5	8,179,539		0.0000	1.0000	99.79
47.5	8,179,539		0.0000	1.0000	99.79
48.5	8,179,539		0.0000	1.0000	99.79
49.5	8,179,539		0.0000	1.0000	99.79
50.5	8,160,658		0.0000	1.0000	99.79
51.5	8,160,658		0.0000	1.0000	99.79
52.5	8,161,199		0.0000	1.0000	99.79
53.5	8,144,175		0.0000	1.0000	99.79
54.5	8,139,304		0.0000	1.0000	99.79
55.5	8,041,218		0.0000	1.0000	99.79
56.5	4,791,489		0.0000	1.0000	99.79
57.5	632,284		0.0000	1.0000	99.79
58.5	541		0.0000	1.0000	99.79
59.5	541		0.0000	1.0000	99.79
60.5	541		0.0000	1.0000	99.79
61.5	541		0.0000	1.0000	99.79
62.5	541		0.0000	1.0000	99.79
63.5	541		0.0000	1.0000	99.79
64.5	541		0.0000	1.0000	99.79
65.5	541		0.0000	1.0000	99.79
66.5	541		0.0000	1.0000	99.79
67.5	541		0.0000	1.0000	99.79
68.5	541		0.0000	1.0000	99.79
69.5	541		0.0000	1.0000	99.79
70.5	541		0.0000	1.0000	99.79
71.5	541		0.0000	1.0000	99.79
72.5	541		0.0000	1.0000	99.79
73.5	541		0.0000	1.0000	99.79
74.5	541		0.0000	1.0000	99.79
75.5	541		0.0000	1.0000	99.79
76.5	541		0.0000	1.0000	99.79
77.5	541		0.0000	1.0000	99.79
78.5	541		0.0000	1.0000	99.79

NORTHWEST NATURAL GAS COMPANY

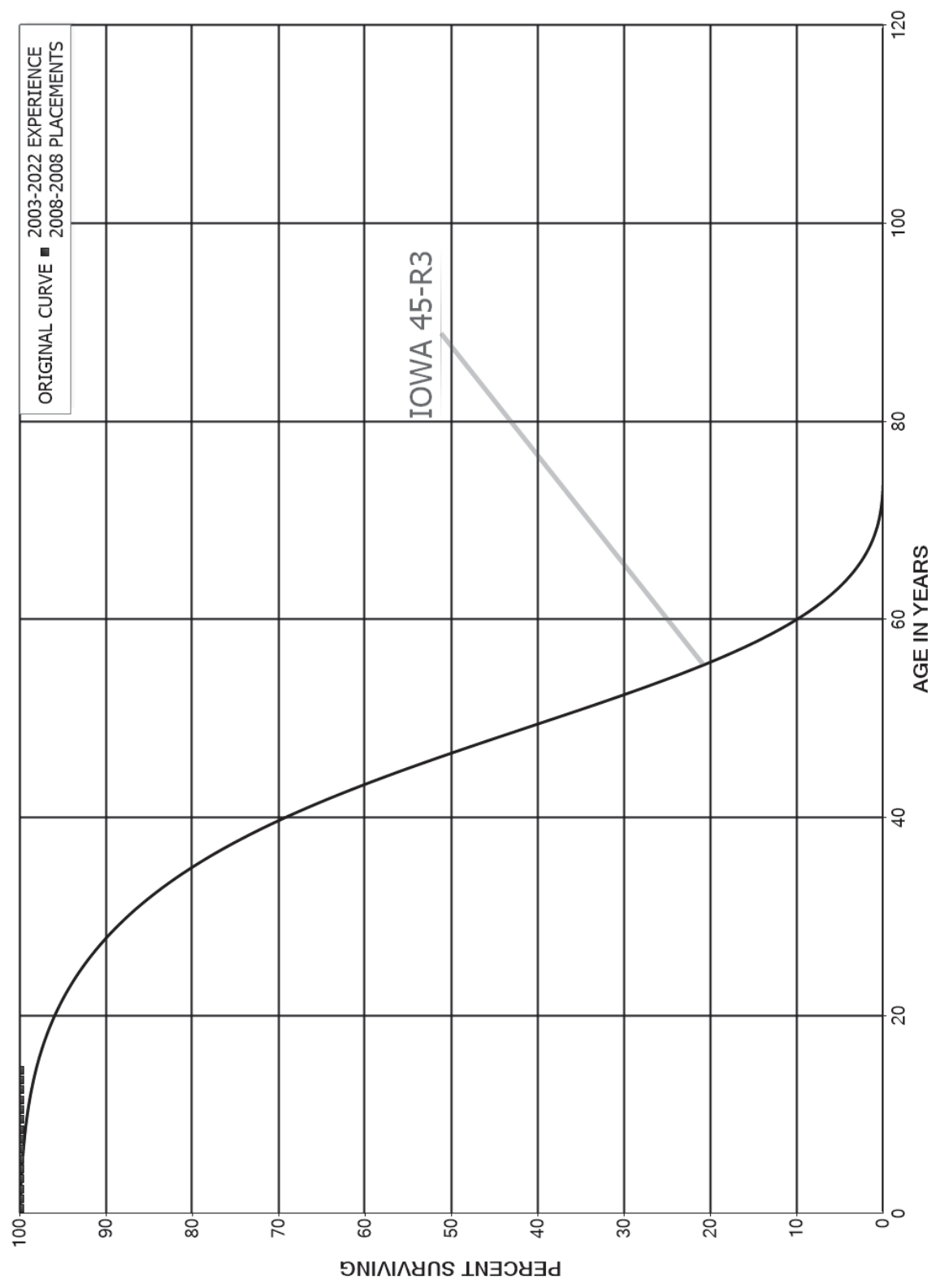
ACCOUNTS 367.00 THROUGH 367.26 MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1931-2022			EXPERIENCE BAND 1972-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	541		0.0000	1.0000	99.79
80.5	541		0.0000	1.0000	99.79
81.5	541		0.0000	1.0000	99.79
82.5	541		0.0000	1.0000	99.79
83.5	541		0.0000	1.0000	99.79
84.5	541		0.0000	1.0000	99.79
85.5	541		0.0000	1.0000	99.79
86.5	541		0.0000	1.0000	99.79
87.5	541		0.0000	1.0000	99.79
88.5	541		0.0000	1.0000	99.79
89.5	541		0.0000	1.0000	99.79
90.5	541		0.0000	1.0000	99.79
91.5					99.79



NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 368.00 COMPRESSOR STATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



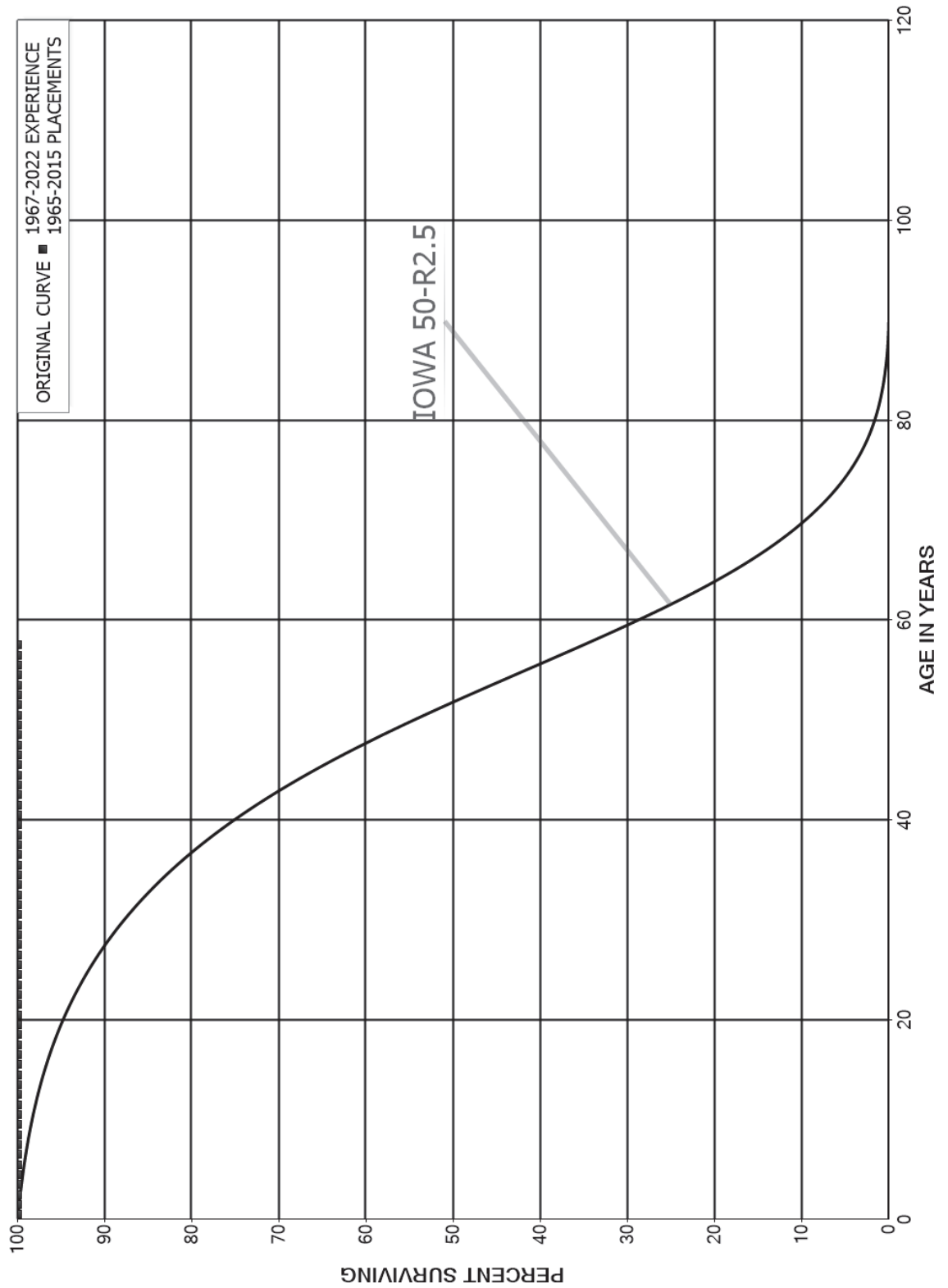
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 368.00 COMPRESSOR STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2008-2008			EXPERIENCE BAND 2003-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	7,723,454		0.0000	1.0000	100.00
0.5	7,723,454		0.0000	1.0000	100.00
1.5	7,723,454		0.0000	1.0000	100.00
2.5	7,723,454		0.0000	1.0000	100.00
3.5	7,723,454		0.0000	1.0000	100.00
4.5	7,723,454		0.0000	1.0000	100.00
5.5	7,723,454		0.0000	1.0000	100.00
6.5	7,723,454		0.0000	1.0000	100.00
7.5	7,723,454		0.0000	1.0000	100.00
8.5	7,723,454		0.0000	1.0000	100.00
9.5	7,723,454		0.0000	1.0000	100.00
10.5	7,723,454		0.0000	1.0000	100.00
11.5	7,723,454		0.0000	1.0000	100.00
12.5	7,723,454		0.0000	1.0000	100.00
13.5	7,723,454		0.0000	1.0000	100.00
14.5					100.00

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 369.00 MEASURING AND REGULATING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 369.00 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1965-2015

EXPERIENCE BAND 1967-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,811,857		0.0000	1.0000	100.00
0.5	3,838,490	585	0.0002	0.9998	100.00
1.5	4,082,641		0.0000	1.0000	99.98
2.5	3,989,184		0.0000	1.0000	99.98
3.5	3,982,729		0.0000	1.0000	99.98
4.5	3,982,729		0.0000	1.0000	99.98
5.5	3,982,729		0.0000	1.0000	99.98
6.5	3,982,729		0.0000	1.0000	99.98
7.5	3,875,501	638	0.0002	0.9998	99.98
8.5	3,768,413		0.0000	1.0000	99.97
9.5	575,963		0.0000	1.0000	99.97
10.5	542,079		0.0000	1.0000	99.97
11.5	542,079		0.0000	1.0000	99.97
12.5	542,079		0.0000	1.0000	99.97
13.5	542,079		0.0000	1.0000	99.97
14.5	542,079		0.0000	1.0000	99.97
15.5	542,079		0.0000	1.0000	99.97
16.5	408,765		0.0000	1.0000	99.97
17.5	408,765		0.0000	1.0000	99.97
18.5	396,697		0.0000	1.0000	99.97
19.5	207,616		0.0000	1.0000	99.97
20.5	195,625		0.0000	1.0000	99.97
21.5	195,625		0.0000	1.0000	99.97
22.5	195,625		0.0000	1.0000	99.97
23.5	195,625		0.0000	1.0000	99.97
24.5	195,625		0.0000	1.0000	99.97
25.5	195,625		0.0000	1.0000	99.97
26.5	195,625		0.0000	1.0000	99.97
27.5	195,625		0.0000	1.0000	99.97
28.5	195,625		0.0000	1.0000	99.97
29.5	195,625		0.0000	1.0000	99.97
30.5	118,019		0.0000	1.0000	99.97
31.5	118,019		0.0000	1.0000	99.97
32.5	118,019		0.0000	1.0000	99.97
33.5	118,019		0.0000	1.0000	99.97
34.5	118,019		0.0000	1.0000	99.97
35.5	91,081		0.0000	1.0000	99.97
36.5	91,081		0.0000	1.0000	99.97
37.5	91,081		0.0000	1.0000	99.97
38.5	91,081		0.0000	1.0000	99.97

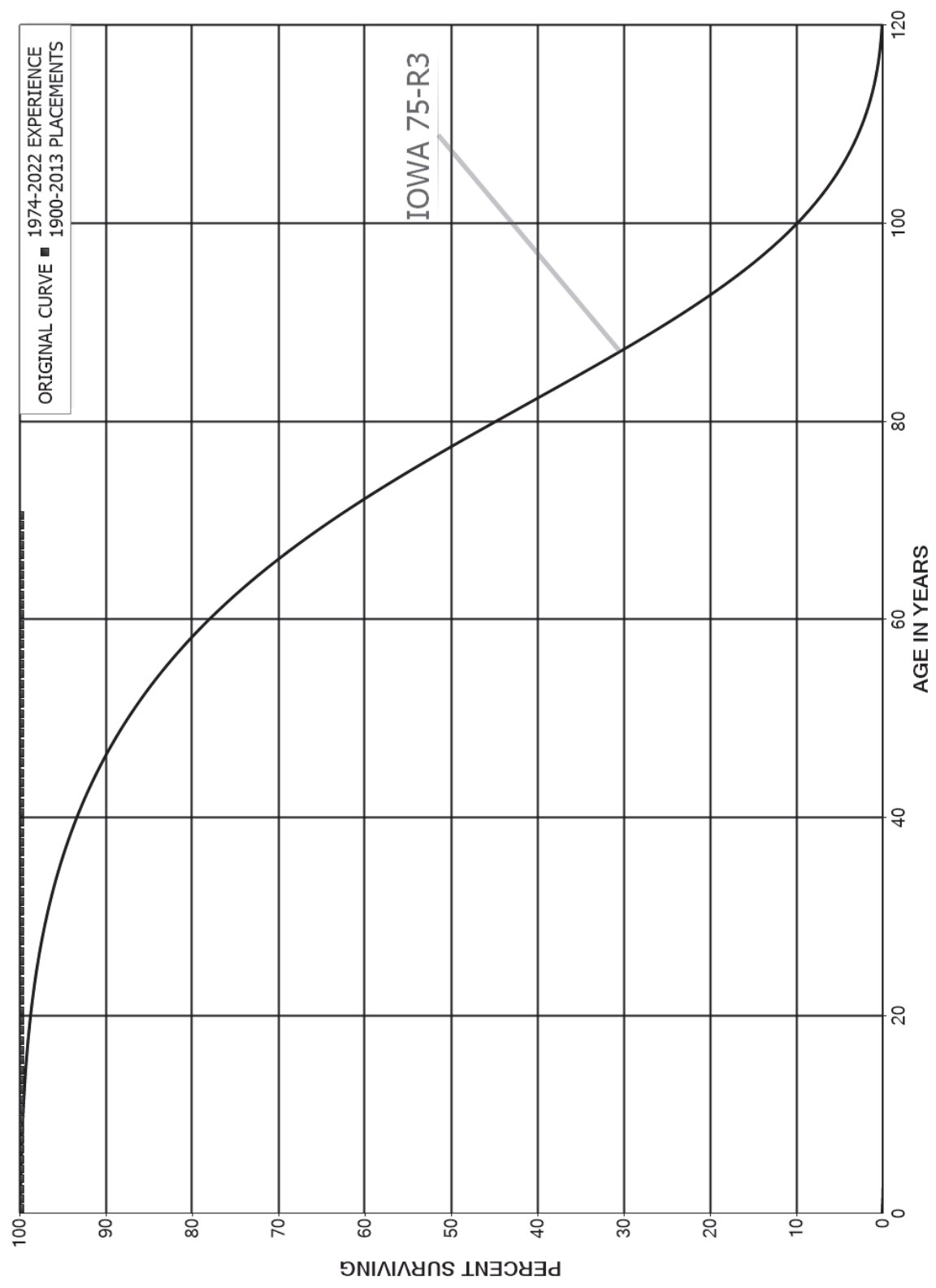
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 369.00 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1965-2015			EXPERIENCE BAND 1967-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	91,081		0.0000	1.0000	99.97
40.5	91,081		0.0000	1.0000	99.97
41.5	91,081		0.0000	1.0000	99.97
42.5	91,081		0.0000	1.0000	99.97
43.5	91,081		0.0000	1.0000	99.97
44.5	91,081		0.0000	1.0000	99.97
45.5	45,638		0.0000	1.0000	99.97
46.5	45,638		0.0000	1.0000	99.97
47.5	45,638		0.0000	1.0000	99.97
48.5	45,638		0.0000	1.0000	99.97
49.5	45,638		0.0000	1.0000	99.97
50.5	45,638		0.0000	1.0000	99.97
51.5	45,638		0.0000	1.0000	99.97
52.5	45,638		0.0000	1.0000	99.97
53.5	45,638		0.0000	1.0000	99.97
54.5	45,638		0.0000	1.0000	99.97
55.5	40,610		0.0000	1.0000	99.97
56.5	14,697		0.0000	1.0000	99.97
57.5					99.97

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 374.20 LAND RIGHTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 374.20 LAND RIGHTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1900-2013

EXPERIENCE BAND 1974-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,657,830		0.0000	1.0000	100.00
0.5	1,657,830		0.0000	1.0000	100.00
1.5	1,638,506		0.0000	1.0000	100.00
2.5	1,650,827		0.0000	1.0000	100.00
3.5	1,650,827		0.0000	1.0000	100.00
4.5	1,650,827		0.0000	1.0000	100.00
5.5	1,660,496		0.0000	1.0000	100.00
6.5	1,660,496		0.0000	1.0000	100.00
7.5	1,660,496		0.0000	1.0000	100.00
8.5	1,660,496		0.0000	1.0000	100.00
9.5	1,204,705		0.0000	1.0000	100.00
10.5	1,205,455		0.0000	1.0000	100.00
11.5	1,208,880		0.0000	1.0000	100.00
12.5	1,185,830		0.0000	1.0000	100.00
13.5	1,183,628		0.0000	1.0000	100.00
14.5	1,183,628		0.0000	1.0000	100.00
15.5	1,183,828		0.0000	1.0000	100.00
16.5	1,183,828		0.0000	1.0000	100.00
17.5	1,183,828		0.0000	1.0000	100.00
18.5	1,194,968		0.0000	1.0000	100.00
19.5	893,294		0.0000	1.0000	100.00
20.5	770,286		0.0000	1.0000	100.00
21.5	717,371		0.0000	1.0000	100.00
22.5	702,613		0.0000	1.0000	100.00
23.5	680,493		0.0000	1.0000	100.00
24.5	665,368		0.0000	1.0000	100.00
25.5	629,536		0.0000	1.0000	100.00
26.5	611,427		0.0000	1.0000	100.00
27.5	498,713		0.0000	1.0000	100.00
28.5	455,477		0.0000	1.0000	100.00
29.5	425,600		0.0000	1.0000	100.00
30.5	360,634		0.0000	1.0000	100.00
31.5	175,569		0.0000	1.0000	100.00
32.5	165,563		0.0000	1.0000	100.00
33.5	90,569		0.0000	1.0000	100.00
34.5	86,667		0.0000	1.0000	100.00
35.5	76,934		0.0000	1.0000	100.00
36.5	73,182		0.0000	1.0000	100.00
37.5	68,403		0.0000	1.0000	100.00
38.5	67,639		0.0000	1.0000	100.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 374.20 LAND RIGHTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2013

EXPERIENCE BAND 1974-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	67,387		0.0000	1.0000	100.00
40.5	66,348		0.0000	1.0000	100.00
41.5	57,628		0.0000	1.0000	100.00
42.5	56,063		0.0000	1.0000	100.00
43.5	54,474		0.0000	1.0000	100.00
44.5	47,629		0.0000	1.0000	100.00
45.5	37,352		0.0000	1.0000	100.00
46.5	36,548		0.0000	1.0000	100.00
47.5	32,908		0.0000	1.0000	100.00
48.5	29,604		0.0000	1.0000	100.00
49.5	29,604		0.0000	1.0000	100.00
50.5	29,604		0.0000	1.0000	100.00
51.5	27,097		0.0000	1.0000	100.00
52.5	27,097		0.0000	1.0000	100.00
53.5	27,097		0.0000	1.0000	100.00
54.5	17,428		0.0000	1.0000	100.00
55.5	17,428		0.0000	1.0000	100.00
56.5	17,428		0.0000	1.0000	100.00
57.5	17,428		0.0000	1.0000	100.00
58.5	16,678		0.0000	1.0000	100.00
59.5	13,253		0.0000	1.0000	100.00
60.5	13,153		0.0000	1.0000	100.00
61.5	13,153		0.0000	1.0000	100.00
62.5	12,953		0.0000	1.0000	100.00
63.5	12,953		0.0000	1.0000	100.00
64.5	12,953		0.0000	1.0000	100.00
65.5	12,953		0.0000	1.0000	100.00
66.5	1,813		0.0000	1.0000	100.00
67.5	1,813		0.0000	1.0000	100.00
68.5	1,813		0.0000	1.0000	100.00
69.5	1,813		0.0000	1.0000	100.00
70.5					100.00
71.5					
72.5					
73.5	208,257		0.0000		
74.5	208,257		0.0000		
75.5	208,257		0.0000		
76.5	208,257		0.0000		
77.5	208,257		0.0000		
78.5	208,257		0.0000		



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 374.20 LAND RIGHTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2013

EXPERIENCE BAND 1974-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	208,257		0.0000		
80.5	208,257		0.0000		
81.5	208,257		0.0000		
82.5	208,257		0.0000		
83.5	208,257		0.0000		
84.5	208,257		0.0000		
85.5	208,257		0.0000		
86.5	208,257		0.0000		
87.5	208,257		0.0000		
88.5	208,257		0.0000		
89.5	208,257		0.0000		
90.5	208,257		0.0000		
91.5	208,257		0.0000		
92.5	208,257		0.0000		
93.5	208,257		0.0000		
94.5	208,257		0.0000		
95.5	208,257		0.0000		
96.5	208,257		0.0000		
97.5	208,257		0.0000		
98.5	208,257		0.0000		
99.5	208,257		0.0000		
100.5	208,257		0.0000		
101.5	208,257		0.0000		
102.5	208,257		0.0000		
103.5	208,257		0.0000		
104.5	208,257		0.0000		
105.5	208,257		0.0000		
106.5	208,257		0.0000		
107.5	208,257		0.0000		
108.5	208,257		0.0000		
109.5	208,257		0.0000		
110.5	208,257		0.0000		
111.5	208,257		0.0000		
112.5	208,257		0.0000		
113.5	208,257		0.0000		
114.5	208,257		0.0000		
115.5	208,257		0.0000		
116.5	208,257		0.0000		
117.5	208,257		0.0000		
118.5	208,257		0.0000		

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 374.20 LAND RIGHTS

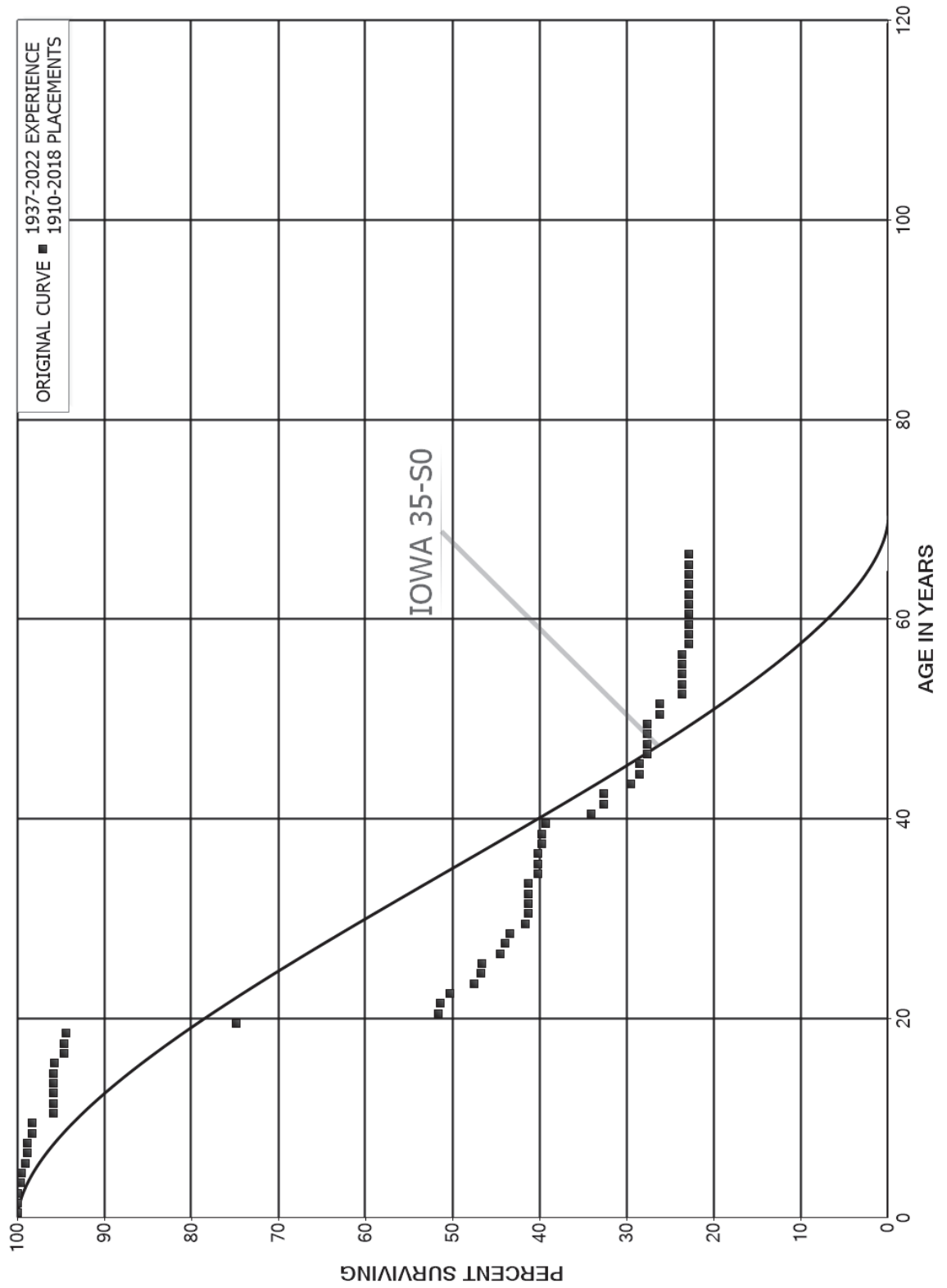
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2013

EXPERIENCE BAND 1974-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	208,257		0.0000		
120.5	208,257		0.0000		
121.5	208,257		0.0000		
122.5					

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 375.00 STRUCTURES AND IMPROVEMENTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 375.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2018

EXPERIENCE BAND 1937-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,548,149		0.0000	1.0000	100.00
0.5	1,548,149	119	0.0001	0.9999	100.00
1.5	1,548,149	582	0.0004	0.9996	99.99
2.5	1,548,149	5,004	0.0032	0.9968	99.95
3.5	1,548,149	2,755	0.0018	0.9982	99.63
4.5	1,464,971	5,302	0.0036	0.9964	99.45
5.5	1,464,971	3,403	0.0023	0.9977	99.09
6.5	108,808		0.0000	1.0000	98.86
7.5	108,808	611	0.0056	0.9944	98.86
8.5	108,808		0.0000	1.0000	98.31
9.5	110,952	2,752	0.0248	0.9752	98.31
10.5	110,952		0.0000	1.0000	95.87
11.5	110,952		0.0000	1.0000	95.87
12.5	110,952		0.0000	1.0000	95.87
13.5	110,952		0.0000	1.0000	95.87
14.5	110,952	170	0.0015	0.9985	95.87
15.5	99,983	1,206	0.0121	0.9879	95.72
16.5	99,983		0.0000	1.0000	94.57
17.5	99,983	167	0.0017	0.9983	94.57
18.5	99,983	20,760	0.2076	0.7924	94.41
19.5	99,553	30,809	0.3095	0.6905	74.81
20.5	99,553	506	0.0051	0.9949	51.66
21.5	99,553	2,221	0.0223	0.9777	51.39
22.5	99,553	5,411	0.0544	0.9456	50.25
23.5	99,403	1,664	0.0167	0.9833	47.52
24.5	99,403	118	0.0012	0.9988	46.72
25.5	99,403	4,717	0.0475	0.9525	46.67
26.5	99,403	1,209	0.0122	0.9878	44.45
27.5	99,403	1,250	0.0126	0.9874	43.91
28.5	99,403	4,092	0.0412	0.9588	43.36
29.5	93,680	588	0.0063	0.9937	41.57
30.5	93,092		0.0000	1.0000	41.31
31.5	93,092		0.0000	1.0000	41.31
32.5	67,622	23	0.0003	0.9997	41.31
33.5	67,622	1,870	0.0277	0.9723	41.30
34.5	65,874		0.0000	1.0000	40.16
35.5	65,874		0.0000	1.0000	40.16
36.5	65,874	639	0.0097	0.9903	40.16
37.5	65,874	150	0.0023	0.9977	39.77
38.5	65,874	588	0.0089	0.9911	39.68

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 375.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2018			EXPERIENCE BAND 1937-2022			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	65,874	8,863	0.1345	0.8655	39.32	
40.5	57,179	2,300	0.0402	0.9598	34.03	
41.5	54,879	167	0.0030	0.9970	32.66	
42.5	54,879	5,090	0.0927	0.9073	32.56	
43.5	54,757	1,928	0.0352	0.9648	29.54	
44.5	52,840		0.0000	1.0000	28.50	
45.5	52,840	1,623	0.0307	0.9693	28.50	
46.5	52,840	107	0.0020	0.9980	27.63	
47.5	52,840	4	0.0001	0.9999	27.57	
48.5	52,840		0.0000	1.0000	27.57	
49.5	52,840	2,607	0.0493	0.9507	27.57	
50.5	52,840		0.0000	1.0000	26.21	
51.5	58,646	5,806	0.0990	0.9010	26.21	
52.5	52,840		0.0000	1.0000	23.61	
53.5	52,840		0.0000	1.0000	23.61	
54.5	52,840		0.0000	1.0000	23.61	
55.5	52,840		0.0000	1.0000	23.61	
56.5	52,840	1,625	0.0308	0.9692	23.61	
57.5	52,542		0.0000	1.0000	22.89	
58.5	52,542		0.0000	1.0000	22.89	
59.5	52,542		0.0000	1.0000	22.89	
60.5	49,800		0.0000	1.0000	22.89	
61.5	49,074		0.0000	1.0000	22.89	
62.5	42,091		0.0000	1.0000	22.89	
63.5	41,220		0.0000	1.0000	22.89	
64.5	37,913		0.0000	1.0000	22.89	
65.5	37,913		0.0000	1.0000	22.89	
66.5	4,985		0.0000	1.0000	22.89	
67.5	4,985		0.0000	1.0000	22.89	
68.5	4,985		0.0000	1.0000	22.89	
69.5	4,971		0.0000	1.0000	22.89	
70.5	4,971		0.0000	1.0000	22.89	
71.5	4,971		0.0000	1.0000	22.89	
72.5	4,971		0.0000	1.0000	22.89	
73.5	4,971		0.0000	1.0000	22.89	
74.5	4,971		0.0000	1.0000	22.89	
75.5	4,971		0.0000	1.0000	22.89	
76.5	4,971		0.0000	1.0000	22.89	
77.5	4,971		0.0000	1.0000	22.89	
78.5	4,971		0.0000	1.0000	22.89	

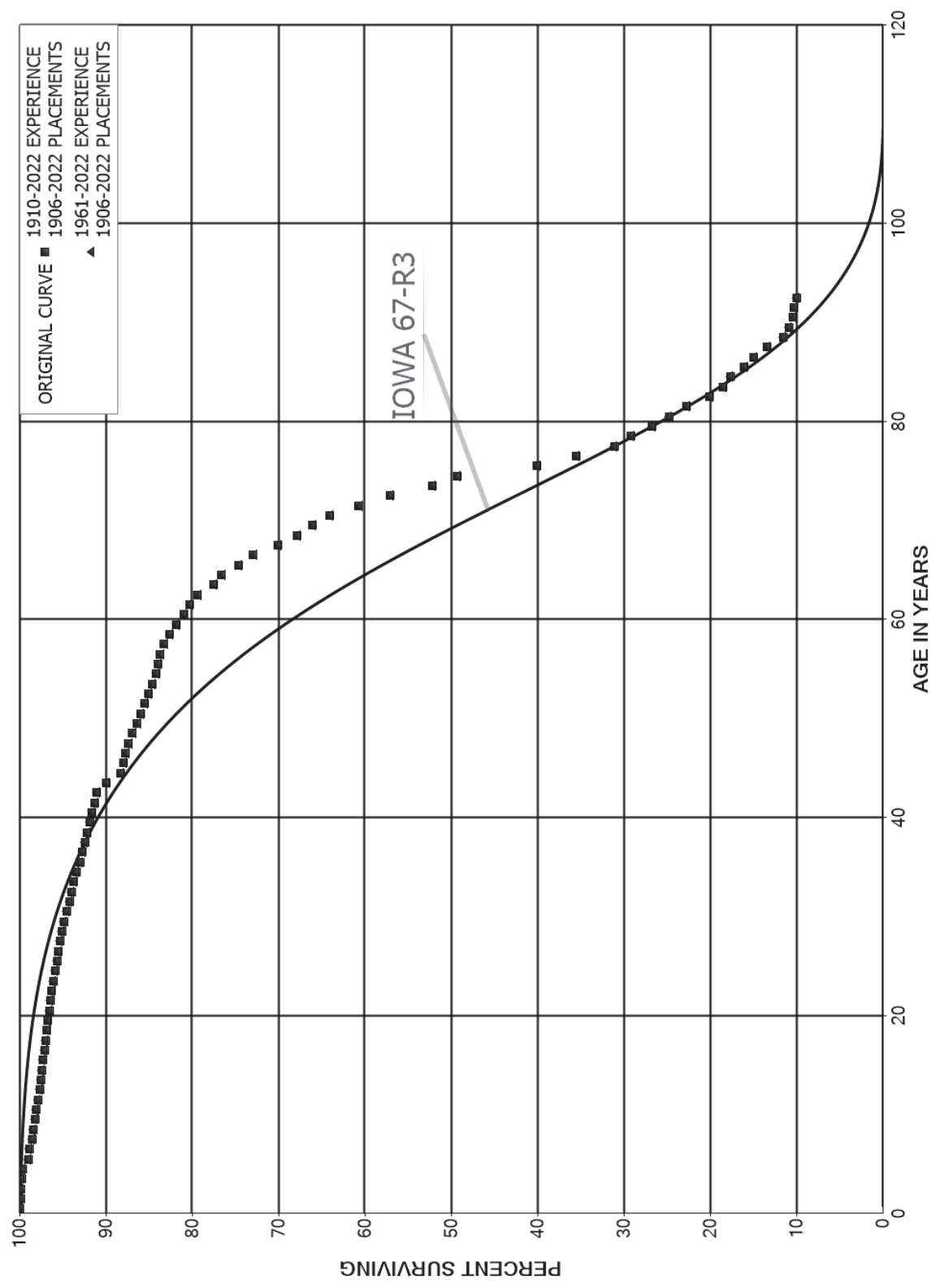
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 375.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2018			EXPERIENCE BAND 1937-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	4,971		0.0000	1.0000	22.89
80.5	4,971		0.0000	1.0000	22.89
81.5	4,971		0.0000	1.0000	22.89
82.5	4,971		0.0000	1.0000	22.89
83.5	4,971		0.0000	1.0000	22.89
84.5	4,971		0.0000	1.0000	22.89
85.5	4,971		0.0000	1.0000	22.89
86.5	4,971		0.0000	1.0000	22.89
87.5	4,971		0.0000	1.0000	22.89
88.5	4,971		0.0000	1.0000	22.89
89.5	4,971		0.0000	1.0000	22.89
90.5	4,971		0.0000	1.0000	22.89
91.5	4,971		0.0000	1.0000	22.89
92.5	4,971		0.0000	1.0000	22.89
93.5	4,971		0.0000	1.0000	22.89
94.5	4,971		0.0000	1.0000	22.89
95.5	2,827		0.0000	1.0000	22.89
96.5	2,827		0.0000	1.0000	22.89
97.5	2,827		0.0000	1.0000	22.89
98.5	2,827		0.0000	1.0000	22.89
99.5	2,827		0.0000	1.0000	22.89
100.5	2,827		0.0000	1.0000	22.89
101.5	2,827		0.0000	1.0000	22.89
102.5	2,827		0.0000	1.0000	22.89
103.5	2,827		0.0000	1.0000	22.89
104.5	2,827		0.0000	1.0000	22.89
105.5	2,827		0.0000	1.0000	22.89
106.5	2,827		0.0000	1.0000	22.89
107.5	2,827		0.0000	1.0000	22.89
108.5	2,827		0.0000	1.0000	22.89
109.5					22.89

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNTS 376.11 AND 376.12 MAINS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 376.11 AND 376.12 MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1906-2022

EXPERIENCE BAND 1910-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,508,616,614	464,552	0.0003	0.9997	100.00
0.5	1,434,170,209	1,223,485	0.0009	0.9991	99.97
1.5	1,387,528,085	1,055,291	0.0008	0.9992	99.88
2.5	1,316,236,590	1,261,170	0.0010	0.9990	99.81
3.5	1,256,895,489	1,479,978	0.0012	0.9988	99.71
4.5	1,194,714,577	7,295,018	0.0061	0.9939	99.59
5.5	1,148,461,605	1,571,442	0.0014	0.9986	98.99
6.5	1,106,445,926	4,140,131	0.0037	0.9963	98.85
7.5	1,068,139,863	1,373,460	0.0013	0.9987	98.48
8.5	1,030,817,447	1,449,815	0.0014	0.9986	98.35
9.5	990,629,730	1,865,006	0.0019	0.9981	98.22
10.5	953,750,926	1,912,878	0.0020	0.9980	98.03
11.5	929,772,730	1,644,232	0.0018	0.9982	97.83
12.5	907,077,126	1,255,821	0.0014	0.9986	97.66
13.5	886,759,410	1,285,128	0.0014	0.9986	97.53
14.5	856,637,639	976,397	0.0011	0.9989	97.39
15.5	820,092,847	1,488,090	0.0018	0.9982	97.27
16.5	782,823,143	1,371,895	0.0018	0.9982	97.10
17.5	744,197,097	1,017,820	0.0014	0.9986	96.93
18.5	708,548,393	874,847	0.0012	0.9988	96.80
19.5	660,555,333	1,023,147	0.0015	0.9985	96.68
20.5	629,084,633	855,878	0.0014	0.9986	96.53
21.5	600,818,516	993,959	0.0017	0.9983	96.39
22.5	568,518,252	1,165,198	0.0020	0.9980	96.24
23.5	538,017,442	1,053,988	0.0020	0.9980	96.04
24.5	506,419,781	1,088,951	0.0022	0.9978	95.85
25.5	469,130,714	839,343	0.0018	0.9982	95.64
26.5	432,987,178	902,448	0.0021	0.9979	95.47
27.5	402,511,170	831,090	0.0021	0.9979	95.27
28.5	371,661,350	761,930	0.0021	0.9979	95.08
29.5	342,085,177	1,278,561	0.0037	0.9963	94.88
30.5	314,754,087	1,019,653	0.0032	0.9968	94.53
31.5	291,481,433	832,748	0.0029	0.9971	94.22
32.5	273,699,815	681,003	0.0025	0.9975	93.95
33.5	255,802,305	761,395	0.0030	0.9970	93.72
34.5	240,200,723	1,128,018	0.0047	0.9953	93.44
35.5	226,220,292	707,258	0.0031	0.9969	93.00
36.5	209,809,221	589,746	0.0028	0.9972	92.71
37.5	193,203,789	527,437	0.0027	0.9973	92.45
38.5	175,587,200	591,042	0.0034	0.9966	92.20



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 376.11 AND 376.12 MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2022

EXPERIENCE BAND 1910-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	163,520,045	530,107	0.0032	0.9968	91.89
40.5	151,754,092	505,980	0.0033	0.9967	91.59
41.5	138,960,094	376,228	0.0027	0.9973	91.28
42.5	127,054,323	1,549,950	0.0122	0.9878	91.04
43.5	114,475,502	2,120,145	0.0185	0.9815	89.93
44.5	103,516,518	301,124	0.0029	0.9971	88.26
45.5	97,799,607	365,782	0.0037	0.9963	88.00
46.5	92,562,066	343,747	0.0037	0.9963	87.67
47.5	87,782,271	421,547	0.0048	0.9952	87.35
48.5	81,837,152	537,597	0.0066	0.9934	86.93
49.5	75,389,683	328,431	0.0044	0.9956	86.36
50.5	70,120,739	344,260	0.0049	0.9951	85.98
51.5	64,236,972	364,098	0.0057	0.9943	85.56
52.5	59,086,277	303,588	0.0051	0.9949	85.07
53.5	53,486,182	258,448	0.0048	0.9952	84.64
54.5	47,825,078	138,332	0.0029	0.9971	84.23
55.5	42,992,257	156,625	0.0036	0.9964	83.98
56.5	36,453,676	182,307	0.0050	0.9950	83.68
57.5	30,801,792	226,324	0.0073	0.9927	83.26
58.5	25,012,158	240,265	0.0096	0.9904	82.65
59.5	20,244,402	218,697	0.0108	0.9892	81.85
60.5	18,779,675	156,493	0.0083	0.9917	80.97
61.5	15,305,825	174,141	0.0114	0.9886	80.30
62.5	11,740,391	272,083	0.0232	0.9768	79.38
63.5	9,407,915	115,500	0.0123	0.9877	77.54
64.5	7,392,481	189,928	0.0257	0.9743	76.59
65.5	6,070,389	138,582	0.0228	0.9772	74.62
66.5	3,710,446	142,533	0.0384	0.9616	72.92
67.5	3,472,660	111,159	0.0320	0.9680	70.12
68.5	3,333,945	89,931	0.0270	0.9730	67.87
69.5	3,219,691	95,887	0.0298	0.9702	66.04
70.5	3,078,877	163,508	0.0531	0.9469	64.08
71.5	2,893,833	170,852	0.0590	0.9410	60.67
72.5	2,704,977	232,397	0.0859	0.9141	57.09
73.5	2,453,105	136,254	0.0555	0.9445	52.19
74.5	2,285,103	427,449	0.1871	0.8129	49.29
75.5	1,707,702	194,340	0.1138	0.8862	40.07
76.5	1,480,494	183,626	0.1240	0.8760	35.51
77.5	1,281,663	79,645	0.0621	0.9379	31.10
78.5	1,208,968	101,880	0.0843	0.9157	29.17

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 376.11 AND 376.12 MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2022			EXPERIENCE BAND 1910-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,106,596	80,711	0.0729	0.9271	26.71
80.5	1,014,007	85,060	0.0839	0.9161	24.76
81.5	923,844	108,546	0.1175	0.8825	22.69
82.5	786,271	61,510	0.0782	0.9218	20.02
83.5	718,007	32,179	0.0448	0.9552	18.46
84.5	687,305	62,266	0.0906	0.9094	17.63
85.5	602,882	42,757	0.0709	0.9291	16.03
86.5	555,828	57,255	0.1030	0.8970	14.89
87.5	481,138	66,475	0.1382	0.8618	13.36
88.5	404,180	22,665	0.0561	0.9439	11.51
89.5	381,209	18,140	0.0476	0.9524	10.87
90.5	364,667	3,707	0.0102	0.9898	10.35
91.5	336,605	10,887	0.0323	0.9677	10.25
92.5	266,554	768	0.0029	0.9971	9.91
93.5	278,387	306	0.0011	0.9989	9.89
94.5	259,964	511	0.0020	0.9980	9.88
95.5	246,335	252	0.0010	0.9990	9.86
96.5	217,484	460	0.0021	0.9979	9.85
97.5	188,590	3,122	0.0166	0.9834	9.82
98.5	179,814	4,135	0.0230	0.9770	9.66
99.5	157,019	913	0.0058	0.9942	9.44
100.5	119,032	4,783	0.0402	0.9598	9.39
101.5	98,112	5,719	0.0583	0.9417	9.01
102.5	85,763	4,399	0.0513	0.9487	8.48
103.5	79,101	1,475	0.0186	0.9814	8.05
104.5	75,228	1,580	0.0210	0.9790	7.90
105.5	71,951	1,018	0.0141	0.9859	7.73
106.5	60,708	170	0.0028	0.9972	7.62
107.5	56,397		0.0000	1.0000	7.60
108.5	58,625		0.0000	1.0000	7.60
109.5	37,145	331	0.0089	0.9911	7.60
110.5	36,708	946	0.0258	0.9742	7.53
111.5	35,621		0.0000	1.0000	7.34
112.5	15,210		0.0000	1.0000	7.34
113.5	38		0.0000	1.0000	7.34
114.5	38		0.0000	1.0000	7.34
115.5	38		0.0000	1.0000	7.34
116.5					7.34

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 376.11 AND 376.12 MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1906-2022

EXPERIENCE BAND 1961-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,484,362,926	464,552	0.0003	0.9997	100.00
0.5	1,414,170,582	1,223,485	0.0009	0.9991	99.97
1.5	1,370,645,513	1,055,291	0.0008	0.9992	99.88
2.5	1,302,619,934	1,261,170	0.0010	0.9990	99.81
3.5	1,245,625,857	1,479,978	0.0012	0.9988	99.71
4.5	1,187,700,702	7,295,018	0.0061	0.9939	99.59
5.5	1,141,719,380	1,571,442	0.0014	0.9986	98.98
6.5	1,099,879,212	4,140,131	0.0038	0.9962	98.84
7.5	1,061,789,205	1,373,460	0.0013	0.9987	98.47
8.5	1,024,708,215	1,449,815	0.0014	0.9986	98.34
9.5	984,665,779	1,865,006	0.0019	0.9981	98.20
10.5	947,898,693	1,912,878	0.0020	0.9980	98.02
11.5	924,009,488	1,644,232	0.0018	0.9982	97.82
12.5	901,456,676	1,255,821	0.0014	0.9986	97.65
13.5	881,503,848	1,285,128	0.0015	0.9985	97.51
14.5	851,497,954	976,397	0.0011	0.9989	97.37
15.5	814,984,686	1,487,865	0.0018	0.9982	97.26
16.5	777,751,887	1,371,895	0.0018	0.9982	97.08
17.5	739,154,109	1,017,820	0.0014	0.9986	96.91
18.5	703,526,017	874,847	0.0012	0.9988	96.77
19.5	655,566,675	1,023,147	0.0016	0.9984	96.65
20.5	624,124,308	855,878	0.0014	0.9986	96.50
21.5	595,887,717	993,959	0.0017	0.9983	96.37
22.5	563,621,779	1,165,198	0.0021	0.9979	96.21
23.5	533,149,676	1,053,988	0.0020	0.9980	96.01
24.5	501,573,335	1,088,951	0.0022	0.9978	95.82
25.5	464,301,985	839,343	0.0018	0.9982	95.61
26.5	428,201,372	902,448	0.0021	0.9979	95.44
27.5	397,734,476	831,090	0.0021	0.9979	95.24
28.5	366,962,188	761,930	0.0021	0.9979	95.04
29.5	337,528,294	1,278,561	0.0038	0.9962	94.84
30.5	310,332,970	1,019,653	0.0033	0.9967	94.48
31.5	287,148,860	832,748	0.0029	0.9971	94.17
32.5	269,510,754	681,003	0.0025	0.9975	93.90
33.5	251,771,798	761,395	0.0030	0.9970	93.66
34.5	236,443,917	1,128,018	0.0048	0.9952	93.38
35.5	222,985,922	707,258	0.0032	0.9968	92.93
36.5	206,804,354	589,746	0.0029	0.9971	92.64
37.5	190,469,929	527,437	0.0028	0.9972	92.37
38.5	173,244,243	591,042	0.0034	0.9966	92.12

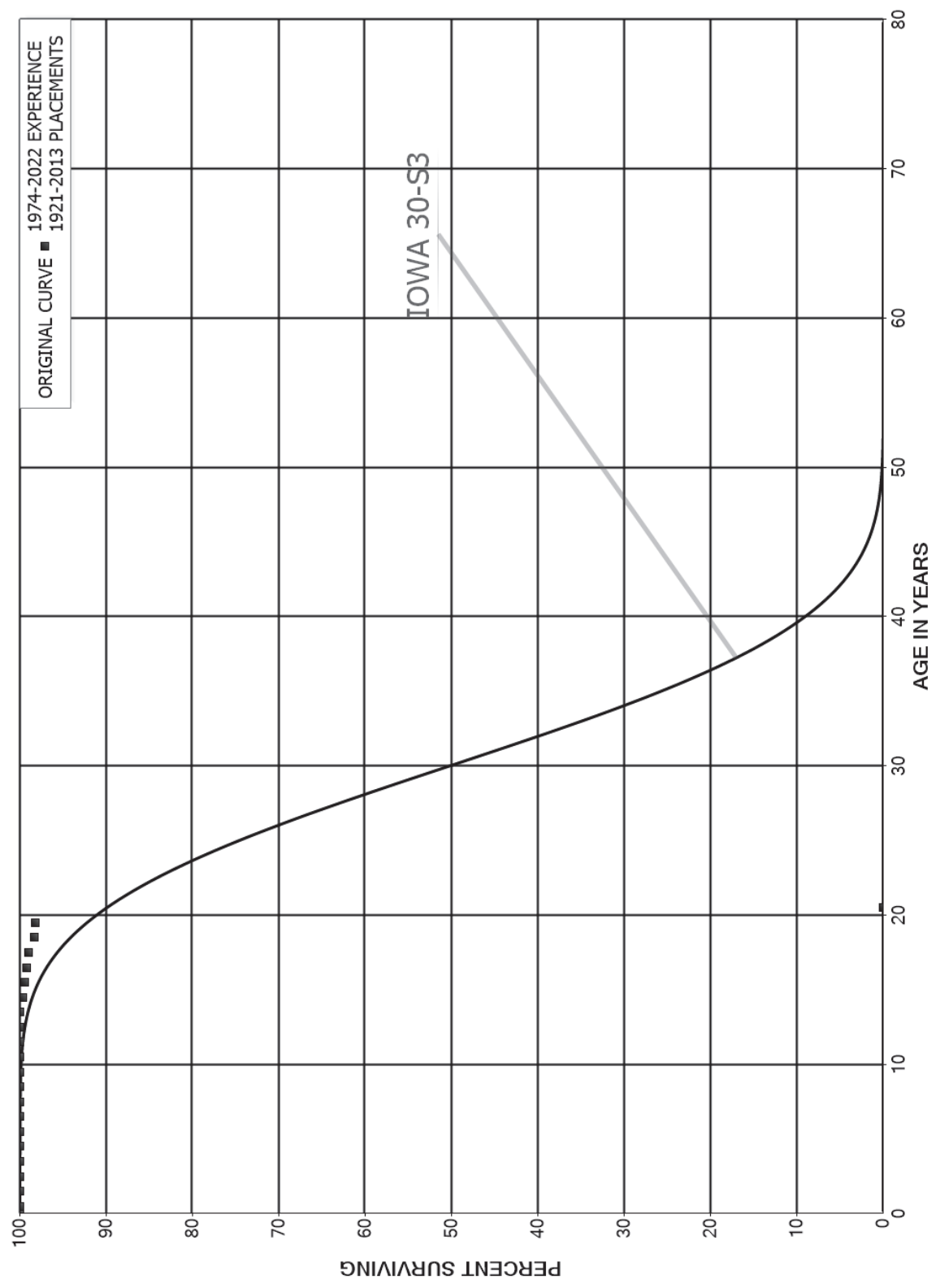
NORTHWEST NATURAL GAS COMPANY  
 ACCOUNTS 376.11 AND 376.12 MAINS  
 ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2022			EXPERIENCE BAND 1961-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	161,334,861	530,107	0.0033	0.9967	91.80
40.5	149,666,571	505,980	0.0034	0.9966	91.50
41.5	136,926,836	376,228	0.0027	0.9973	91.19
42.5	125,080,073	1,549,950	0.0124	0.9876	90.94
43.5	112,515,523	2,120,145	0.0188	0.9812	89.82
44.5	101,608,507	301,124	0.0030	0.9970	88.12
45.5	96,026,558	365,782	0.0038	0.9962	87.86
46.5	90,844,694	343,747	0.0038	0.9962	87.53
47.5	86,176,097	421,547	0.0049	0.9951	87.20
48.5	80,491,037	537,597	0.0067	0.9933	86.77
49.5	74,562,739	328,431	0.0044	0.9956	86.19
50.5	70,120,739	344,260	0.0049	0.9951	85.81
51.5	64,236,972	364,098	0.0057	0.9943	85.39
52.5	59,086,277	303,588	0.0051	0.9949	84.91
53.5	53,486,182	258,448	0.0048	0.9952	84.47
54.5	47,825,078	138,332	0.0029	0.9971	84.06
55.5	42,992,257	156,625	0.0036	0.9964	83.82
56.5	36,453,676	182,307	0.0050	0.9950	83.51
57.5	30,801,792	226,324	0.0073	0.9927	83.10
58.5	25,012,158	240,265	0.0096	0.9904	82.48
59.5	20,244,402	218,697	0.0108	0.9892	81.69
60.5	18,779,675	156,493	0.0083	0.9917	80.81
61.5	15,305,825	174,141	0.0114	0.9886	80.14
62.5	11,740,391	272,083	0.0232	0.9768	79.22
63.5	9,407,915	115,500	0.0123	0.9877	77.39
64.5	7,392,481	189,928	0.0257	0.9743	76.44
65.5	6,070,389	138,582	0.0228	0.9772	74.47
66.5	3,710,446	142,533	0.0384	0.9616	72.77
67.5	3,472,660	111,159	0.0320	0.9680	69.98
68.5	3,333,945	89,931	0.0270	0.9730	67.74
69.5	3,219,691	95,887	0.0298	0.9702	65.91
70.5	3,078,877	163,508	0.0531	0.9469	63.95
71.5	2,893,833	170,852	0.0590	0.9410	60.55
72.5	2,704,977	232,397	0.0859	0.9141	56.98
73.5	2,453,105	136,254	0.0555	0.9445	52.08
74.5	2,285,103	427,449	0.1871	0.8129	49.19
75.5	1,707,702	194,340	0.1138	0.8862	39.99
76.5	1,480,494	183,626	0.1240	0.8760	35.44
77.5	1,281,663	79,645	0.0621	0.9379	31.04
78.5	1,208,968	101,880	0.0843	0.9157	29.11

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNTS 376.11 AND 376.12 MAINS  
 ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2022			EXPERIENCE BAND 1961-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,106,596	80,711	0.0729	0.9271	26.66
80.5	1,014,007	85,060	0.0839	0.9161	24.72
81.5	923,844	108,546	0.1175	0.8825	22.64
82.5	786,271	61,510	0.0782	0.9218	19.98
83.5	718,007	32,179	0.0448	0.9552	18.42
84.5	687,305	62,266	0.0906	0.9094	17.59
85.5	602,882	42,757	0.0709	0.9291	16.00
86.5	555,828	57,255	0.1030	0.8970	14.86
87.5	481,138	66,475	0.1382	0.8618	13.33
88.5	404,180	22,665	0.0561	0.9439	11.49
89.5	381,209	18,140	0.0476	0.9524	10.85
90.5	364,667	3,707	0.0102	0.9898	10.33
91.5	336,605	10,887	0.0323	0.9677	10.23
92.5	266,554	768	0.0029	0.9971	9.89
93.5	278,387	306	0.0011	0.9989	9.87
94.5	259,964	511	0.0020	0.9980	9.86
95.5	246,335	252	0.0010	0.9990	9.84
96.5	217,484	460	0.0021	0.9979	9.83
97.5	188,590	3,122	0.0166	0.9834	9.81
98.5	179,814	4,135	0.0230	0.9770	9.64
99.5	157,019	913	0.0058	0.9942	9.42
100.5	119,032	4,783	0.0402	0.9598	9.37
101.5	98,112	5,719	0.0583	0.9417	8.99
102.5	85,763	4,399	0.0513	0.9487	8.47
103.5	79,101	1,475	0.0186	0.9814	8.03
104.5	75,228	1,580	0.0210	0.9790	7.88
105.5	71,951	1,018	0.0141	0.9859	7.72
106.5	60,708	170	0.0028	0.9972	7.61
107.5	56,397		0.0000	1.0000	7.59
108.5	58,625		0.0000	1.0000	7.59
109.5	37,145	331	0.0089	0.9911	7.59
110.5	36,708	946	0.0258	0.9742	7.52
111.5	35,621		0.0000	1.0000	7.32
112.5	15,210		0.0000	1.0000	7.32
113.5	38		0.0000	1.0000	7.32
114.5	38		0.0000	1.0000	7.32
115.5	38		0.0000	1.0000	7.32
116.5					7.32

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 377.00 COMPRESSOR STATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 377.00 COMPRESSOR STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1921-2013

EXPERIENCE BAND 1974-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	969,942		0.0000	1.0000	100.00
0.5	969,942		0.0000	1.0000	100.00
1.5	969,942		0.0000	1.0000	100.00
2.5	818,380		0.0000	1.0000	100.00
3.5	818,380		0.0000	1.0000	100.00
4.5	818,380		0.0000	1.0000	100.00
5.5	818,380		0.0000	1.0000	100.00
6.5	818,380		0.0000	1.0000	100.00
7.5	818,380		0.0000	1.0000	100.00
8.5	818,380		0.0000	1.0000	100.00
9.5	818,380		0.0000	1.0000	100.00
10.5	818,723		0.0000	1.0000	100.00
11.5	818,723	343	0.0004	0.9996	100.00
12.5	821,132		0.0000	1.0000	99.96
13.5	823,074	2,752	0.0033	0.9967	99.96
14.5	821,705	1,942	0.0024	0.9976	99.62
15.5	821,730	1,383	0.0017	0.9983	99.39
16.5	825,785	1,967	0.0024	0.9976	99.22
17.5	824,755	5,438	0.0066	0.9934	98.98
18.5	825,560	937	0.0011	0.9989	98.33
19.5	6,243	6,243	1.0000		98.22
20.5					
21.5					
22.5					
23.5	6,883		0.0000		
24.5	7,084	6,883	0.9716		
25.5	18,727	201	0.0107		
26.5	30,122	18,526	0.6150		
27.5	19,331	11,596	0.5999		
28.5	7,773	7,735	0.9951		
29.5	124,160	38	0.0003		
30.5	124,122	124,122	1.0000		
31.5					
32.5					
33.5					
34.5					
35.5	4,800		0.0000		
36.5	4,992	4,800	0.9615		
37.5	3,005	192	0.0639		
38.5	2,813	2,813	1.0000		

NORTHWEST NATURAL GAS COMPANY

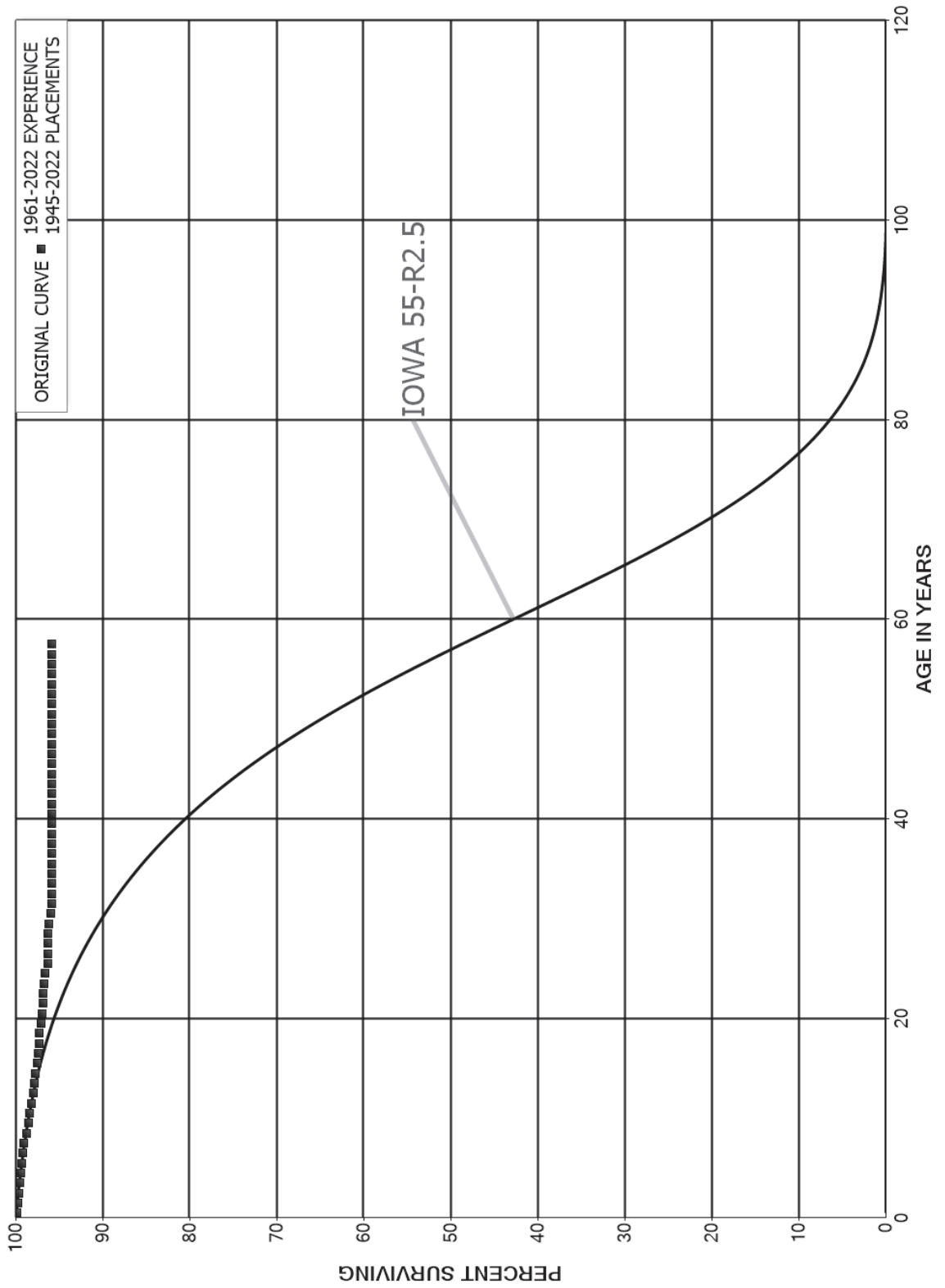
ACCOUNT 377.00 COMPRESSOR STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1921-2013			EXPERIENCE BAND 1974-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	80		0.0000		
40.5	80	80	1.0000		
41.5					
42.5					
43.5					
44.5					
45.5					
46.5	8,347		0.0000		
47.5	8,347	8,347	1.0000		
48.5	1,078		0.0000		
49.5	1,078	1,078	1.0000		
50.5					
51.5					
52.5	496		0.0000		
53.5	496	496	1.0000		
54.5					



NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1945-2022

EXPERIENCE BAND 1961-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	50,337,670	96,154	0.0019	0.9981	100.00
0.5	46,102,957	50,408	0.0011	0.9989	99.81
1.5	41,272,252	23,346	0.0006	0.9994	99.70
2.5	38,308,250	35,463	0.0009	0.9991	99.64
3.5	37,169,416	48,116	0.0013	0.9987	99.55
4.5	34,469,213	35,988	0.0010	0.9990	99.42
5.5	33,620,256	60,968	0.0018	0.9982	99.32
6.5	31,725,054	40,407	0.0013	0.9987	99.14
7.5	30,899,433	86,601	0.0028	0.9972	99.01
8.5	27,501,860	56,131	0.0020	0.9980	98.73
9.5	23,233,766	44,542	0.0019	0.9981	98.53
10.5	21,673,253	45,263	0.0021	0.9979	98.34
11.5	20,308,238	30,746	0.0015	0.9985	98.14
12.5	18,521,939	22,749	0.0012	0.9988	97.99
13.5	17,492,381	28,527	0.0016	0.9984	97.87
14.5	16,432,029	29,471	0.0018	0.9982	97.71
15.5	15,492,276	27,254	0.0018	0.9982	97.54
16.5	15,125,375	8,958	0.0006	0.9994	97.36
17.5	14,684,742	11,154	0.0008	0.9992	97.31
18.5	13,723,878	21,303	0.0016	0.9984	97.23
19.5	13,130,549	21,145	0.0016	0.9984	97.08
20.5	12,380,939	7,411	0.0006	0.9994	96.92
21.5	12,288,157	10,221	0.0008	0.9992	96.87
22.5	11,335,109	7,084	0.0006	0.9994	96.79
23.5	10,546,350	15,025	0.0014	0.9986	96.73
24.5	9,930,889	26,495	0.0027	0.9973	96.59
25.5	9,039,964	3,146	0.0003	0.9997	96.33
26.5	7,901,812	2,495	0.0003	0.9997	96.30
27.5	7,225,158	2,674	0.0004	0.9996	96.27
28.5	6,646,560	6,125	0.0009	0.9991	96.23
29.5	6,367,211	15,335	0.0024	0.9976	96.14
30.5	5,887,790	2,392	0.0004	0.9996	95.91
31.5	5,345,449		0.0000	1.0000	95.87
32.5	5,102,925		0.0000	1.0000	95.87
33.5	4,802,540		0.0000	1.0000	95.87
34.5	4,532,569		0.0000	1.0000	95.87
35.5	4,224,783		0.0000	1.0000	95.87
36.5	3,853,186		0.0000	1.0000	95.87
37.5	3,582,955		0.0000	1.0000	95.87
38.5	2,986,536		0.0000	1.0000	95.87

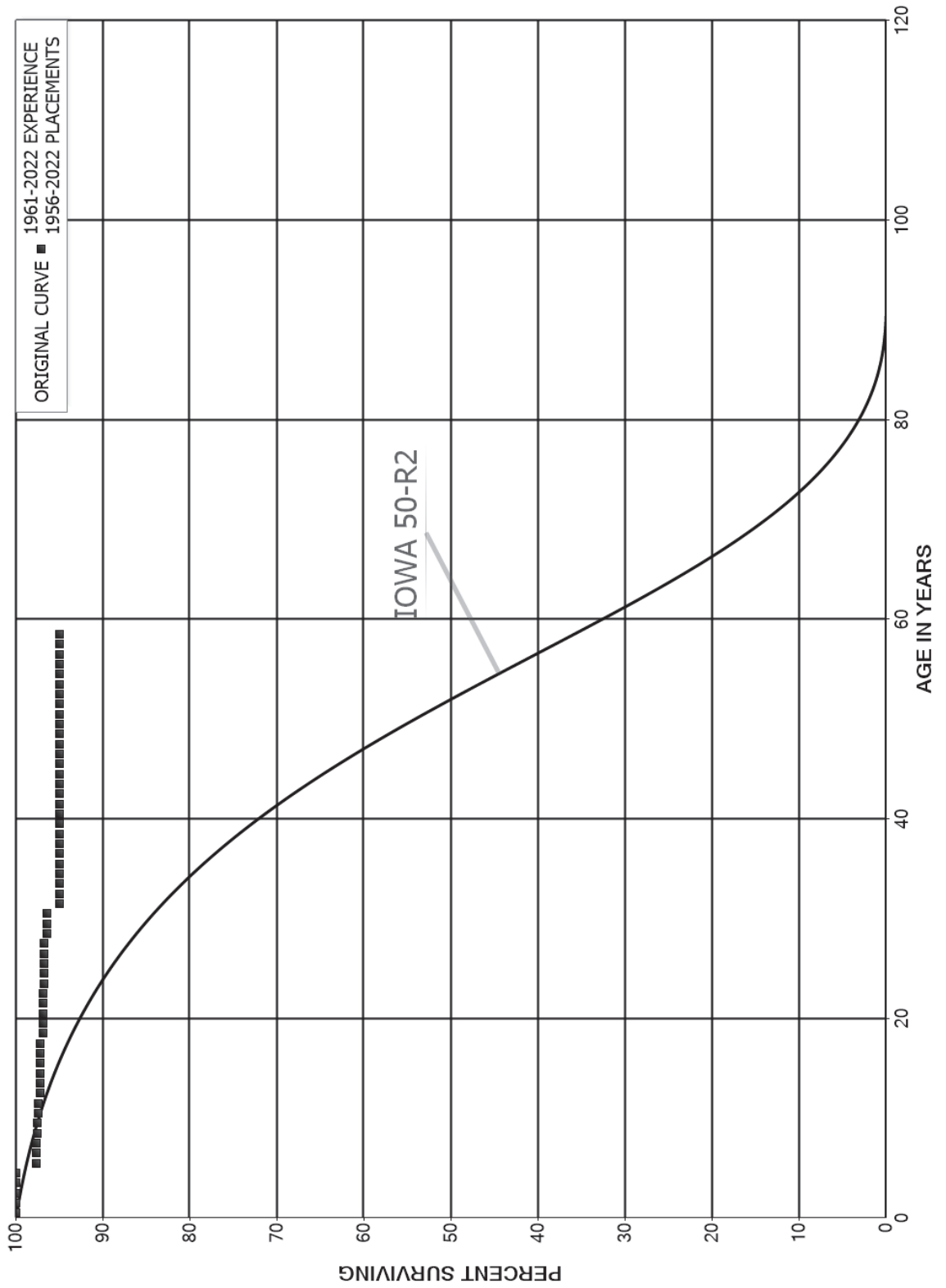
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1945-2022			EXPERIENCE BAND 1961-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	2,741,832		0.0000	1.0000	95.87
40.5	2,495,298		0.0000	1.0000	95.87
41.5	2,373,003		0.0000	1.0000	95.87
42.5	2,213,567		0.0000	1.0000	95.87
43.5	2,054,315		0.0000	1.0000	95.87
44.5	2,011,767		0.0000	1.0000	95.87
45.5	1,802,340		0.0000	1.0000	95.87
46.5	1,755,842		0.0000	1.0000	95.87
47.5	1,708,116		0.0000	1.0000	95.87
48.5	1,639,403		0.0000	1.0000	95.87
49.5	1,511,705		0.0000	1.0000	95.87
50.5	1,357,468		0.0000	1.0000	95.87
51.5	1,253,312		0.0000	1.0000	95.87
52.5	1,208,496		0.0000	1.0000	95.87
53.5	1,104,792		0.0000	1.0000	95.87
54.5	987,855		0.0000	1.0000	95.87
55.5	892,844		0.0000	1.0000	95.87
56.5	725,427		0.0000	1.0000	95.87
57.5	570,056		0.0000	1.0000	95.87
58.5	487,461		0.0000	1.0000	95.87
59.5	420,586		0.0000	1.0000	95.87
60.5	376,889		0.0000	1.0000	95.87
61.5	310,232		0.0000	1.0000	95.87
62.5	203,029		0.0000	1.0000	95.87
63.5	166,720		0.0000	1.0000	95.87
64.5	123,845		0.0000	1.0000	95.87
65.5	93,005		0.0000	1.0000	95.87
66.5	44,547		0.0000	1.0000	95.87
67.5	31,141		0.0000	1.0000	95.87
68.5	27,206		0.0000	1.0000	95.87
69.5	19,633		0.0000	1.0000	95.87
70.5	15,732		0.0000	1.0000	95.87
71.5	15,732		0.0000	1.0000	95.87
72.5	13,147		0.0000	1.0000	95.87
73.5					95.87

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1956-2022

EXPERIENCE BAND 1961-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	21,294,974	110	0.0000	1.0000	100.00
0.5	19,945,331	235	0.0000	1.0000	100.00
1.5	18,542,876	1,228	0.0001	0.9999	100.00
2.5	16,894,039	4,769	0.0003	0.9997	99.99
3.5	14,335,724	4,411	0.0003	0.9997	99.96
4.5	11,665,098	273,564	0.0235	0.9765	99.93
5.5	8,313,909	1,235	0.0001	0.9999	97.59
6.5	5,748,614	838	0.0001	0.9999	97.57
7.5	4,850,180	881	0.0002	0.9998	97.56
8.5	4,017,874	1,074	0.0003	0.9997	97.54
9.5	1,927,572	1,551	0.0008	0.9992	97.52
10.5	1,850,955		0.0000	1.0000	97.44
11.5	1,791,679	4,000	0.0022	0.9978	97.44
12.5	1,652,581		0.0000	1.0000	97.22
13.5	1,524,539		0.0000	1.0000	97.22
14.5	1,524,539		0.0000	1.0000	97.22
15.5	1,524,539		0.0000	1.0000	97.22
16.5	1,524,539	1,383	0.0009	0.9991	97.22
17.5	1,367,849	3,498	0.0026	0.9974	97.13
18.5	1,367,547		0.0000	1.0000	96.88
19.5	1,367,547		0.0000	1.0000	96.88
20.5	1,367,327	831	0.0006	0.9994	96.88
21.5	1,325,857	116	0.0001	0.9999	96.83
22.5	1,118,933	520	0.0005	0.9995	96.82
23.5	1,118,413		0.0000	1.0000	96.77
24.5	1,118,413		0.0000	1.0000	96.77
25.5	1,118,413		0.0000	1.0000	96.77
26.5	1,089,712		0.0000	1.0000	96.77
27.5	1,089,712	4,292	0.0039	0.9961	96.77
28.5	1,085,420		0.0000	1.0000	96.39
29.5	1,084,441		0.0000	1.0000	96.39
30.5	1,082,611	15,797	0.0146	0.9854	96.39
31.5	1,031,855		0.0000	1.0000	94.98
32.5	1,029,117		0.0000	1.0000	94.98
33.5	1,024,179		0.0000	1.0000	94.98
34.5	992,184		0.0000	1.0000	94.98
35.5	979,664		0.0000	1.0000	94.98
36.5	895,551		0.0000	1.0000	94.98
37.5	895,551		0.0000	1.0000	94.98
38.5	866,500		0.0000	1.0000	94.98

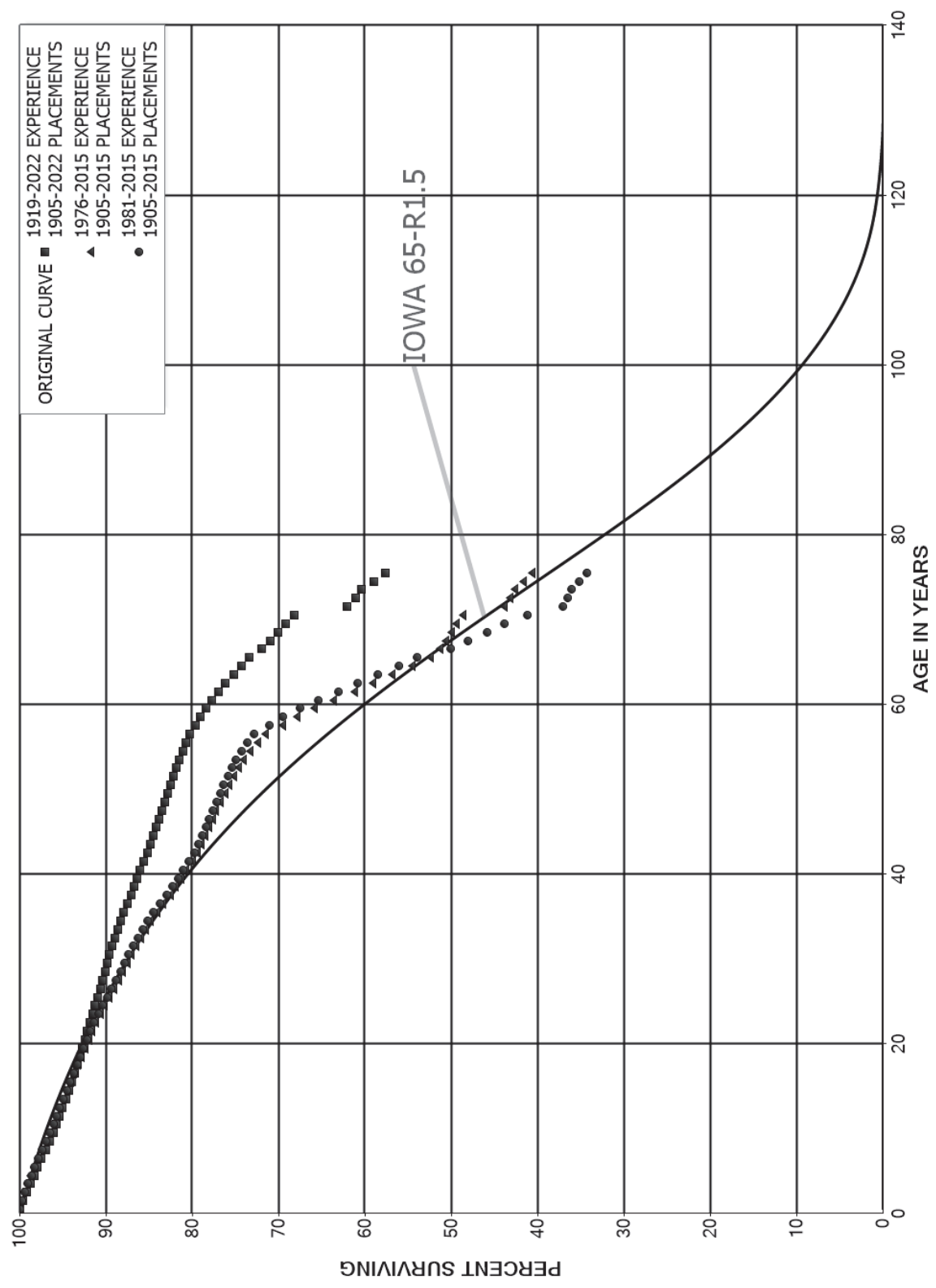
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1956-2022			EXPERIENCE BAND 1961-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	859,527		0.0000	1.0000	94.98
40.5	830,451		0.0000	1.0000	94.98
41.5	793,737		0.0000	1.0000	94.98
42.5	696,182		0.0000	1.0000	94.98
43.5	696,182		0.0000	1.0000	94.98
44.5	696,182		0.0000	1.0000	94.98
45.5	648,984		0.0000	1.0000	94.98
46.5	629,219		0.0000	1.0000	94.98
47.5	617,455		0.0000	1.0000	94.98
48.5	608,726		0.0000	1.0000	94.98
49.5	580,682		0.0000	1.0000	94.98
50.5	495,890		0.0000	1.0000	94.98
51.5	466,037		0.0000	1.0000	94.98
52.5	456,050		0.0000	1.0000	94.98
53.5	420,982		0.0000	1.0000	94.98
54.5	408,617		0.0000	1.0000	94.98
55.5	400,659		0.0000	1.0000	94.98
56.5	380,063		0.0000	1.0000	94.98
57.5	323,399		0.0000	1.0000	94.98
58.5	259,255		0.0000	1.0000	94.98
59.5	241,009		0.0000	1.0000	94.98
60.5	232,890		0.0000	1.0000	94.98
61.5	223,874		0.0000	1.0000	94.98
62.5	97,566		0.0000	1.0000	94.98
63.5	97,426		0.0000	1.0000	94.98
64.5	90,855		0.0000	1.0000	94.98
65.5	90,440		0.0000	1.0000	94.98
66.5					94.98

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 380.00 SERVICES  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2022

EXPERIENCE BAND 1919-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,020,053,364	1,032,416	0.0010	0.9990	100.00
0.5	983,469,927	2,306,351	0.0023	0.9977	99.90
1.5	937,222,718	4,513,769	0.0048	0.9952	99.66
2.5	894,042,233	4,139,212	0.0046	0.9954	99.18
3.5	850,799,641	3,539,810	0.0042	0.9958	98.73
4.5	813,730,576	3,287,284	0.0040	0.9960	98.31
5.5	778,674,100	3,604,171	0.0046	0.9954	97.92
6.5	745,854,170	3,823,457	0.0051	0.9949	97.46
7.5	715,273,817	3,425,291	0.0048	0.9952	96.96
8.5	686,577,272	2,886,886	0.0042	0.9958	96.50
9.5	659,248,876	2,609,902	0.0040	0.9960	96.09
10.5	638,320,816	2,354,072	0.0037	0.9963	95.71
11.5	619,874,514	2,249,356	0.0036	0.9964	95.36
12.5	607,160,161	2,249,239	0.0037	0.9963	95.01
13.5	585,244,492	2,502,896	0.0043	0.9957	94.66
14.5	563,053,311	1,974,726	0.0035	0.9965	94.26
15.5	541,328,578	1,893,059	0.0035	0.9965	93.93
16.5	516,839,757	1,778,154	0.0034	0.9966	93.60
17.5	493,509,603	1,533,426	0.0031	0.9969	93.28
18.5	468,431,725	1,515,087	0.0032	0.9968	92.99
19.5	441,676,278	1,320,981	0.0030	0.9970	92.69
20.5	416,223,108	1,217,591	0.0029	0.9971	92.41
21.5	391,951,852	1,123,554	0.0029	0.9971	92.14
22.5	367,832,359	1,305,258	0.0035	0.9965	91.87
23.5	340,477,244	1,012,806	0.0030	0.9970	91.55
24.5	315,431,137	1,116,397	0.0035	0.9965	91.28
25.5	289,488,696	922,935	0.0032	0.9968	90.95
26.5	265,657,093	799,663	0.0030	0.9970	90.66
27.5	244,666,504	763,728	0.0031	0.9969	90.39
28.5	222,083,481	660,784	0.0030	0.9970	90.11
29.5	200,055,486	608,789	0.0030	0.9970	89.84
30.5	180,117,837	563,167	0.0031	0.9969	89.57
31.5	160,940,163	574,772	0.0036	0.9964	89.29
32.5	143,254,580	507,980	0.0035	0.9965	88.97
33.5	127,746,294	478,980	0.0037	0.9963	88.65
34.5	115,841,436	500,617	0.0043	0.9957	88.32
35.5	105,297,195	486,582	0.0046	0.9954	87.94
36.5	95,120,255	471,647	0.0050	0.9950	87.53
37.5	84,596,832	355,631	0.0042	0.9958	87.10
38.5	75,944,384	317,397	0.0042	0.9958	86.73



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2022

EXPERIENCE BAND 1919-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	69,199,124	261,567	0.0038	0.9962	86.37
40.5	63,099,224	316,376	0.0050	0.9950	86.04
41.5	55,506,088	258,146	0.0047	0.9953	85.61
42.5	48,090,495	193,057	0.0040	0.9960	85.21
43.5	42,191,969	166,448	0.0039	0.9961	84.87
44.5	37,404,487	155,040	0.0041	0.9959	84.54
45.5	34,015,991	133,755	0.0039	0.9961	84.19
46.5	31,189,244	120,076	0.0038	0.9962	83.86
47.5	28,911,992	120,571	0.0042	0.9958	83.53
48.5	26,418,402	103,820	0.0039	0.9961	83.18
49.5	23,622,029	86,220	0.0036	0.9964	82.86
50.5	20,990,431	92,691	0.0044	0.9956	82.55
51.5	18,616,086	80,259	0.0043	0.9957	82.19
52.5	16,534,835	65,653	0.0040	0.9960	81.84
53.5	14,497,110	74,250	0.0051	0.9949	81.51
54.5	12,700,604	64,227	0.0051	0.9949	81.09
55.5	11,048,595	56,113	0.0051	0.9949	80.68
56.5	9,400,318	75,741	0.0081	0.9919	80.27
57.5	7,957,163	53,528	0.0067	0.9933	79.63
58.5	6,740,552	57,646	0.0086	0.9914	79.09
59.5	5,734,306	48,065	0.0084	0.9916	78.41
60.5	4,912,407	50,314	0.0102	0.9898	77.76
61.5	4,130,385	44,317	0.0107	0.9893	76.96
62.5	3,453,322	42,717	0.0124	0.9876	76.14
63.5	3,142,240	38,909	0.0124	0.9876	75.19
64.5	3,056,222	36,786	0.0120	0.9880	74.26
65.5	2,827,948	53,808	0.0190	0.9810	73.37
66.5	2,552,199	35,907	0.0141	0.9859	71.97
67.5	2,500,865	32,506	0.0130	0.9870	70.96
68.5	2,454,912	29,497	0.0120	0.9880	70.04
69.5	2,346,137	33,605	0.0143	0.9857	69.20
70.5	2,299,263	206,564	0.0898	0.9102	68.20
71.5	2,041,155	33,519	0.0164	0.9836	62.08
72.5	1,987,044	22,736	0.0114	0.9886	61.06
73.5	1,940,349	45,378	0.0234	0.9766	60.36
74.5	1,877,339	41,222	0.0220	0.9780	58.95
75.5	392,956	14,035	0.0357	0.9643	57.65
76.5	331,806	17,460	0.0526	0.9474	55.59
77.5	291,878	11,346	0.0389	0.9611	52.67
78.5	262,540	8,774	0.0334	0.9666	50.62

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2022

EXPERIENCE BAND 1919-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	248,589	6,032	0.0243	0.9757	48.93
80.5	220,518	6,482	0.0294	0.9706	47.74
81.5	199,198	6,888	0.0346	0.9654	46.34
82.5	179,490	6,825	0.0380	0.9620	44.74
83.5	154,317	3,675	0.0238	0.9762	43.04
84.5	136,167	3,757	0.0276	0.9724	42.01
85.5	123,880	3,913	0.0316	0.9684	40.85
86.5	114,157	2,455	0.0215	0.9785	39.56
87.5	104,740	1,288	0.0123	0.9877	38.71
88.5	103,850	1,377	0.0133	0.9867	38.23
89.5	100,031	795	0.0079	0.9921	37.73
90.5	91,781	17,359	0.1891	0.8109	37.43
91.5	62,420	3,612	0.0579	0.9421	30.35
92.5	54,356	1,691	0.0311	0.9689	28.59
93.5	48,619	2,161	0.0444	0.9556	27.70
94.5	43,697	4,384	0.1003	0.8997	26.47
95.5	39,081	1,361	0.0348	0.9652	23.82
96.5	33,147	625	0.0189	0.9811	22.99
97.5	24,666	423	0.0171	0.9829	22.55
98.5	18,774	388	0.0207	0.9793	22.17
99.5	17,057	570	0.0334	0.9666	21.71
100.5	15,736	489	0.0311	0.9689	20.98
101.5	15,286	447	0.0292	0.9708	20.33
102.5	12,461	256	0.0205	0.9795	19.74
103.5	9,967	328	0.0329	0.9671	19.33
104.5	7,975	239	0.0300	0.9700	18.70
105.5	7,736	109	0.0141	0.9859	18.14
106.5	7,627	321	0.0421	0.9579	17.88
107.5	7,299	104	0.0143	0.9857	17.13
108.5	7,024	87	0.0124	0.9876	16.88
109.5	6,901	83	0.0120	0.9880	16.67
110.5	5,713	29	0.0051	0.9949	16.47
111.5	5,683	38	0.0066	0.9934	16.39
112.5	2,838	0	0.0000	1.0000	16.28
113.5	2,785	22	0.0079	0.9921	16.28
114.5	1,588		0.0000	1.0000	16.15
115.5	1,588	19	0.0118	0.9882	16.15
116.5	1,436	45	0.0310	0.9690	15.96
117.5					15.47

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2015

EXPERIENCE BAND 1976-2015

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	719,096,775	568,357	0.0008	0.9992	100.00
0.5	693,643,292	1,319,582	0.0019	0.9981	99.92
1.5	667,462,905	2,325,246	0.0035	0.9965	99.73
2.5	643,364,245	2,426,756	0.0038	0.9962	99.38
3.5	625,125,686	2,497,748	0.0040	0.9960	99.01
4.5	609,123,532	2,472,689	0.0041	0.9959	98.61
5.5	598,723,462	2,659,992	0.0044	0.9956	98.21
6.5	578,494,534	2,715,397	0.0047	0.9953	97.78
7.5	557,994,341	2,676,125	0.0048	0.9952	97.32
8.5	537,545,260	2,410,751	0.0045	0.9955	96.85
9.5	514,495,328	2,077,535	0.0040	0.9960	96.42
10.5	492,436,156	1,938,105	0.0039	0.9961	96.03
11.5	468,676,863	1,885,282	0.0040	0.9960	95.65
12.5	442,867,326	1,821,114	0.0041	0.9959	95.26
13.5	418,275,210	2,121,702	0.0051	0.9949	94.87
14.5	394,205,527	1,696,741	0.0043	0.9957	94.39
15.5	370,573,726	1,634,305	0.0044	0.9956	93.99
16.5	343,550,694	1,579,612	0.0046	0.9954	93.57
17.5	318,443,478	1,352,378	0.0042	0.9958	93.14
18.5	292,656,096	1,372,112	0.0047	0.9953	92.74
19.5	268,738,218	1,226,661	0.0046	0.9954	92.31
20.5	247,325,684	1,104,720	0.0045	0.9955	91.89
21.5	224,300,630	1,026,199	0.0046	0.9954	91.48
22.5	201,968,171	1,221,880	0.0060	0.9940	91.06
23.5	181,633,202	924,927	0.0051	0.9949	90.51
24.5	162,206,271	1,038,777	0.0064	0.9936	90.05
25.5	144,233,499	849,065	0.0059	0.9941	89.47
26.5	128,475,042	722,228	0.0056	0.9944	88.94
27.5	116,388,458	688,326	0.0059	0.9941	88.44
28.5	105,767,470	602,401	0.0057	0.9943	87.92
29.5	95,638,161	545,296	0.0057	0.9943	87.42
30.5	85,040,072	514,671	0.0061	0.9939	86.92
31.5	76,220,574	508,309	0.0067	0.9933	86.40
32.5	69,258,973	453,214	0.0065	0.9935	85.82
33.5	62,967,415	423,259	0.0067	0.9933	85.26
34.5	55,241,506	444,813	0.0081	0.9919	84.69
35.5	47,620,517	420,601	0.0088	0.9912	84.00
36.5	41,432,905	414,302	0.0100	0.9900	83.26
37.5	36,357,672	284,751	0.0078	0.9922	82.43
38.5	32,805,062	256,538	0.0078	0.9922	81.78

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2015

EXPERIENCE BAND 1976-2015

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	29,832,670	197,897	0.0066	0.9934	81.14
40.5	27,443,601	250,055	0.0091	0.9909	80.61
41.5	24,781,775	185,983	0.0075	0.9925	79.87
42.5	21,867,977	128,482	0.0059	0.9941	79.27
43.5	19,177,416	103,663	0.0054	0.9946	78.81
44.5	16,786,612	95,564	0.0057	0.9943	78.38
45.5	14,669,601	72,396	0.0049	0.9951	77.93
46.5	12,638,806	69,320	0.0055	0.9945	77.55
47.5	10,847,116	74,557	0.0069	0.9931	77.12
48.5	9,176,584	60,559	0.0066	0.9934	76.59
49.5	7,523,018	41,650	0.0055	0.9945	76.09
50.5	6,134,297	48,594	0.0079	0.9921	75.67
51.5	4,955,088	37,454	0.0076	0.9924	75.07
52.5	3,986,339	29,080	0.0073	0.9927	74.50
53.5	3,188,815	33,901	0.0106	0.9894	73.96
54.5	2,435,730	28,099	0.0115	0.9885	73.17
55.5	1,793,195	23,591	0.0132	0.9868	72.33
56.5	1,508,170	40,874	0.0271	0.9729	71.37
57.5	1,421,983	34,434	0.0242	0.9758	69.44
58.5	1,200,808	36,150	0.0301	0.9699	67.76
59.5	955,749	32,807	0.0343	0.9657	65.72
60.5	927,214	35,142	0.0379	0.9621	63.46
61.5	894,281	31,566	0.0353	0.9647	61.06
62.5	801,115	30,164	0.0377	0.9623	58.90
63.5	781,043	31,842	0.0408	0.9592	56.68
64.5	737,356	27,775	0.0377	0.9623	54.37
65.5	2,392,368	50,900	0.0213	0.9787	52.33
66.5	2,314,924	32,520	0.0140	0.9860	51.21
67.5	2,264,280	29,278	0.0129	0.9871	50.49
68.5	2,197,548	26,661	0.0121	0.9879	49.84
69.5	2,122,871	30,528	0.0144	0.9856	49.24
70.5	2,071,068	203,366	0.0982	0.9018	48.53
71.5	1,848,813	30,648	0.0166	0.9834	43.76
72.5	1,812,315	21,566	0.0119	0.9881	43.04
73.5	1,768,069	44,121	0.0250	0.9750	42.52
74.5	1,708,247	40,134	0.0235	0.9765	41.46
75.5	246,980	13,166	0.0533	0.9467	40.49
76.5	214,880	16,696	0.0777	0.9223	38.33
77.5	183,078	10,462	0.0571	0.9429	35.35
78.5	163,392	7,944	0.0486	0.9514	33.33

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2015			EXPERIENCE BAND 1976-2015			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	148,900	5,202	0.0349	0.9651	31.71	
80.5	135,883	5,854	0.0431	0.9569	30.60	
81.5	126,087	6,306	0.0500	0.9500	29.29	
82.5	116,236	6,129	0.0527	0.9473	27.82	
83.5	101,396	2,918	0.0288	0.9712	26.35	
84.5	85,647	2,997	0.0350	0.9650	25.60	
85.5	78,080	3,258	0.0417	0.9583	24.70	
86.5	70,775	1,731	0.0245	0.9755	23.67	
87.5	66,283	865	0.0130	0.9870	23.09	
88.5	68,138	540	0.0079	0.9921	22.79	
89.5	63,091	457	0.0072	0.9928	22.61	
90.5	54,906	17,083	0.3111	0.6889	22.44	
91.5	31,736	3,288	0.1036	0.8964	15.46	
92.5	27,236	1,630	0.0599	0.9401	13.86	
93.5	24,244	1,781	0.0734	0.9266	13.03	
94.5	22,463	4,059	0.1807	0.8193	12.07	
95.5	15,942	1,251	0.0785	0.9215	9.89	
96.5	12,453	452	0.0363	0.9637	9.11	
97.5	10,337	298	0.0288	0.9712	8.78	
98.5	9,751	184	0.0188	0.9812	8.53	
99.5	9,567	308	0.0321	0.9679	8.37	
100.5	9,224	411	0.0445	0.9555	8.10	
101.5	7,840	191	0.0244	0.9756	7.74	
102.5	7,697	130	0.0169	0.9831	7.55	
103.5	5,978	60	0.0100	0.9900	7.42	
104.5	5,918	98	0.0165	0.9835	7.35	
105.5	3,013		0.0000	1.0000	7.23	
106.5	2,960	37	0.0125	0.9875	7.23	
107.5	1,748	29	0.0165	0.9835	7.14	
108.5	1,719		0.0000	1.0000	7.02	
109.5	1,586	42	0.0267	0.9733	7.02	
110.5					6.83	

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2015

EXPERIENCE BAND 1981-2015

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	686,602,942	542,260	0.0008	0.9992	100.00
0.5	668,187,342	1,198,907	0.0018	0.9982	99.92
1.5	647,207,319	2,207,430	0.0034	0.9966	99.74
2.5	625,622,703	2,316,964	0.0037	0.9963	99.40
3.5	608,456,016	2,372,717	0.0039	0.9961	99.03
4.5	592,797,930	2,362,113	0.0040	0.9960	98.65
5.5	582,396,162	2,553,511	0.0044	0.9956	98.25
6.5	562,477,048	2,590,122	0.0046	0.9954	97.82
7.5	543,019,857	2,562,331	0.0047	0.9953	97.37
8.5	523,620,964	2,283,982	0.0044	0.9956	96.91
9.5	501,463,771	1,941,815	0.0039	0.9961	96.49
10.5	480,425,163	1,811,030	0.0038	0.9962	96.12
11.5	457,681,082	1,780,290	0.0039	0.9961	95.75
12.5	432,681,533	1,704,342	0.0039	0.9961	95.38
13.5	408,990,101	2,020,634	0.0049	0.9951	95.01
14.5	386,058,077	1,590,604	0.0041	0.9959	94.54
15.5	363,367,593	1,537,152	0.0042	0.9958	94.15
16.5	337,367,298	1,481,259	0.0044	0.9956	93.75
17.5	313,320,573	1,247,938	0.0040	0.9960	93.34
18.5	288,386,285	1,253,541	0.0043	0.9957	92.97
19.5	265,215,598	1,120,376	0.0042	0.9958	92.56
20.5	244,766,074	998,169	0.0041	0.9959	92.17
21.5	222,582,263	944,564	0.0042	0.9958	91.80
22.5	200,626,816	1,165,841	0.0058	0.9942	91.41
23.5	180,781,649	883,816	0.0049	0.9951	90.87
24.5	161,703,056	1,014,244	0.0063	0.9937	90.43
25.5	143,778,265	831,854	0.0058	0.9942	89.86
26.5	128,004,451	709,855	0.0055	0.9945	89.34
27.5	116,042,901	674,775	0.0058	0.9942	88.85
28.5	105,368,368	590,960	0.0056	0.9944	88.33
29.5	95,219,974	528,938	0.0056	0.9944	87.84
30.5	84,657,724	501,044	0.0059	0.9941	87.35
31.5	75,867,986	493,394	0.0065	0.9935	86.83
32.5	68,947,897	439,817	0.0064	0.9936	86.27
33.5	62,734,300	415,526	0.0066	0.9934	85.72
34.5	55,080,825	439,451	0.0080	0.9920	85.15
35.5	47,479,873	416,417	0.0088	0.9912	84.47
36.5	41,296,661	409,003	0.0099	0.9901	83.73
37.5	36,210,560	280,506	0.0077	0.9923	82.90
38.5	32,667,662	251,837	0.0077	0.9923	82.26

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2015

EXPERIENCE BAND 1981-2015

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	29,709,946	194,129	0.0065	0.9935	81.62
40.5	27,330,959	246,768	0.0090	0.9910	81.09
41.5	24,687,054	183,530	0.0074	0.9926	80.36
42.5	21,791,058	125,974	0.0058	0.9942	79.76
43.5	19,101,966	101,311	0.0053	0.9947	79.30
44.5	16,689,351	93,191	0.0056	0.9944	78.88
45.5	14,564,135	68,550	0.0047	0.9953	78.44
46.5	12,499,424	64,199	0.0051	0.9949	78.07
47.5	10,684,886	69,133	0.0065	0.9935	77.67
48.5	8,992,785	52,655	0.0059	0.9941	77.16
49.5	7,342,051	34,146	0.0047	0.9953	76.71
50.5	5,926,026	40,529	0.0068	0.9932	76.36
51.5	4,739,823	28,844	0.0061	0.9939	75.83
52.5	3,769,650	21,572	0.0057	0.9943	75.37
53.5	2,975,750	25,547	0.0086	0.9914	74.94
54.5	2,234,831	21,145	0.0095	0.9905	74.30
55.5	1,618,723	16,832	0.0104	0.9896	73.59
56.5	1,372,115	34,170	0.0249	0.9751	72.83
57.5	1,321,330	29,062	0.0220	0.9780	71.02
58.5	1,120,211	30,889	0.0276	0.9724	69.45
59.5	895,884	29,028	0.0324	0.9676	67.54
60.5	869,361	31,128	0.0358	0.9642	65.35
61.5	836,293	29,542	0.0353	0.9647	63.01
62.5	725,188	27,505	0.0379	0.9621	60.78
63.5	701,399	28,590	0.0408	0.9592	58.48
64.5	626,729	23,899	0.0381	0.9619	56.10
65.5	598,637	42,722	0.0714	0.9286	53.96
66.5	542,061	22,547	0.0416	0.9584	50.11
67.5	517,559	23,303	0.0450	0.9550	48.02
68.5	473,800	21,434	0.0452	0.9548	45.86
69.5	438,965	26,494	0.0604	0.9396	43.78
70.5	2,067,501	203,366	0.0984	0.9016	41.14
71.5	1,845,299	30,648	0.0166	0.9834	37.10
72.5	1,809,976	21,566	0.0119	0.9881	36.48
73.5	1,765,730	44,121	0.0250	0.9750	36.04
74.5	1,706,098	40,134	0.0235	0.9765	35.14
75.5	246,980	13,166	0.0533	0.9467	34.32
76.5	214,880	16,696	0.0777	0.9223	32.49
77.5	183,078	10,462	0.0571	0.9429	29.96
78.5	163,392	7,944	0.0486	0.9514	28.25

NORTHWEST NATURAL GAS COMPANY

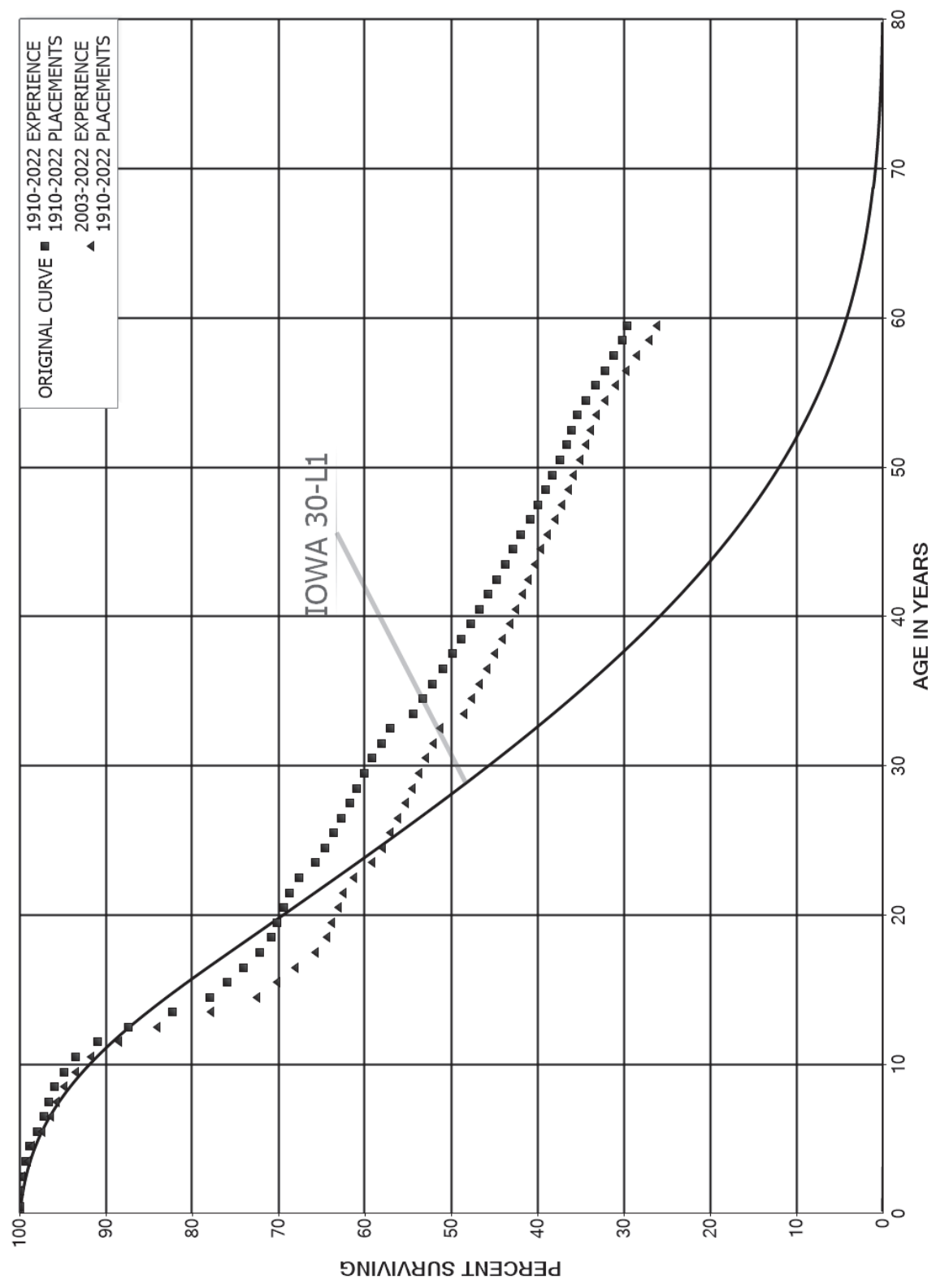
ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2015			EXPERIENCE BAND 1981-2015			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	148,900	5,202	0.0349	0.9651	26.88	
80.5	135,883	5,854	0.0431	0.9569	25.94	
81.5	126,087	6,306	0.0500	0.9500	24.82	
82.5	116,236	6,129	0.0527	0.9473	23.58	
83.5	101,396	2,918	0.0288	0.9712	22.34	
84.5	85,647	2,997	0.0350	0.9650	21.69	
85.5	78,080	3,258	0.0417	0.9583	20.93	
86.5	70,775	1,731	0.0245	0.9755	20.06	
87.5	66,283	865	0.0130	0.9870	19.57	
88.5	68,138	540	0.0079	0.9921	19.31	
89.5	63,091	457	0.0072	0.9928	19.16	
90.5	54,906	17,083	0.3111	0.6889	19.02	
91.5	31,736	3,288	0.1036	0.8964	13.10	
92.5	27,236	1,630	0.0599	0.9401	11.75	
93.5	24,244	1,781	0.0734	0.9266	11.04	
94.5	22,463	4,059	0.1807	0.8193	10.23	
95.5	15,942	1,251	0.0785	0.9215	8.38	
96.5	12,453	452	0.0363	0.9637	7.73	
97.5	10,337	298	0.0288	0.9712	7.44	
98.5	9,751	184	0.0188	0.9812	7.23	
99.5	9,567	308	0.0321	0.9679	7.09	
100.5	9,224	411	0.0445	0.9555	6.87	
101.5	7,840	191	0.0244	0.9756	6.56	
102.5	7,697	130	0.0169	0.9831	6.40	
103.5	5,978	60	0.0100	0.9900	6.29	
104.5	5,918	98	0.0165	0.9835	6.23	
105.5	3,013		0.0000	1.0000	6.13	
106.5	2,960	37	0.0125	0.9875	6.13	
107.5	1,748	29	0.0165	0.9835	6.05	
108.5	1,719		0.0000	1.0000	5.95	
109.5	1,586	42	0.0267	0.9733	5.95	
110.5					5.79	



NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 381.00 METERS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2022

EXPERIENCE BAND 1910-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	143,826,164	12,947	0.0001	0.9999	100.00
0.5	141,382,277	38,641	0.0003	0.9997	99.99
1.5	111,451,565	286,740	0.0026	0.9974	99.96
2.5	108,725,296	501,548	0.0046	0.9954	99.71
3.5	103,402,128	372,295	0.0036	0.9964	99.25
4.5	98,439,597	929,182	0.0094	0.9906	98.89
5.5	91,332,278	722,128	0.0079	0.9921	97.96
6.5	90,619,372	518,235	0.0057	0.9943	97.18
7.5	87,024,752	614,229	0.0071	0.9929	96.63
8.5	83,545,617	947,386	0.0113	0.9887	95.94
9.5	79,042,733	1,152,351	0.0146	0.9854	94.86
10.5	72,887,040	1,973,473	0.0271	0.9729	93.47
11.5	70,978,832	2,756,415	0.0388	0.9612	90.94
12.5	68,333,755	3,999,415	0.0585	0.9415	87.41
13.5	64,032,215	3,389,223	0.0529	0.9471	82.29
14.5	56,784,285	1,491,303	0.0263	0.9737	77.94
15.5	50,432,917	1,225,363	0.0243	0.9757	75.89
16.5	42,866,708	1,113,923	0.0260	0.9740	74.05
17.5	41,510,097	712,672	0.0172	0.9828	72.12
18.5	37,951,043	408,418	0.0108	0.9892	70.89
19.5	34,785,443	348,691	0.0100	0.9900	70.12
20.5	32,556,174	334,634	0.0103	0.9897	69.42
21.5	30,442,343	503,712	0.0165	0.9835	68.71
22.5	28,679,930	772,505	0.0269	0.9731	67.57
23.5	26,486,699	466,441	0.0176	0.9824	65.75
24.5	24,695,883	368,089	0.0149	0.9851	64.59
25.5	23,102,119	340,210	0.0147	0.9853	63.63
26.5	21,592,875	325,911	0.0151	0.9849	62.69
27.5	20,149,649	276,230	0.0137	0.9863	61.75
28.5	18,830,756	262,123	0.0139	0.9861	60.90
29.5	17,522,632	257,771	0.0147	0.9853	60.05
30.5	16,136,968	296,931	0.0184	0.9816	59.17
31.5	15,217,043	274,336	0.0180	0.9820	58.08
32.5	13,751,456	624,510	0.0454	0.9546	57.03
33.5	12,389,953	251,826	0.0203	0.9797	54.44
34.5	11,658,353	262,755	0.0225	0.9775	53.34
35.5	11,368,152	249,124	0.0219	0.9781	52.13
36.5	10,366,721	227,916	0.0220	0.9780	50.99
37.5	9,788,257	209,028	0.0214	0.9786	49.87
38.5	9,335,313	206,244	0.0221	0.9779	48.80

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2022

EXPERIENCE BAND 1910-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,952,604	190,048	0.0212	0.9788	47.73
40.5	8,164,392	180,118	0.0221	0.9779	46.71
41.5	7,249,705	152,044	0.0210	0.9790	45.68
42.5	6,661,128	155,955	0.0234	0.9766	44.72
43.5	6,025,474	115,629	0.0192	0.9808	43.68
44.5	5,643,974	122,538	0.0217	0.9783	42.84
45.5	5,241,298	130,943	0.0250	0.9750	41.91
46.5	5,127,585	115,171	0.0225	0.9775	40.86
47.5	4,995,019	108,251	0.0217	0.9783	39.94
48.5	4,505,899	85,789	0.0190	0.9810	39.08
49.5	4,119,360	95,457	0.0232	0.9768	38.33
50.5	3,364,184	70,863	0.0211	0.9789	37.45
51.5	3,014,459	50,268	0.0167	0.9833	36.66
52.5	2,662,098	50,575	0.0190	0.9810	36.05
53.5	2,435,688	69,170	0.0284	0.9716	35.36
54.5	2,097,358	63,569	0.0303	0.9697	34.36
55.5	1,708,692	56,884	0.0333	0.9667	33.32
56.5	1,506,137	48,408	0.0321	0.9679	32.21
57.5	1,207,982	40,117	0.0332	0.9668	31.17
58.5	994,762	18,537	0.0186	0.9814	30.14
59.5	800,819	11,095	0.0139	0.9861	29.57
60.5	620,774	4,602	0.0074	0.9926	29.17
61.5	497,734	852	0.0017	0.9983	28.95
62.5	489,771	549	0.0011	0.9989	28.90
63.5	489,136	539	0.0011	0.9989	28.87
64.5	474,497	117	0.0002	0.9998	28.84
65.5	452,972	345	0.0008	0.9992	28.83
66.5	433,130	128	0.0003	0.9997	28.81
67.5	432,187	140	0.0003	0.9997	28.80
68.5	431,797	15	0.0000	1.0000	28.79
69.5	431,251		0.0000	1.0000	28.79
70.5	430,870	12,553	0.0291	0.9709	28.79
71.5	418,251	72	0.0002	0.9998	27.95
72.5	404,432	8	0.0000	1.0000	27.94
73.5	404,424	2,962	0.0073	0.9927	27.94
74.5	401,289		0.0000	1.0000	27.74
75.5	130,447	615	0.0047	0.9953	27.74
76.5	128,674	680	0.0053	0.9947	27.61
77.5	127,994	649	0.0051	0.9949	27.46
78.5	127,345	8	0.0001	0.9999	27.32

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2022			EXPERIENCE BAND 1910-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	127,308	1	0.0000	1.0000	27.32
80.5	127,307	377	0.0030	0.9970	27.32
81.5	126,930	2,255	0.0178	0.9822	27.24
82.5	124,675		0.0000	1.0000	26.76
83.5	124,675	2,534	0.0203	0.9797	26.76
84.5	122,141		0.0000	1.0000	26.21
85.5	122,141		0.0000	1.0000	26.21
86.5	122,141		0.0000	1.0000	26.21
87.5	122,141		0.0000	1.0000	26.21
88.5	122,141		0.0000	1.0000	26.21
89.5	122,141	87	0.0007	0.9993	26.21
90.5	122,054	148	0.0012	0.9988	26.19
91.5	121,906	320	0.0026	0.9974	26.16
92.5	121,585	1,451	0.0119	0.9881	26.09
93.5	120,134	1,246	0.0104	0.9896	25.78
94.5	118,888	1,739	0.0146	0.9854	25.51
95.5	117,149	3,869	0.0330	0.9670	25.14
96.5	113,280	9,143	0.0807	0.9193	24.31
97.5	104,137	6,898	0.0662	0.9338	22.35
98.5	97,239	2,496	0.0257	0.9743	20.87
99.5	94,743	2,878	0.0304	0.9696	20.33
100.5	91,864	1,720	0.0187	0.9813	19.71
101.5	90,145	1,660	0.0184	0.9816	19.35
102.5	88,485	2,410	0.0272	0.9728	18.99
103.5	86,075	2,640	0.0307	0.9693	18.47
104.5	83,436	1,770	0.0212	0.9788	17.91
105.5	81,666	1,380	0.0169	0.9831	17.53
106.5	80,286	2,030	0.0253	0.9747	17.23
107.5	78,256	1,800	0.0230	0.9770	16.79
108.5	76,456	1,630	0.0213	0.9787	16.41
109.5	74,826	6,630	0.0886	0.9114	16.06
110.5	68,196	2,180	0.0320	0.9680	14.64
111.5	66,016	1,590	0.0241	0.9759	14.17
112.5					13.83

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2022

EXPERIENCE BAND 2003-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	105,675,114	363	0.0000	1.0000	100.00
0.5	105,093,713	26,481	0.0003	0.9997	100.00
1.5	77,199,819	268,587	0.0035	0.9965	99.97
2.5	76,113,610	476,388	0.0063	0.9937	99.63
3.5	72,554,403	338,725	0.0047	0.9953	99.00
4.5	69,188,356	863,977	0.0125	0.9875	98.54
5.5	64,090,909	689,413	0.0108	0.9892	97.31
6.5	64,934,613	454,063	0.0070	0.9930	96.26
7.5	62,853,531	555,455	0.0088	0.9912	95.59
8.5	60,630,369	887,878	0.0146	0.9854	94.75
9.5	57,537,879	1,072,594	0.0186	0.9814	93.36
10.5	52,733,999	1,849,493	0.0351	0.9649	91.62
11.5	52,098,679	2,600,936	0.0499	0.9501	88.40
12.5	50,756,334	3,806,029	0.0750	0.9250	83.99
13.5	47,394,925	3,206,048	0.0676	0.9324	77.69
14.5	40,846,555	1,328,159	0.0325	0.9675	72.44
15.5	34,942,257	1,079,313	0.0309	0.9691	70.08
16.5	28,272,848	963,728	0.0341	0.9659	67.92
17.5	27,668,142	541,299	0.0196	0.9804	65.60
18.5	24,667,829	247,518	0.0100	0.9900	64.32
19.5	21,893,179	228,847	0.0105	0.9895	63.67
20.5	20,534,097	190,680	0.0093	0.9907	63.01
21.5	19,604,114	390,553	0.0199	0.9801	62.42
22.5	18,608,175	640,936	0.0344	0.9656	61.18
23.5	17,258,223	366,036	0.0212	0.9788	59.07
24.5	15,943,016	243,973	0.0153	0.9847	57.82
25.5	14,860,157	231,761	0.0156	0.9844	56.93
26.5	13,730,845	220,590	0.0161	0.9839	56.05
27.5	12,497,952	174,455	0.0140	0.9860	55.15
28.5	11,955,899	168,529	0.0141	0.9859	54.38
29.5	11,240,914	156,543	0.0139	0.9861	53.61
30.5	10,744,397	195,197	0.0182	0.9818	52.86
31.5	10,508,434	149,927	0.0143	0.9857	51.90
32.5	9,590,106	521,246	0.0544	0.9456	51.16
33.5	8,715,430	155,613	0.0179	0.9821	48.38
34.5	8,455,456	168,873	0.0200	0.9800	47.52
35.5	8,665,672	166,012	0.0192	0.9808	46.57
36.5	8,097,298	155,040	0.0191	0.9809	45.68
37.5	7,981,507	155,085	0.0194	0.9806	44.80
38.5	7,919,394	147,845	0.0187	0.9813	43.93

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2022

EXPERIENCE BAND 2003-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	7,888,743	140,397	0.0178	0.9822	43.11
40.5	7,371,468	127,023	0.0172	0.9828	42.34
41.5	6,669,558	111,890	0.0168	0.9832	41.61
42.5	6,108,042	118,118	0.0193	0.9807	40.92
43.5	5,489,135	90,501	0.0165	0.9835	40.12
44.5	5,132,066	99,837	0.0195	0.9805	39.46
45.5	4,752,401	110,895	0.0233	0.9767	38.70
46.5	4,668,076	95,080	0.0204	0.9796	37.79
47.5	4,537,408	88,646	0.0195	0.9805	37.02
48.5	4,050,622	67,344	0.0166	0.9834	36.30
49.5	3,667,863	79,053	0.0216	0.9784	35.70
50.5	2,917,862	54,611	0.0187	0.9813	34.93
51.5	2,572,712	38,636	0.0150	0.9850	34.27
52.5	2,224,885	44,031	0.0198	0.9802	33.76
53.5	2,001,874	64,233	0.0321	0.9679	33.09
54.5	1,665,949	59,612	0.0358	0.9642	32.03
55.5	1,279,621	50,361	0.0394	0.9606	30.88
56.5	1,079,267	47,151	0.0437	0.9563	29.67
57.5	781,401	39,343	0.0503	0.9497	28.37
58.5	568,129	18,032	0.0317	0.9683	26.94
59.5	373,918	10,714	0.0287	0.9713	26.09
60.5	193,753	4,450	0.0230	0.9770	25.34
61.5	71,026	686	0.0097	0.9903	24.76
62.5	65,463	407	0.0062	0.9938	24.52
63.5	64,945	464	0.0071	0.9929	24.37
64.5	50,381	58	0.0012	0.9988	24.19
65.5	28,914	290	0.0100	0.9900	24.16
66.5	9,127	51	0.0056	0.9944	23.92
67.5	8,261	54	0.0065	0.9935	23.79
68.5	7,881		0.0000	1.0000	23.63
69.5	7,315		0.0000	1.0000	23.63
70.5	6,934		0.0000	1.0000	23.63
71.5	6,955		0.0000	1.0000	23.63
72.5	6,795		0.0000	1.0000	23.63
73.5	7,135		0.0000	1.0000	23.63
74.5	6,962		0.0000	1.0000	23.63
75.5	6,680	609	0.0912	0.9088	23.63
76.5	5,623	680	0.1209	0.8791	21.48
77.5	5,722	649	0.1134	0.8866	18.88
78.5	5,541	8	0.0014	0.9986	16.74

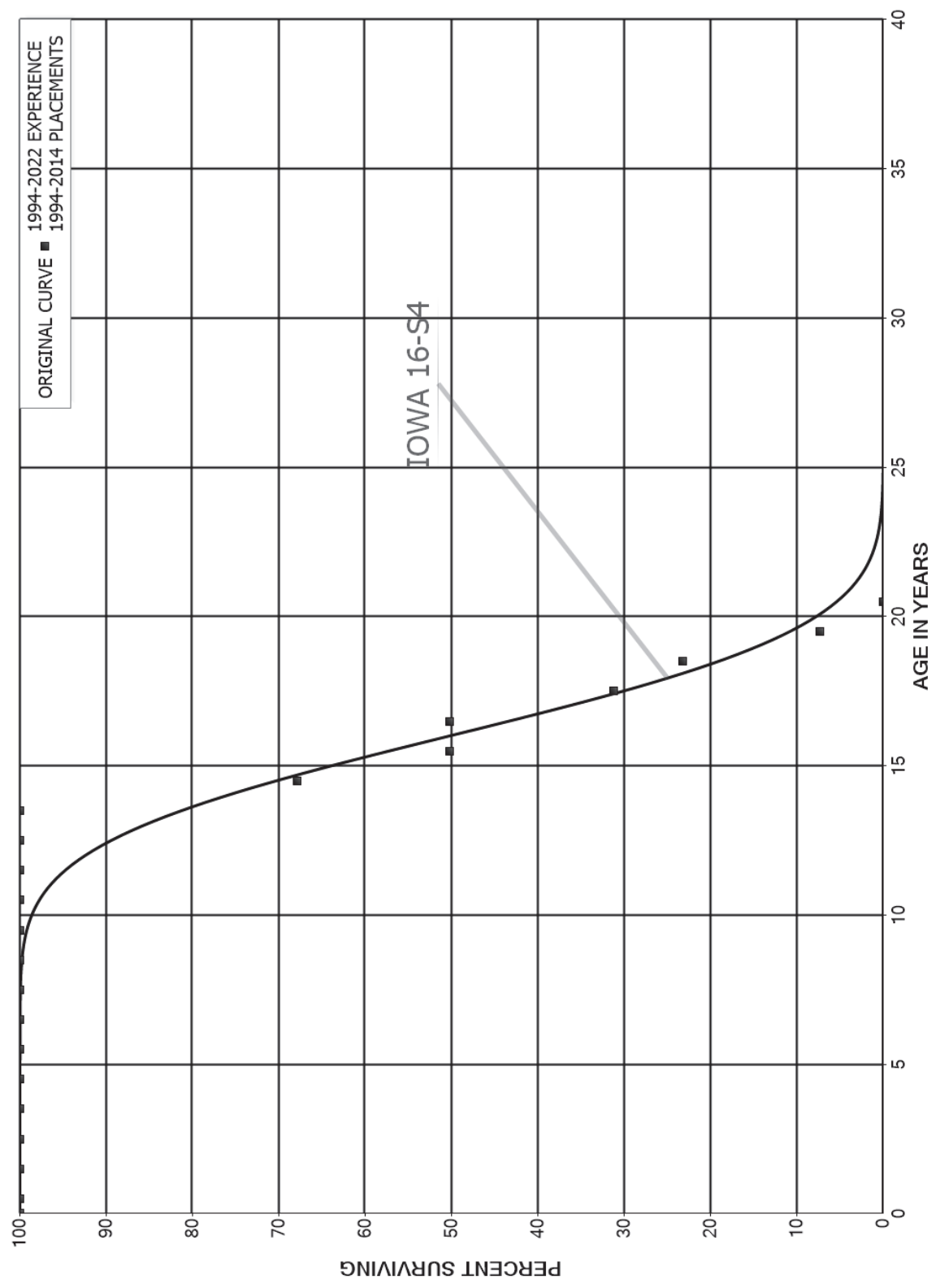
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2022			EXPERIENCE BAND 2003-2022			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	5,920	1	0.0002	0.9998	16.72	
80.5	5,919	377	0.0637	0.9363	16.71	
81.5	5,542	2,255	0.4069	0.5931	15.65	
82.5	3,326		0.0000	1.0000	9.28	
83.5	3,326	34	0.0102	0.9898	9.28	
84.5	3,313		0.0000	1.0000	9.19	
85.5	3,313		0.0000	1.0000	9.19	
86.5	3,313		0.0000	1.0000	9.19	
87.5	3,370		0.0000	1.0000	9.19	
88.5	3,399		0.0000	1.0000	9.19	
89.5	3,399	87	0.0256	0.9744	9.19	
90.5	3,312	148	0.0448	0.9552	8.95	
91.5	3,164	320	0.1013	0.8987	8.55	
92.5	121,585	1,451	0.0119	0.9881	7.68	
93.5	120,134	1,246	0.0104	0.9896	7.59	
94.5	118,888	1,739	0.0146	0.9854	7.51	
95.5	117,149	3,869	0.0330	0.9670	7.40	
96.5	113,280	9,143	0.0807	0.9193	7.16	
97.5	104,137	6,898	0.0662	0.9338	6.58	
98.5	97,239	2,496	0.0257	0.9743	6.15	
99.5	94,743	2,878	0.0304	0.9696	5.99	
100.5	91,864	1,720	0.0187	0.9813	5.81	
101.5	90,145	1,660	0.0184	0.9816	5.70	
102.5	88,485	2,410	0.0272	0.9728	5.59	
103.5	86,075	2,640	0.0307	0.9693	5.44	
104.5	83,436	1,770	0.0212	0.9788	5.27	
105.5	81,666	1,380	0.0169	0.9831	5.16	
106.5	80,286	2,030	0.0253	0.9747	5.07	
107.5	78,256	1,800	0.0230	0.9770	4.95	
108.5	76,456	1,630	0.0213	0.9787	4.83	
109.5	74,826	6,630	0.0886	0.9114	4.73	
110.5	68,196	2,180	0.0320	0.9680	4.31	
111.5	66,016	1,590	0.0241	0.9759	4.17	
112.5					4.07	

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 381.10 METERS - ELECTRIC  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





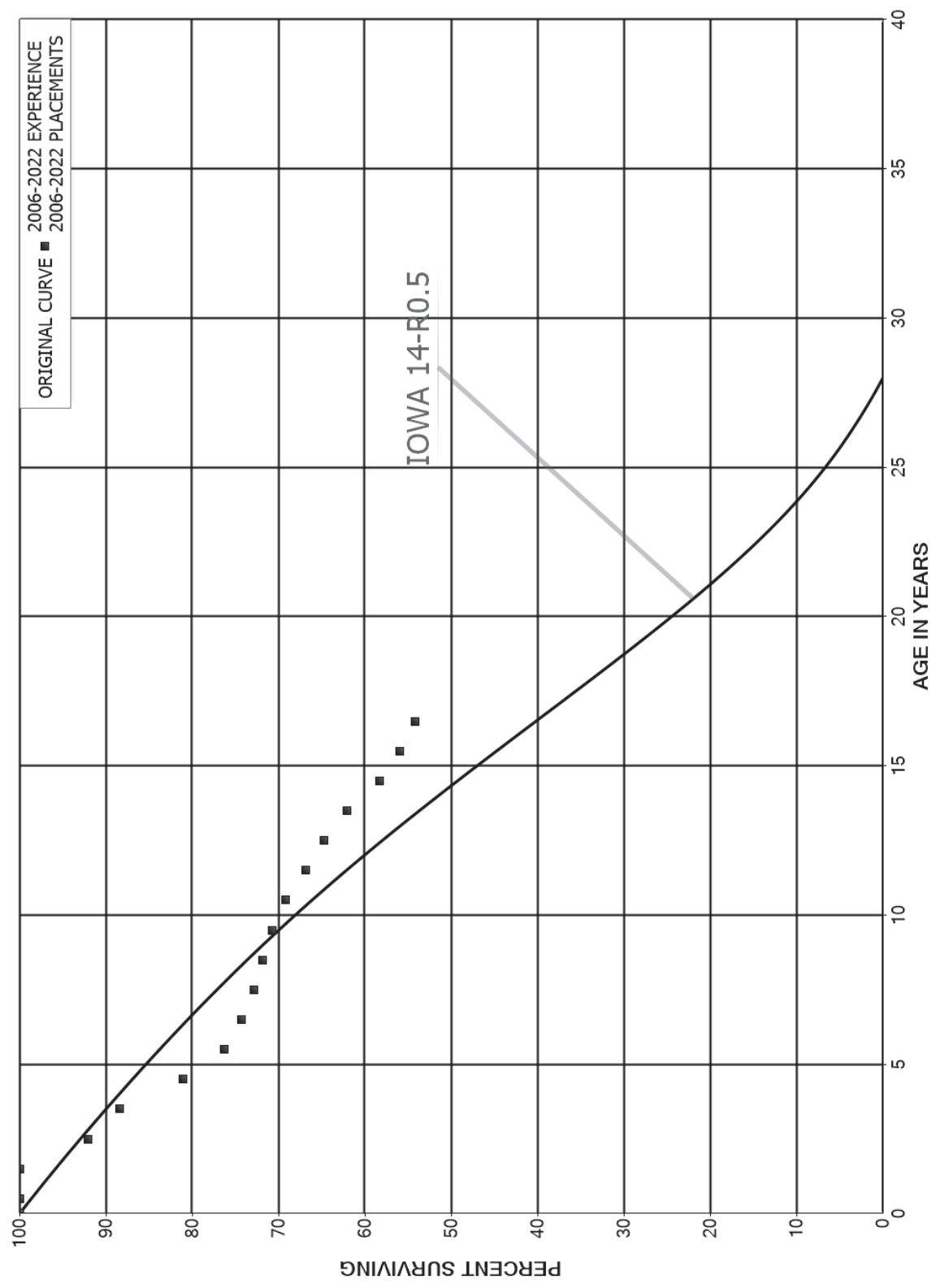
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.10 METERS - ELECTRIC

ORIGINAL LIFE TABLE

PLACEMENT BAND 1994-2014			EXPERIENCE BAND 1994-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,231,438		0.0000	1.0000	100.00
0.5	2,231,438		0.0000	1.0000	100.00
1.5	2,231,438		0.0000	1.0000	100.00
2.5	2,203,945		0.0000	1.0000	100.00
3.5	2,203,945		0.0000	1.0000	100.00
4.5	2,203,945		0.0000	1.0000	100.00
5.5	2,203,945		0.0000	1.0000	100.00
6.5	2,203,945		0.0000	1.0000	100.00
7.5	2,203,945		0.0000	1.0000	100.00
8.5	507,007		0.0000	1.0000	100.00
9.5	507,007		0.0000	1.0000	100.00
10.5	507,007		0.0000	1.0000	100.00
11.5	507,007		0.0000	1.0000	100.00
12.5	507,007		0.0000	1.0000	100.00
13.5	507,007	162,981	0.3215	0.6785	100.00
14.5	344,026	89,373	0.2598	0.7402	67.85
15.5	254,653		0.0000	1.0000	50.23
16.5	254,653	96,599	0.3793	0.6207	50.23
17.5	158,054	40,588	0.2568	0.7432	31.17
18.5	117,466	80,578	0.6860	0.3140	23.17
19.5	36,888	36,888	1.0000		7.28
20.5					

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 381.20 METERS - ERT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



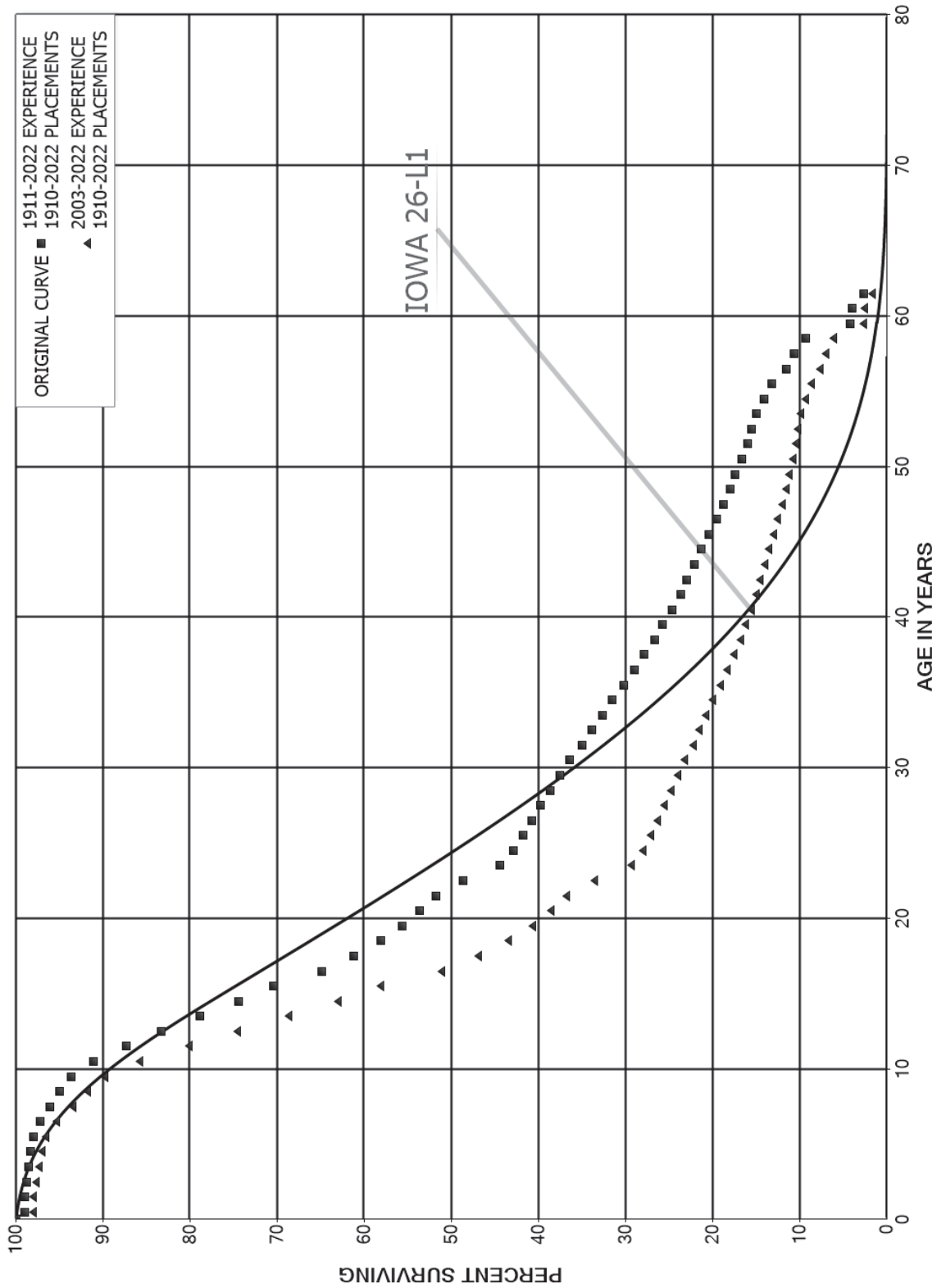
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.20 METERS - ERT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2006-2022			EXPERIENCE BAND 2006-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	61,183,751		0.0000	1.0000	100.00
0.5	59,713,691	18,697	0.0003	0.9997	100.00
1.5	55,234,952	4,338,344	0.0785	0.9215	99.97
2.5	49,314,271	1,992,852	0.0404	0.9596	92.12
3.5	45,939,944	3,797,990	0.0827	0.9173	88.39
4.5	41,944,971	2,483,292	0.0592	0.9408	81.09
5.5	39,025,566	1,008,737	0.0258	0.9742	76.29
6.5	38,016,829	764,390	0.0201	0.9799	74.31
7.5	37,252,439	489,321	0.0131	0.9869	72.82
8.5	36,763,118	594,698	0.0162	0.9838	71.86
9.5	33,485,222	737,071	0.0220	0.9780	70.70
10.5	32,119,352	1,051,945	0.0328	0.9672	69.14
11.5	30,570,483	997,332	0.0326	0.9674	66.88
12.5	28,999,277	1,191,622	0.0411	0.9589	64.70
13.5	18,866,985	1,126,647	0.0597	0.9403	62.04
14.5	11,844,498	473,590	0.0400	0.9600	58.33
15.5	8,595,807	286,686	0.0334	0.9666	56.00
16.5					54.13

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 382.00 METER INSTALLATIONS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2022

EXPERIENCE BAND 1911-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	121,079,997	1,244,242	0.0103	0.9897	100.00
0.5	114,747,369	66,493	0.0006	0.9994	98.97
1.5	103,262,583	234,252	0.0023	0.9977	98.92
2.5	103,051,795	230,434	0.0022	0.9978	98.69
3.5	98,865,222	213,788	0.0022	0.9978	98.47
4.5	95,634,686	355,688	0.0037	0.9963	98.26
5.5	90,367,921	678,566	0.0075	0.9925	97.89
6.5	89,714,474	1,055,779	0.0118	0.9882	97.16
7.5	86,350,145	962,961	0.0112	0.9888	96.01
8.5	83,298,208	1,141,109	0.0137	0.9863	94.94
9.5	79,182,140	2,177,521	0.0275	0.9725	93.64
10.5	73,153,547	3,055,702	0.0418	0.9582	91.07
11.5	70,152,726	3,201,838	0.0456	0.9544	87.26
12.5	67,054,505	3,565,452	0.0532	0.9468	83.28
13.5	63,595,091	3,572,899	0.0562	0.9438	78.85
14.5	60,130,070	3,217,311	0.0535	0.9465	74.42
15.5	55,592,400	4,429,618	0.0797	0.9203	70.44
16.5	51,219,896	2,854,089	0.0557	0.9443	64.83
17.5	48,323,537	2,481,686	0.0514	0.9486	61.21
18.5	41,595,267	1,793,015	0.0431	0.9569	58.07
19.5	39,809,441	1,419,913	0.0357	0.9643	55.57
20.5	38,319,004	1,331,558	0.0347	0.9653	53.59
21.5	34,562,264	2,081,794	0.0602	0.9398	51.72
22.5	30,591,058	2,652,144	0.0867	0.9133	48.61
23.5	27,251,809	950,795	0.0349	0.9651	44.39
24.5	26,314,630	692,761	0.0263	0.9737	42.85
25.5	25,409,614	626,318	0.0246	0.9754	41.72
26.5	24,800,481	618,417	0.0249	0.9751	40.69
27.5	23,590,860	607,297	0.0257	0.9743	39.67
28.5	23,004,318	675,609	0.0294	0.9706	38.65
29.5	22,343,927	666,533	0.0298	0.9702	37.52
30.5	20,319,589	804,436	0.0396	0.9604	36.40
31.5	18,864,456	576,983	0.0306	0.9694	34.96
32.5	16,027,924	577,335	0.0360	0.9640	33.89
33.5	13,727,793	482,844	0.0352	0.9648	32.67
34.5	12,242,186	521,750	0.0426	0.9574	31.52
35.5	11,725,147	457,764	0.0390	0.9610	30.18
36.5	10,160,671	406,580	0.0400	0.9600	29.00
37.5	9,758,850	411,880	0.0422	0.9578	27.84
38.5	9,350,947	340,295	0.0364	0.9636	26.66

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2022			EXPERIENCE BAND 1911-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,575,944	375,963	0.0438	0.9562	25.69
40.5	7,712,739	287,081	0.0372	0.9628	24.57
41.5	6,557,977	210,496	0.0321	0.9679	23.65
42.5	5,538,283	210,646	0.0380	0.9620	22.89
43.5	5,340,193	187,867	0.0352	0.9648	22.02
44.5	4,632,288	180,704	0.0390	0.9610	21.25
45.5	4,464,102	192,565	0.0431	0.9569	20.42
46.5	4,028,576	164,894	0.0409	0.9591	19.54
47.5	3,871,344	156,261	0.0404	0.9596	18.74
48.5	3,512,953	121,719	0.0346	0.9654	17.98
49.5	3,104,197	131,998	0.0425	0.9575	17.36
50.5	2,308,415	90,699	0.0393	0.9607	16.62
51.5	2,112,176	54,307	0.0257	0.9743	15.97
52.5	1,860,782	66,920	0.0360	0.9640	15.56
53.5	1,796,447	110,494	0.0615	0.9385	15.00
54.5	1,371,367	89,472	0.0652	0.9348	14.07
55.5	963,311	121,618	0.1262	0.8738	13.16
56.5	715,237	57,869	0.0809	0.9191	11.50
57.5	521,141	64,830	0.1244	0.8756	10.57
58.5	374,081	205,927	0.5505	0.4495	9.25
59.5	168,378	10,272	0.0610	0.9390	4.16
60.5	158,278	52,494	0.3317	0.6683	3.90
61.5	104,551	951	0.0091	0.9909	2.61
62.5	97,732	113	0.0012	0.9988	2.59
63.5	79,833	68	0.0009	0.9991	2.58
64.5	61,644	86	0.0014	0.9986	2.58
65.5	24,124	14	0.0006	0.9994	2.58
66.5	17,970	29	0.0016	0.9984	2.58
67.5	17,941	66	0.0037	0.9963	2.57
68.5	17,889	14	0.0008	0.9992	2.56
69.5	17,882		0.0000	1.0000	2.56
70.5	17,882		0.0000	1.0000	2.56
71.5	17,882		0.0000	1.0000	2.56
72.5	17,882	7	0.0004	0.9996	2.56
73.5	17,875		0.0000	1.0000	2.56
74.5	17,875		0.0000	1.0000	2.56
75.5	17,875		0.0000	1.0000	2.56
76.5	17,875		0.0000	1.0000	2.56
77.5	17,875		0.0000	1.0000	2.56
78.5	17,875		0.0000	1.0000	2.56

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2022			EXPERIENCE BAND 1911-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	17,875		0.0000	1.0000	2.56
80.5	17,875		0.0000	1.0000	2.56
81.5	17,875		0.0000	1.0000	2.56
82.5	17,875		0.0000	1.0000	2.56
83.5	17,875		0.0000	1.0000	2.56
84.5	17,875		0.0000	1.0000	2.56
85.5	17,875		0.0000	1.0000	2.56
86.5	17,875		0.0000	1.0000	2.56
87.5	17,875		0.0000	1.0000	2.56
88.5	17,875		0.0000	1.0000	2.56
89.5	17,875	7	0.0004	0.9996	2.56
90.5	17,868		0.0000	1.0000	2.56
91.5	17,868		0.0000	1.0000	2.56
92.5	17,868		0.0000	1.0000	2.56
93.5	17,868	69	0.0039	0.9961	2.56
94.5	17,799	188	0.0105	0.9895	2.55
95.5	17,611	808	0.0459	0.9541	2.52
96.5	16,804	1,136	0.0676	0.9324	2.41
97.5	15,668		0.0000	1.0000	2.24
98.5	15,668	850	0.0542	0.9458	2.24
99.5	14,818	13,591	0.9172	0.0828	2.12
100.5	1,227	830	0.6762	0.3238	0.18
101.5	398	398	1.0000		0.06
102.5					

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2022

EXPERIENCE BAND 2003-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	57,461,304	1,232,850	0.0215	0.9785	100.00
0.5	56,197,331	30,004	0.0005	0.9995	97.85
1.5	47,631,129	149,900	0.0031	0.9969	97.80
2.5	50,125,736	180,180	0.0036	0.9964	97.49
3.5	48,766,537	133,653	0.0027	0.9973	97.14
4.5	48,755,069	223,415	0.0046	0.9954	96.88
5.5	47,002,327	618,679	0.0132	0.9868	96.43
6.5	49,804,836	974,201	0.0196	0.9804	95.16
7.5	49,119,624	887,907	0.0181	0.9819	93.30
8.5	48,638,899	1,069,337	0.0220	0.9780	91.62
9.5	46,927,301	2,063,856	0.0440	0.9560	89.60
10.5	43,374,336	2,868,103	0.0661	0.9339	85.66
11.5	42,927,510	3,028,933	0.0706	0.9294	80.00
12.5	42,401,075	3,358,511	0.0792	0.9208	74.35
13.5	41,201,423	3,398,907	0.0825	0.9175	68.46
14.5	39,324,020	3,078,731	0.0783	0.9217	62.82
15.5	35,859,526	4,310,407	0.1202	0.8798	57.90
16.5	33,305,711	2,720,978	0.0817	0.9183	50.94
17.5	31,574,372	2,331,032	0.0738	0.9262	46.78
18.5	25,753,866	1,656,074	0.0643	0.9357	43.32
19.5	24,712,766	1,295,571	0.0524	0.9476	40.54
20.5	24,355,801	1,159,024	0.0476	0.9524	38.41
21.5	22,355,781	1,934,492	0.0865	0.9135	36.58
22.5	19,908,540	2,503,634	0.1258	0.8742	33.42
23.5	17,640,229	822,319	0.0466	0.9534	29.22
24.5	17,745,664	550,341	0.0310	0.9690	27.85
25.5	17,449,218	515,545	0.0295	0.9705	26.99
26.5	17,310,064	509,437	0.0294	0.9706	26.19
27.5	16,334,141	492,830	0.0302	0.9698	25.42
28.5	16,558,412	549,640	0.0332	0.9668	24.65
29.5	16,618,455	546,146	0.0329	0.9671	23.84
30.5	15,599,080	650,400	0.0417	0.9583	23.05
31.5	14,817,500	456,662	0.0308	0.9692	22.09
32.5	12,474,529	469,435	0.0376	0.9624	21.41
33.5	10,559,230	391,058	0.0370	0.9630	20.61
34.5	9,641,153	443,790	0.0460	0.9540	19.84
35.5	9,653,763	390,331	0.0404	0.9596	18.93
36.5	8,554,525	356,420	0.0417	0.9583	18.16
37.5	8,591,912	369,567	0.0430	0.9570	17.41
38.5	8,545,963	312,844	0.0366	0.9634	16.66



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2022			EXPERIENCE BAND 2003-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,059,044	350,163	0.0434	0.9566	16.05
40.5	7,429,430	263,149	0.0354	0.9646	15.35
41.5	6,353,264	196,722	0.0310	0.9690	14.81
42.5	5,405,741	196,606	0.0364	0.9636	14.35
43.5	5,227,172	175,693	0.0336	0.9664	13.83
44.5	4,538,672	167,929	0.0370	0.9630	13.36
45.5	4,408,255	179,481	0.0407	0.9593	12.87
46.5	3,987,556	150,893	0.0378	0.9622	12.34
47.5	3,832,917	142,674	0.0372	0.9628	11.88
48.5	3,476,005	107,876	0.0310	0.9690	11.43
49.5	3,069,544	120,576	0.0393	0.9607	11.08
50.5	2,277,101	79,422	0.0349	0.9651	10.64
51.5	2,084,445	46,196	0.0222	0.9778	10.27
52.5	1,836,246	61,863	0.0337	0.9663	10.05
53.5	1,774,299	106,955	0.0603	0.9397	9.71
54.5	1,350,783	86,996	0.0644	0.9356	9.12
55.5	943,854	119,846	0.1270	0.8730	8.53
56.5	696,446	56,927	0.0817	0.9183	7.45
57.5	502,613	64,245	0.1278	0.8722	6.84
58.5	355,618	205,584	0.5781	0.4219	5.97
59.5	150,034	10,001	0.0667	0.9333	2.52
60.5	140,033	52,366	0.3740	0.6260	2.35
61.5	86,266	799	0.0093	0.9907	1.47
62.5	79,509		0.0000	1.0000	1.46
63.5	61,702		0.0000	1.0000	1.46
64.5	43,581		0.0000	1.0000	1.46
65.5	6,140		0.0000	1.0000	1.46
66.5					1.46
67.5					
68.5					
69.5					
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

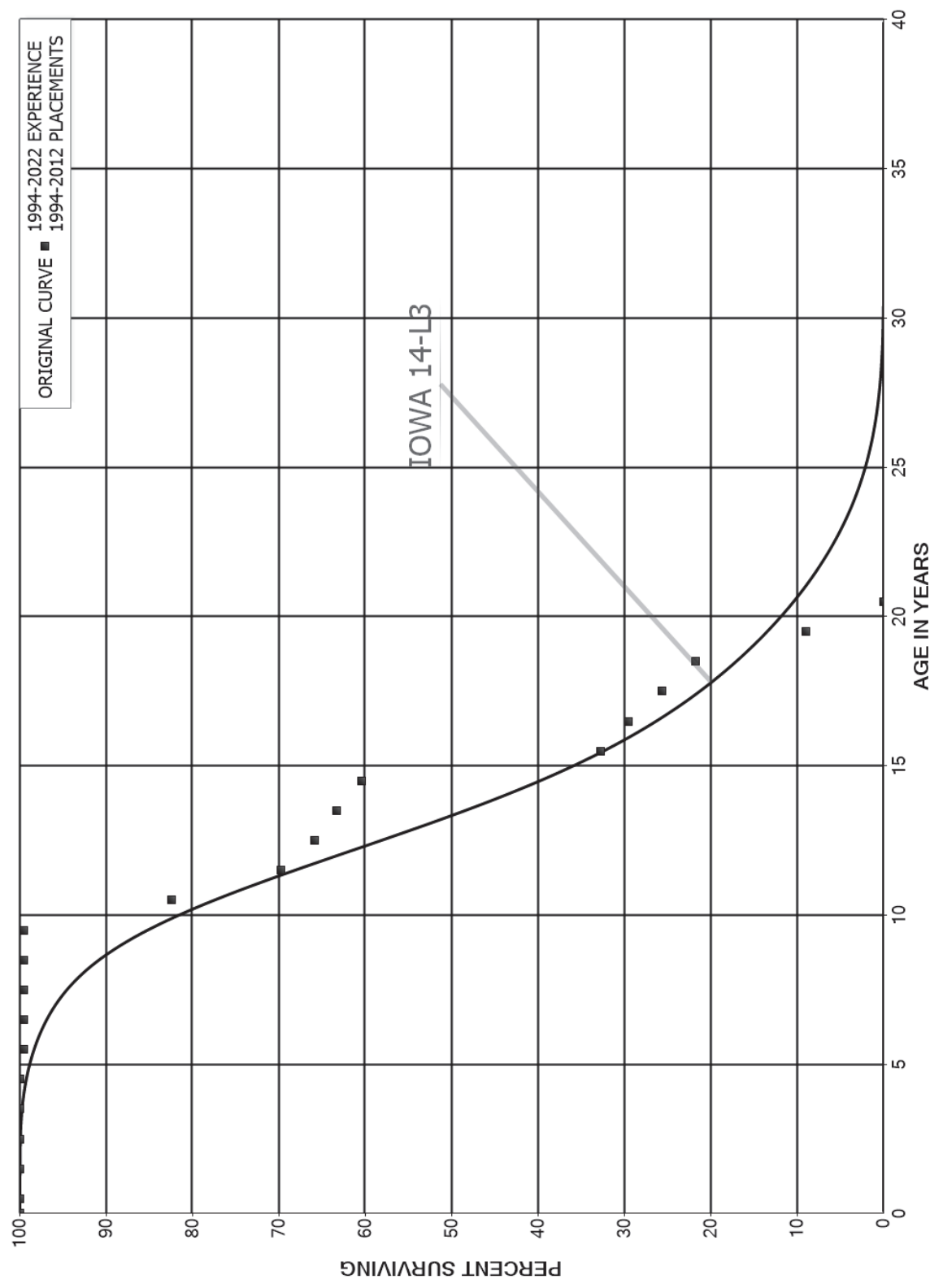
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2022			EXPERIENCE BAND 2003-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	7		0.0000		
80.5	7		0.0000		
81.5	7		0.0000		
82.5	7		0.0000		
83.5	7		0.0000		
84.5	7		0.0000		
85.5	7		0.0000		
86.5	7		0.0000		
87.5	14		0.0000		
88.5	14		0.0000		
89.5	14	7	0.5000		
90.5	7		0.0000		
91.5	7		0.0000		
92.5	17,868		0.0000		
93.5	17,868	69	0.0039		
94.5	17,799	188	0.0105		
95.5	17,611	808	0.0459		
96.5	16,804	1,136	0.0676		
97.5	15,668		0.0000		
98.5	15,668	850	0.0542		
99.5	14,818	13,591	0.9172		
100.5	1,227	830	0.6762		
101.5	398	398	1.0000		
102.5					

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 382.10 METER INSTALLATIONS - ELECTRIC  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



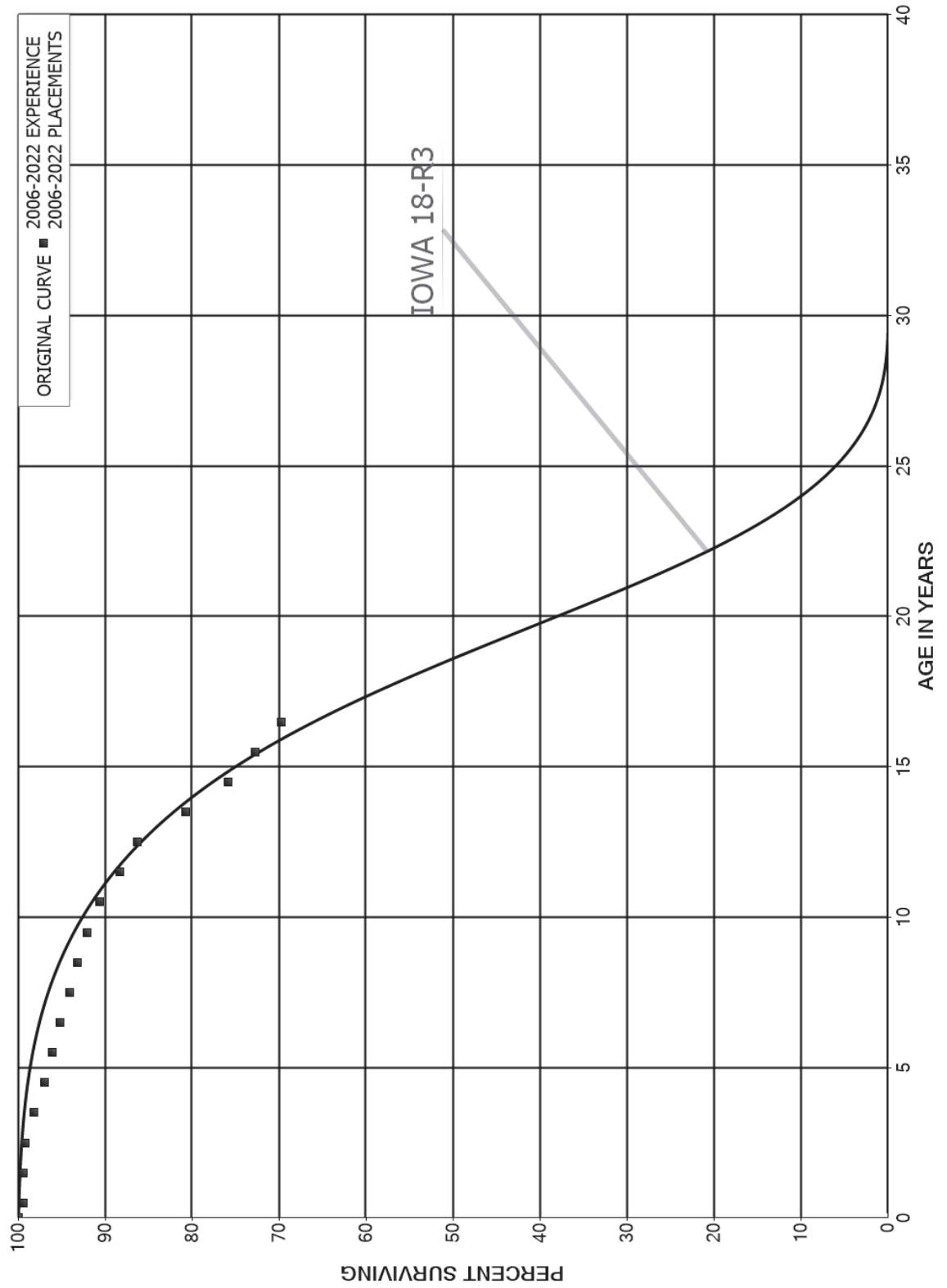
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.10 METER INSTALLATIONS - ELECTRIC

ORIGINAL LIFE TABLE

PLACEMENT BAND 1994-2012			EXPERIENCE BAND 1994-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	999,397		0.0000	1.0000	100.00
0.5	999,397		0.0000	1.0000	100.00
1.5	999,397		0.0000	1.0000	100.00
2.5	999,397		0.0000	1.0000	100.00
3.5	999,397		0.0000	1.0000	100.00
4.5	999,397	4,559	0.0046	0.9954	100.00
5.5	994,838		0.0000	1.0000	99.54
6.5	994,838		0.0000	1.0000	99.54
7.5	994,838		0.0000	1.0000	99.54
8.5	994,838		0.0000	1.0000	99.54
9.5	994,838	171,671	0.1726	0.8274	99.54
10.5	342,147	52,429	0.1532	0.8468	82.37
11.5	289,718	16,259	0.0561	0.9439	69.74
12.5	273,459	10,720	0.0392	0.9608	65.83
13.5	262,739	11,880	0.0452	0.9548	63.25
14.5	250,859	114,955	0.4582	0.5418	60.39
15.5	135,904	13,170	0.0969	0.9031	32.72
16.5	122,734	16,477	0.1342	0.8658	29.55
17.5	106,257	15,824	0.1489	0.8511	25.58
18.5	90,433	53,374	0.5902	0.4098	21.77
19.5	37,059	37,059	1.0000		8.92
20.5					

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 382.20 METER INSTALLATIONS - ERT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



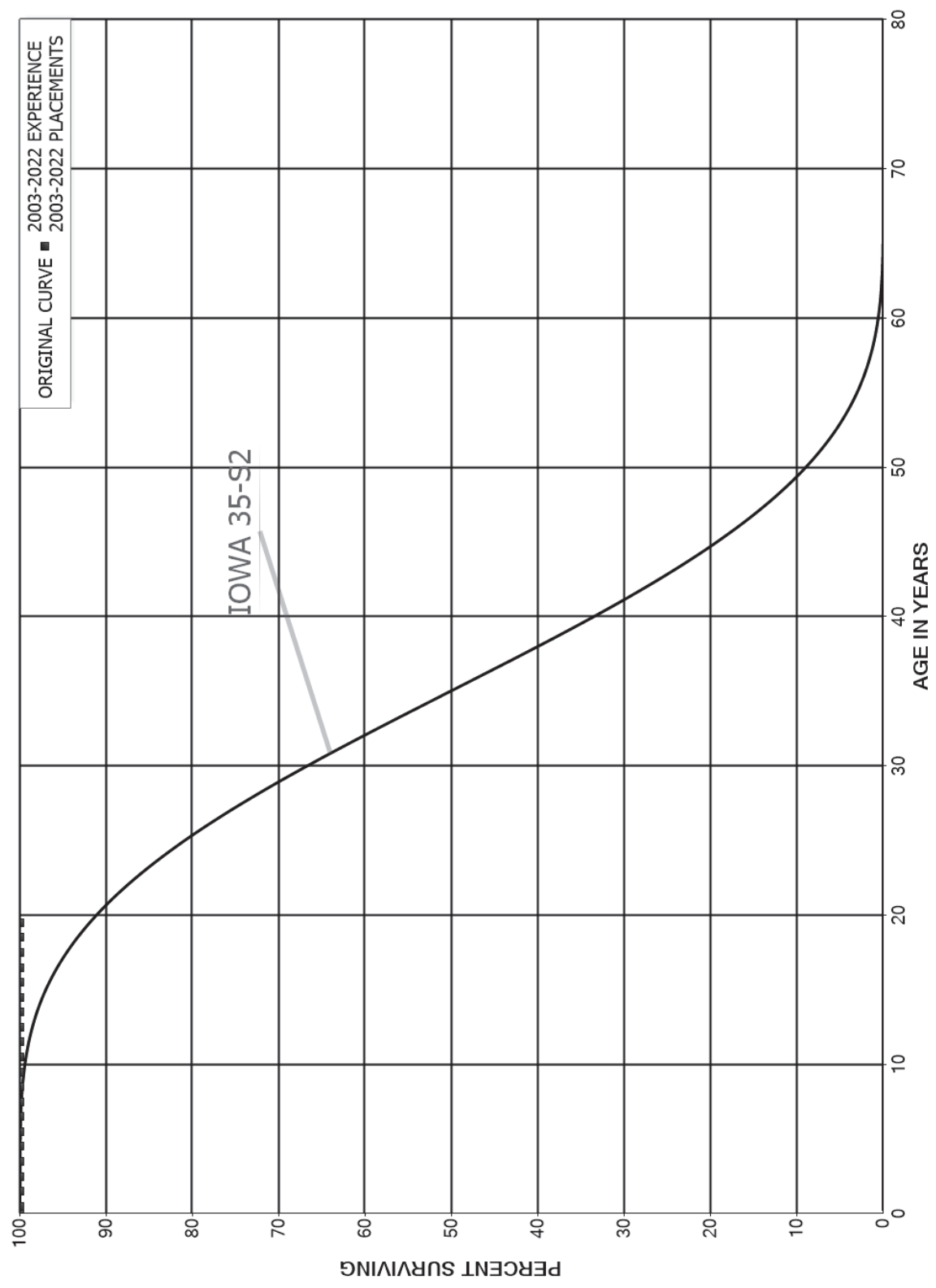
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.20 METER INSTALLATIONS - ERT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2006-2022			EXPERIENCE BAND 2006-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	14,050,833	84,095	0.0060	0.9940	100.00
0.5	11,529,986	4,140	0.0004	0.9996	99.40
1.5	10,543,892	22,592	0.0021	0.9979	99.37
2.5	9,954,361	93,865	0.0094	0.9906	99.15
3.5	9,860,496	129,762	0.0132	0.9868	98.22
4.5	9,730,734	87,139	0.0090	0.9910	96.93
5.5	9,643,595	92,939	0.0096	0.9904	96.06
6.5	9,550,657	103,554	0.0108	0.9892	95.13
7.5	9,447,103	96,509	0.0102	0.9898	94.10
8.5	9,350,594	107,272	0.0115	0.9885	93.14
9.5	9,243,321	143,695	0.0155	0.9845	92.07
10.5	9,099,626	231,746	0.0255	0.9745	90.64
11.5	8,867,880	210,110	0.0237	0.9763	88.33
12.5	4,046,349	258,619	0.0639	0.9361	86.24
13.5	3,787,730	229,843	0.0607	0.9393	80.73
14.5	2,486,865	103,150	0.0415	0.9585	75.83
15.5	925,982	37,794	0.0408	0.9592	72.68
16.5					69.72

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 383.00 HOUSE REGULATORS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

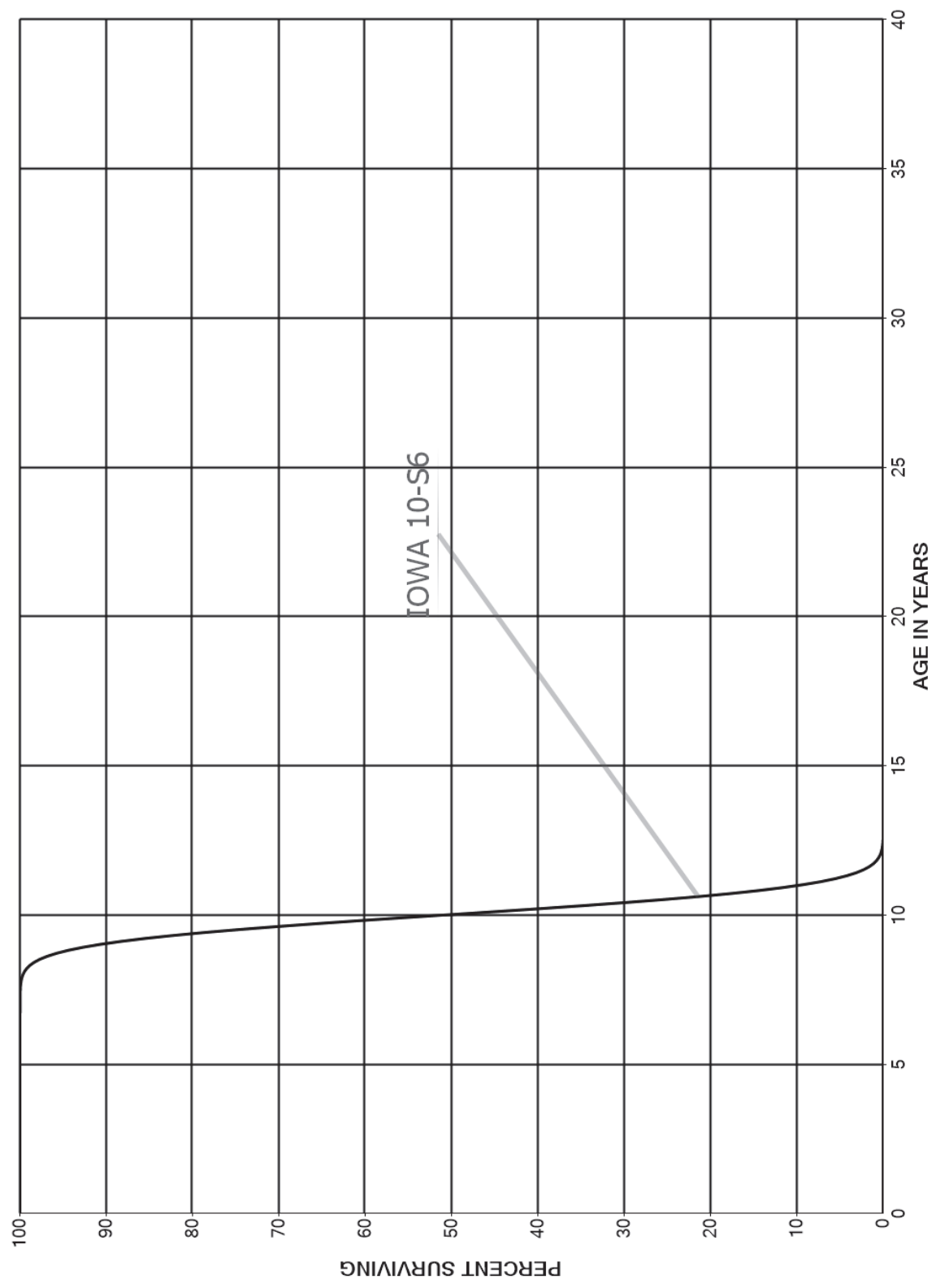
ACCOUNT 383.00 HOUSE REGULATORS

ORIGINAL LIFE TABLE

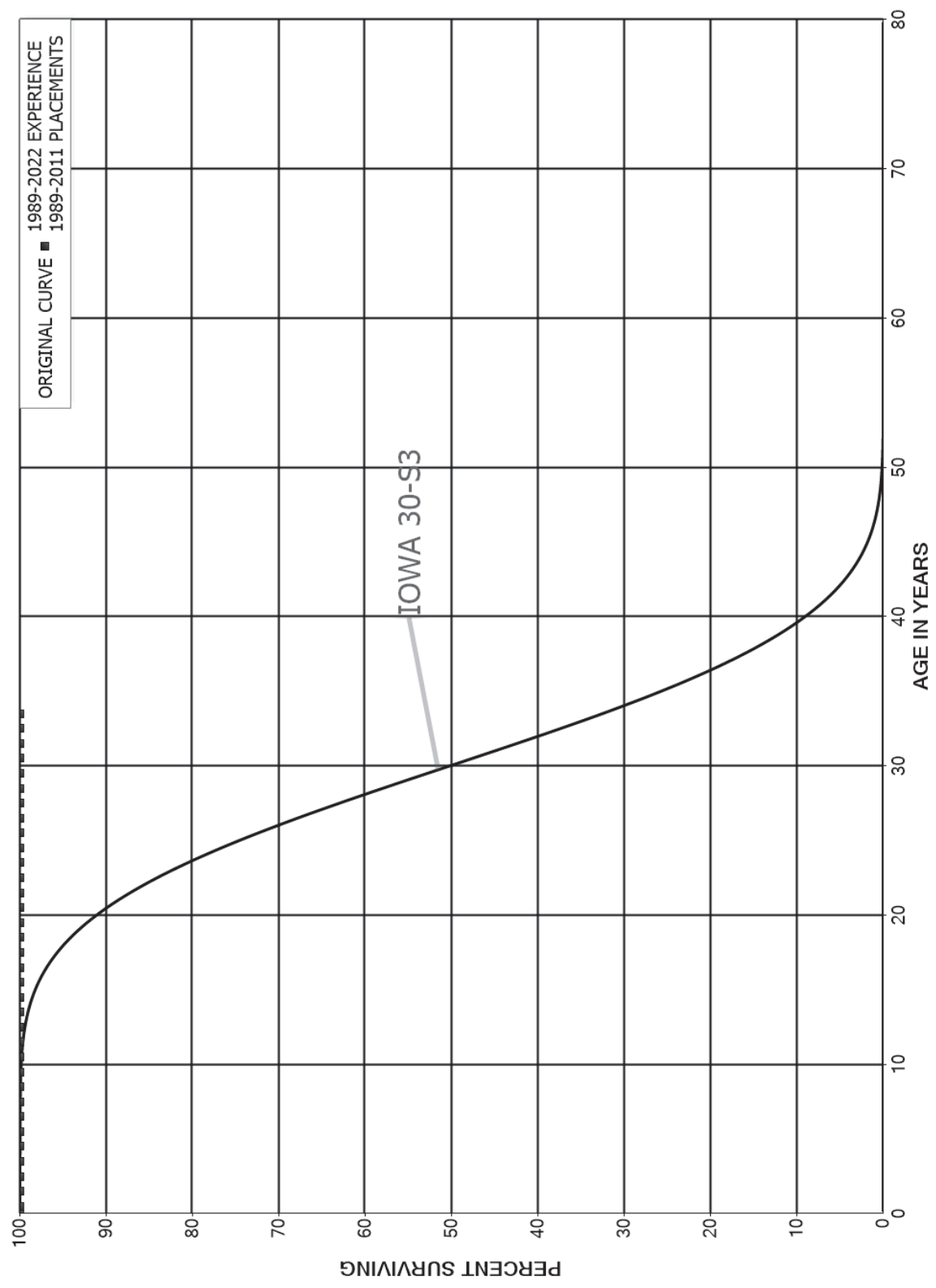
PLACEMENT BAND 2003-2022			EXPERIENCE BAND 2003-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,820,769		0.0000	1.0000	100.00
0.5	2,679,217		0.0000	1.0000	100.00
1.5	2,553,748		0.0000	1.0000	100.00
2.5	2,419,709		0.0000	1.0000	100.00
3.5	2,199,701		0.0000	1.0000	100.00
4.5	1,877,440		0.0000	1.0000	100.00
5.5	1,678,311		0.0000	1.0000	100.00
6.5	1,500,612		0.0000	1.0000	100.00
7.5	1,280,026		0.0000	1.0000	100.00
8.5	1,110,626		0.0000	1.0000	100.00
9.5	775,208		0.0000	1.0000	100.00
10.5	619,596		0.0000	1.0000	100.00
11.5	569,858		0.0000	1.0000	100.00
12.5	487,625		0.0000	1.0000	100.00
13.5	451,511		0.0000	1.0000	100.00
14.5	369,806		0.0000	1.0000	100.00
15.5	263,639		0.0000	1.0000	100.00
16.5	163,930		0.0000	1.0000	100.00
17.5	52,920		0.0000	1.0000	100.00
18.5	1,945		0.0000	1.0000	100.00
19.5					100.00



NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 386.00 OTHER PROPERTY ON CUSTOMERS' PREMISES  
 SMOOTH SURVIVOR CURVE



NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 387.10 OTHER EQUIPMENT - CATHODIC PROTECTION TESTING  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



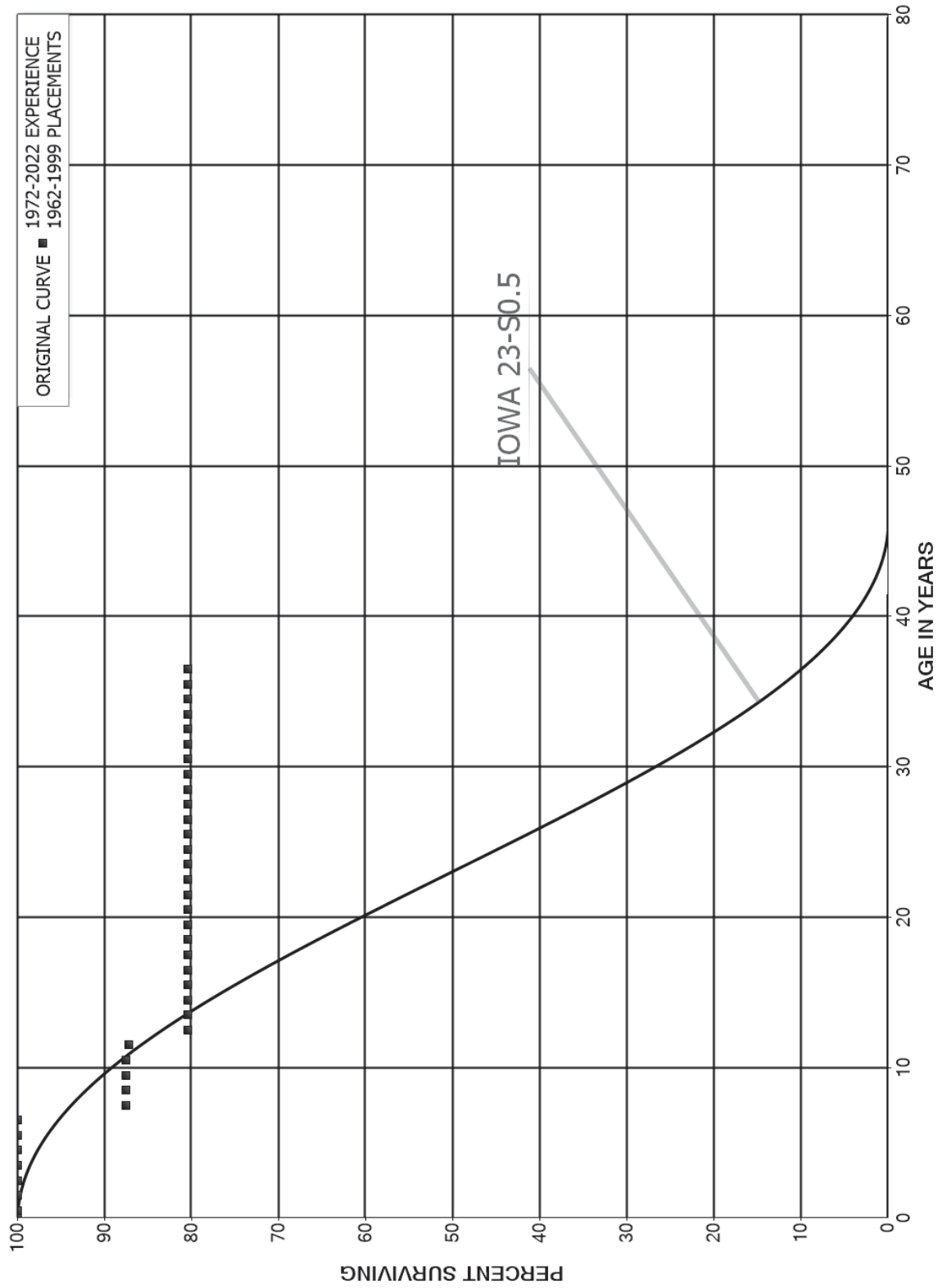
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.10 OTHER EQUIPMENT - CATHODIC PROTECTION TESTING

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2011			EXPERIENCE BAND 1989-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	173,859		0.0000	1.0000	100.00
0.5	173,859		0.0000	1.0000	100.00
1.5	173,859		0.0000	1.0000	100.00
2.5	173,859		0.0000	1.0000	100.00
3.5	173,859		0.0000	1.0000	100.00
4.5	173,859		0.0000	1.0000	100.00
5.5	173,859		0.0000	1.0000	100.00
6.5	173,859		0.0000	1.0000	100.00
7.5	173,859		0.0000	1.0000	100.00
8.5	173,859		0.0000	1.0000	100.00
9.5	173,859		0.0000	1.0000	100.00
10.5	173,859		0.0000	1.0000	100.00
11.5	138,950		0.0000	1.0000	100.00
12.5	138,950		0.0000	1.0000	100.00
13.5	138,950		0.0000	1.0000	100.00
14.5	138,950		0.0000	1.0000	100.00
15.5	138,950		0.0000	1.0000	100.00
16.5	138,950		0.0000	1.0000	100.00
17.5	129,084		0.0000	1.0000	100.00
18.5	129,084		0.0000	1.0000	100.00
19.5	129,084		0.0000	1.0000	100.00
20.5	129,084		0.0000	1.0000	100.00
21.5	129,084		0.0000	1.0000	100.00
22.5	129,084		0.0000	1.0000	100.00
23.5	129,084		0.0000	1.0000	100.00
24.5	129,084		0.0000	1.0000	100.00
25.5	129,084		0.0000	1.0000	100.00
26.5	129,084		0.0000	1.0000	100.00
27.5	129,084		0.0000	1.0000	100.00
28.5	129,084		0.0000	1.0000	100.00
29.5	129,084		0.0000	1.0000	100.00
30.5	46,148		0.0000	1.0000	100.00
31.5	27,929		0.0000	1.0000	100.00
32.5	18,825		0.0000	1.0000	100.00
33.5					100.00

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 387.20 OTHER EQUIPMENT - CALORIMETERS AT GATE STATION  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.20 OTHER EQUIPMENT - CALORIMETERS AT GATE STATION

ORIGINAL LIFE TABLE

PLACEMENT BAND 1962-1999			EXPERIENCE BAND 1972-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	107,454		0.0000	1.0000	100.00
0.5	107,454	25	0.0002	0.9998	100.00
1.5	107,454		0.0000	1.0000	99.98
2.5	107,454		0.0000	1.0000	99.98
3.5	107,454		0.0000	1.0000	99.98
4.5	107,454		0.0000	1.0000	99.98
5.5	107,454		0.0000	1.0000	99.98
6.5	107,454	13,401	0.1247	0.8753	99.98
7.5	107,824		0.0000	1.0000	87.51
8.5	115,988		0.0000	1.0000	87.51
9.5	116,853		0.0000	1.0000	87.51
10.5	104,958	370	0.0035	0.9965	87.51
11.5	104,588	8,164	0.0781	0.9219	87.20
12.5	96,424		0.0000	1.0000	80.39
13.5	96,424		0.0000	1.0000	80.39
14.5	96,424		0.0000	1.0000	80.39
15.5	96,424		0.0000	1.0000	80.39
16.5	96,424		0.0000	1.0000	80.39
17.5	96,424		0.0000	1.0000	80.39
18.5	96,424		0.0000	1.0000	80.39
19.5	96,424		0.0000	1.0000	80.39
20.5	96,424		0.0000	1.0000	80.39
21.5	96,424		0.0000	1.0000	80.39
22.5	96,424		0.0000	1.0000	80.39
23.5	93,709		0.0000	1.0000	80.39
24.5	89,269		0.0000	1.0000	80.39
25.5	76,317		0.0000	1.0000	80.39
26.5	73,945		0.0000	1.0000	80.39
27.5	71,691		0.0000	1.0000	80.39
28.5	64,033		0.0000	1.0000	80.39
29.5	59,167		0.0000	1.0000	80.39
30.5	59,167		0.0000	1.0000	80.39
31.5	37,876		0.0000	1.0000	80.39
32.5	37,624		0.0000	1.0000	80.39
33.5	37,624		0.0000	1.0000	80.39
34.5	37,624		0.0000	1.0000	80.39
35.5	37,624		0.0000	1.0000	80.39
36.5	11,859		0.0000	1.0000	80.39
37.5	11,859		0.0000	1.0000	80.39
38.5	11,859		0.0000	1.0000	80.39

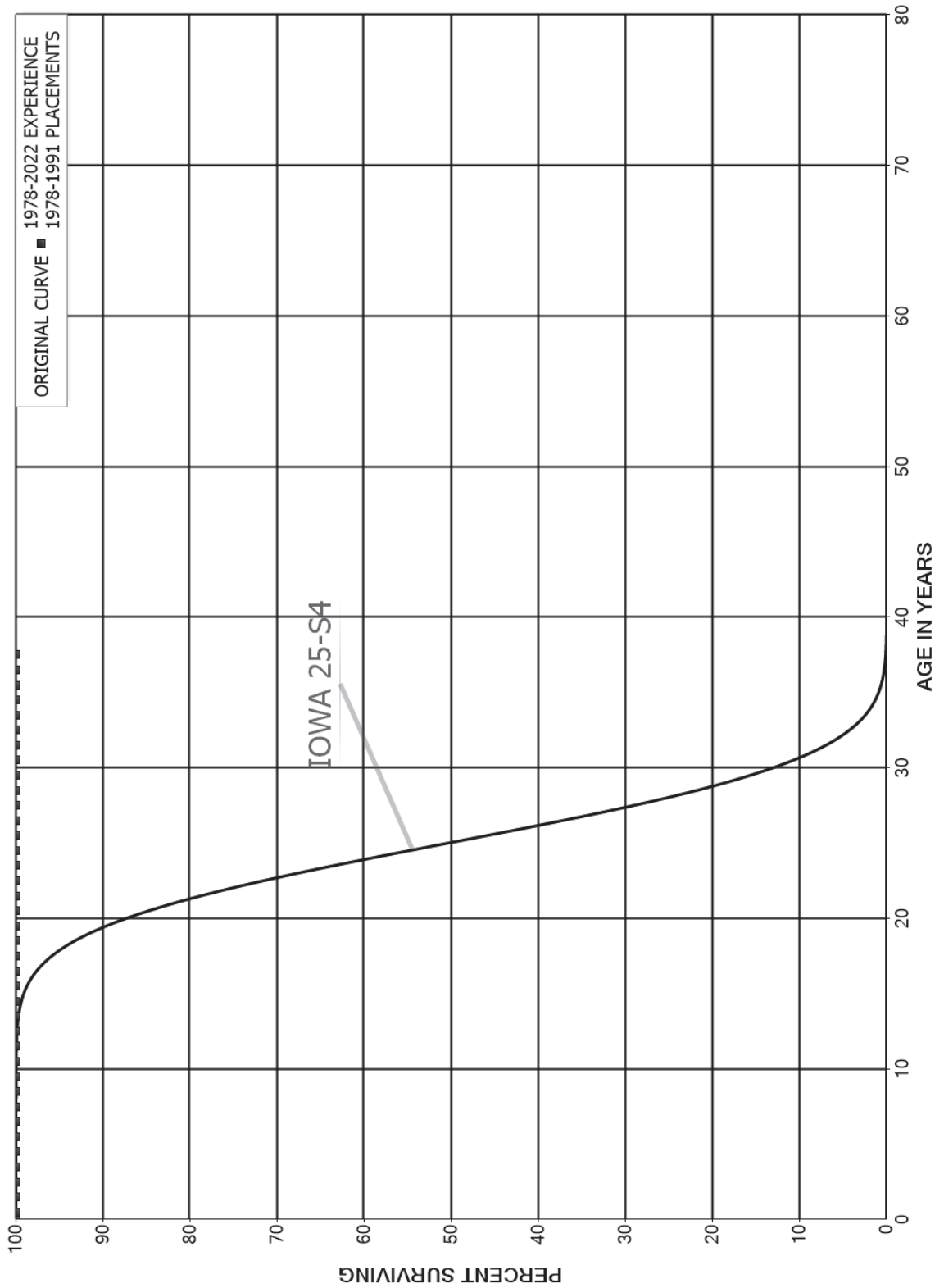
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.20 OTHER EQUIPMENT - CALORIMETERS AT GATE STATION

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1962-1999			EXPERIENCE BAND 1972-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	11,859		0.0000	1.0000	80.39
40.5	11,859		0.0000	1.0000	80.39
41.5	11,859		0.0000	1.0000	80.39
42.5	11,859		0.0000	1.0000	80.39
43.5	11,859		0.0000	1.0000	80.39
44.5	11,859		0.0000	1.0000	80.39
45.5	11,859		0.0000	1.0000	80.39
46.5	11,859		0.0000	1.0000	80.39
47.5	11,859		0.0000	1.0000	80.39
48.5	11,859		0.0000	1.0000	80.39
49.5	11,859		0.0000	1.0000	80.39
50.5	865		0.0000	1.0000	80.39
51.5	865		0.0000	1.0000	80.39
52.5	865		0.0000	1.0000	80.39
53.5	865		0.0000	1.0000	80.39
54.5	865		0.0000	1.0000	80.39
55.5	865		0.0000	1.0000	80.39
56.5	865		0.0000	1.0000	80.39
57.5	865		0.0000	1.0000	80.39
58.5	865		0.0000	1.0000	80.39
59.5	865		0.0000	1.0000	80.39
60.5					80.39

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 387.30 OTHER EQUIPMENT - METER TESTING EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.30 OTHER EQUIPMENT - METER TESTING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1978-1991			EXPERIENCE BAND 1978-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	60,776		0.0000	1.0000	100.00
0.5	60,776		0.0000	1.0000	100.00
1.5	60,776		0.0000	1.0000	100.00
2.5	60,776		0.0000	1.0000	100.00
3.5	60,776		0.0000	1.0000	100.00
4.5	60,776		0.0000	1.0000	100.00
5.5	60,776		0.0000	1.0000	100.00
6.5	60,776		0.0000	1.0000	100.00
7.5	60,776		0.0000	1.0000	100.00
8.5	60,776		0.0000	1.0000	100.00
9.5	60,776		0.0000	1.0000	100.00
10.5	72,671		0.0000	1.0000	100.00
11.5	72,671		0.0000	1.0000	100.00
12.5	72,671		0.0000	1.0000	100.00
13.5	72,671		0.0000	1.0000	100.00
14.5	72,671		0.0000	1.0000	100.00
15.5	72,671		0.0000	1.0000	100.00
16.5	72,671		0.0000	1.0000	100.00
17.5	72,671		0.0000	1.0000	100.00
18.5	72,671		0.0000	1.0000	100.00
19.5	72,671		0.0000	1.0000	100.00
20.5	72,671		0.0000	1.0000	100.00
21.5	72,671		0.0000	1.0000	100.00
22.5	72,671		0.0000	1.0000	100.00
23.5	72,671		0.0000	1.0000	100.00
24.5	72,671		0.0000	1.0000	100.00
25.5	72,671		0.0000	1.0000	100.00
26.5	72,671		0.0000	1.0000	100.00
27.5	72,671		0.0000	1.0000	100.00
28.5	72,671		0.0000	1.0000	100.00
29.5	72,671		0.0000	1.0000	100.00
30.5	72,671		0.0000	1.0000	100.00
31.5	60,776		0.0000	1.0000	100.00
32.5	60,170		0.0000	1.0000	100.00
33.5	60,170		0.0000	1.0000	100.00
34.5	60,170		0.0000	1.0000	100.00
35.5	58,537		0.0000	1.0000	100.00
36.5	57,190		0.0000	1.0000	100.00
37.5	16,792		0.0000	1.0000	100.00
38.5	15,567		0.0000	1.0000	100.00



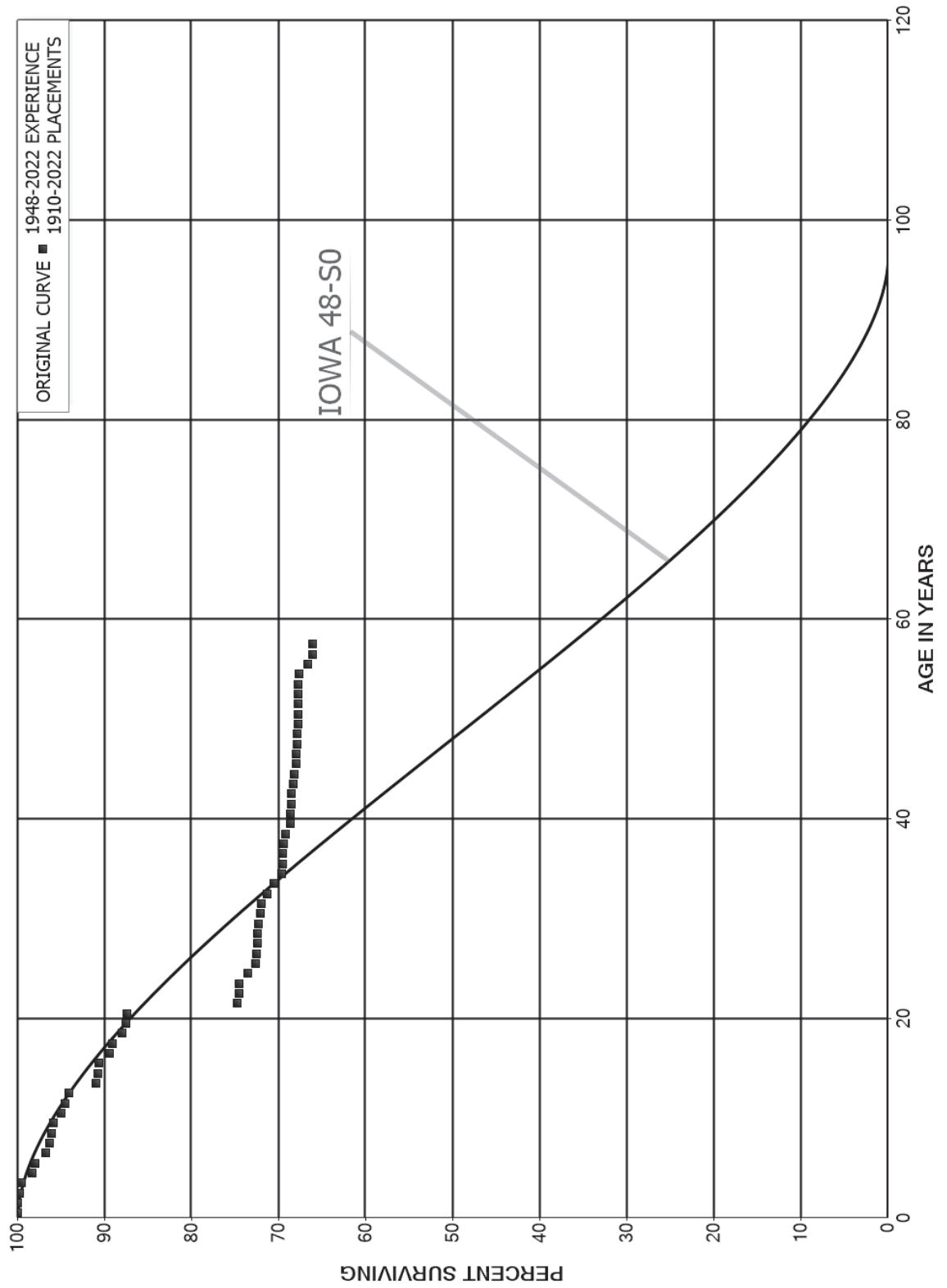
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.30 OTHER EQUIPMENT - METER TESTING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1978-1991			EXPERIENCE BAND 1978-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	15,567		0.0000	1.0000	100.00
40.5	15,567		0.0000	1.0000	100.00
41.5	15,567		0.0000	1.0000	100.00
42.5	15,567		0.0000	1.0000	100.00
43.5	6,819		0.0000	1.0000	100.00
44.5					100.00

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2022

EXPERIENCE BAND 1948-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	174,162,473	39,299	0.0002	0.9998	100.00
0.5	147,598,117	63,712	0.0004	0.9996	99.98
1.5	111,485,634	278,632	0.0025	0.9975	99.93
2.5	110,183,903	192,359	0.0017	0.9983	99.68
3.5	106,290,536	1,337,593	0.0126	0.9874	99.51
4.5	93,046,023	300,827	0.0032	0.9968	98.26
5.5	91,998,872	1,097,379	0.0119	0.9881	97.94
6.5	86,938,974	475,026	0.0055	0.9945	96.77
7.5	84,507,720	126,822	0.0015	0.9985	96.24
8.5	73,850,373	163,031	0.0022	0.9978	96.10
9.5	39,842,603	393,305	0.0099	0.9901	95.89
10.5	30,551,283	154,142	0.0050	0.9950	94.94
11.5	26,750,099	99,411	0.0037	0.9963	94.46
12.5	25,579,355	873,148	0.0341	0.9659	94.11
13.5	23,982,862	38,768	0.0016	0.9984	90.90
14.5	23,651,107	24,337	0.0010	0.9990	90.75
15.5	23,461,297	317,423	0.0135	0.9865	90.66
16.5	21,612,768	100,550	0.0047	0.9953	89.43
17.5	19,655,575	246,103	0.0125	0.9875	89.01
18.5	15,086,407	69,123	0.0046	0.9954	87.90
19.5	13,739,866	23,841	0.0017	0.9983	87.50
20.5	12,782,976	1,843,884	0.1442	0.8558	87.35
21.5	10,194,040	27,089	0.0027	0.9973	74.75
22.5	9,535,112	4	0.0000	1.0000	74.55
23.5	8,915,290	118,594	0.0133	0.9867	74.55
24.5	8,391,931	110,670	0.0132	0.9868	73.56
25.5	7,957,388	11,605	0.0015	0.9985	72.59
26.5	7,716,659	9,618	0.0012	0.9988	72.48
27.5	7,680,732	3,094	0.0004	0.9996	72.39
28.5	7,666,084	2,415	0.0003	0.9997	72.36
29.5	7,496,646	27,872	0.0037	0.9963	72.34
30.5	7,225,944	6,135	0.0008	0.9992	72.07
31.5	7,083,917	70,812	0.0100	0.9900	72.01
32.5	6,845,824	74,315	0.0109	0.9891	71.29
33.5	6,673,802	84,148	0.0126	0.9874	70.51
34.5	6,446,785	7,153	0.0011	0.9989	69.63
35.5	6,365,143	5,915	0.0009	0.9991	69.55
36.5	6,214,996	6,901	0.0011	0.9989	69.48
37.5	6,083,290	18,930	0.0031	0.9969	69.41
38.5	6,024,480	53,995	0.0090	0.9910	69.19

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2022			EXPERIENCE BAND 1948-2022			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	5,817,842	710	0.0001	0.9999	68.57	
40.5	5,302,278	3,798	0.0007	0.9993	68.56	
41.5	4,942,800	3,567	0.0007	0.9993	68.51	
42.5	4,844,565	9,794	0.0020	0.9980	68.46	
43.5	4,800,998	12,969	0.0027	0.9973	68.32	
44.5	3,994,531	8,014	0.0020	0.9980	68.14	
45.5	3,910,493	786	0.0002	0.9998	68.00	
46.5	2,226,868	4,086	0.0018	0.9982	67.99	
47.5	2,191,591	622	0.0003	0.9997	67.87	
48.5	1,780,908	3,943	0.0022	0.9978	67.85	
49.5	1,544,601	450	0.0003	0.9997	67.70	
50.5	1,463,003	28	0.0000	1.0000	67.68	
51.5	1,440,456		0.0000	1.0000	67.67	
52.5	1,423,614		0.0000	1.0000	67.67	
53.5	1,404,153	418	0.0003	0.9997	67.67	
54.5	1,345,542	20,908	0.0155	0.9845	67.65	
55.5	1,299,940	10,091	0.0078	0.9922	66.60	
56.5	642,425	558	0.0009	0.9991	66.09	
57.5	373,084	3,476	0.0093	0.9907	66.03	
58.5	239,103		0.0000	1.0000	65.41	
59.5	231,803	435	0.0019	0.9981	65.41	
60.5	226,079		0.0000	1.0000	65.29	
61.5	218,905		0.0000	1.0000	65.29	
62.5	216,762		0.0000	1.0000	65.29	
63.5	215,225		0.0000	1.0000	65.29	
64.5	262,448	38,544	0.1469	0.8531	65.29	
65.5	220,085	9,030	0.0410	0.9590	55.70	
66.5	164,997		0.0000	1.0000	53.42	
67.5	147,143		0.0000	1.0000	53.42	
68.5	147,080	8,917	0.0606	0.9394	53.42	
69.5	126,631		0.0000	1.0000	50.18	
70.5	97,411		0.0000	1.0000	50.18	
71.5	87,330		0.0000	1.0000	50.18	
72.5	87,082		0.0000	1.0000	50.18	
73.5	78,739		0.0000	1.0000	50.18	
74.5	75,677		0.0000	1.0000	50.18	
75.5	68,896		0.0000	1.0000	50.18	
76.5	68,703		0.0000	1.0000	50.18	
77.5	67,941		0.0000	1.0000	50.18	
78.5	67,910		0.0000	1.0000	50.18	

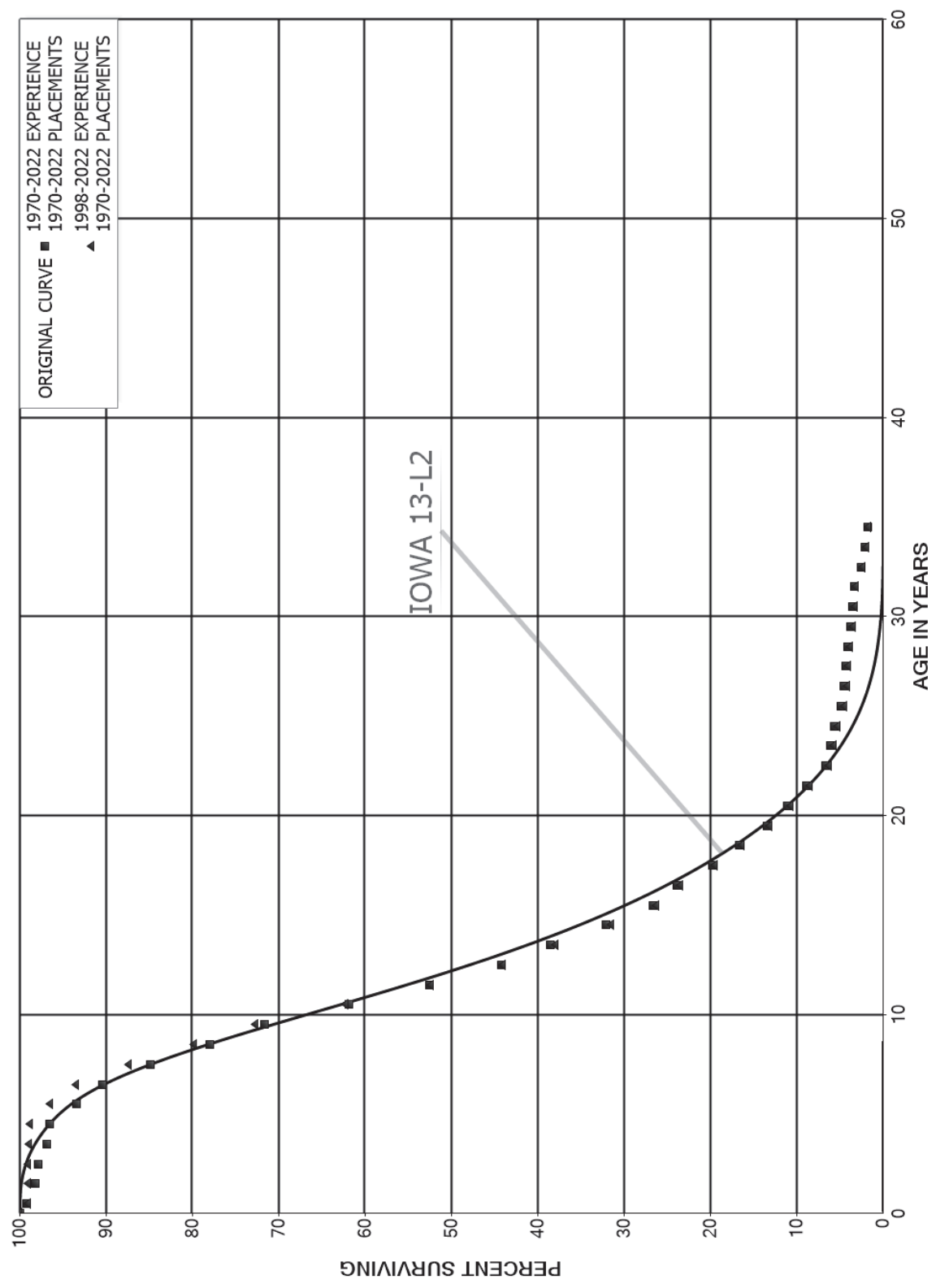
NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2022			EXPERIENCE BAND 1948-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	64,852		0.0000	1.0000	50.18
80.5	64,341		0.0000	1.0000	50.18
81.5	62,997		0.0000	1.0000	50.18
82.5	62,902		0.0000	1.0000	50.18
83.5	62,795		0.0000	1.0000	50.18
84.5	61,850		0.0000	1.0000	50.18
85.5	61,614	416	0.0068	0.9932	50.18
86.5	61,165		0.0000	1.0000	49.84
87.5	61,165		0.0000	1.0000	49.84
88.5	61,165		0.0000	1.0000	49.84
89.5	61,165		0.0000	1.0000	49.84
90.5	61,165		0.0000	1.0000	49.84
91.5	61,165	4,535	0.0741	0.9259	49.84
92.5	56,453		0.0000	1.0000	46.14
93.5	56,453		0.0000	1.0000	46.14
94.5	56,453	5,153	0.0913	0.9087	46.14
95.5	50,755		0.0000	1.0000	41.93
96.5	50,755		0.0000	1.0000	41.93
97.5	50,663		0.0000	1.0000	41.93
98.5	50,652		0.0000	1.0000	41.93
99.5	50,585		0.0000	1.0000	41.93
100.5	50,075		0.0000	1.0000	41.93
101.5	50,075		0.0000	1.0000	41.93
102.5	49,651		0.0000	1.0000	41.93
103.5	49,651		0.0000	1.0000	41.93
104.5	49,651		0.0000	1.0000	41.93
105.5	49,651		0.0000	1.0000	41.93
106.5	49,651		0.0000	1.0000	41.93
107.5	49,479		0.0000	1.0000	41.93
108.5	49,479		0.0000	1.0000	41.93
109.5					41.93

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 392.00 TRANSPORTATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1970-2022

EXPERIENCE BAND 1970-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	101,978,179	810,292	0.0079	0.9921	100.00
0.5	98,858,830	1,043,743	0.0106	0.9894	99.21
1.5	93,686,650	277,244	0.0030	0.9970	98.16
2.5	88,430,294	913,832	0.0103	0.9897	97.87
3.5	80,114,522	295,923	0.0037	0.9963	96.86
4.5	53,358,733	1,693,484	0.0317	0.9683	96.50
5.5	51,640,698	1,679,914	0.0325	0.9675	93.44
6.5	49,787,734	3,081,630	0.0619	0.9381	90.40
7.5	46,517,221	3,726,898	0.0801	0.9199	84.80
8.5	41,108,369	3,379,210	0.0822	0.9178	78.01
9.5	33,292,230	4,519,063	0.1357	0.8643	71.59
10.5	25,638,786	3,889,078	0.1517	0.8483	61.88
11.5	20,844,256	3,296,502	0.1581	0.8419	52.49
12.5	15,827,896	2,045,593	0.1292	0.8708	44.19
13.5	13,488,322	2,237,165	0.1659	0.8341	38.48
14.5	10,612,785	1,798,172	0.1694	0.8306	32.10
15.5	8,469,482	895,995	0.1058	0.8942	26.66
16.5	7,418,724	1,277,769	0.1722	0.8278	23.84
17.5	6,060,716	972,045	0.1604	0.8396	19.73
18.5	4,751,887	895,469	0.1884	0.8116	16.57
19.5	3,635,823	651,801	0.1793	0.8207	13.45
20.5	2,890,106	564,780	0.1954	0.8046	11.03
21.5	2,217,486	553,251	0.2495	0.7505	8.88
22.5	1,626,793	137,289	0.0844	0.9156	6.66
23.5	1,352,079	113,735	0.0841	0.9159	6.10
24.5	1,117,569	146,339	0.1309	0.8691	5.59
25.5	936,069	70,523	0.0753	0.9247	4.86
26.5	776,182	34,821	0.0449	0.9551	4.49
27.5	610,941	30,978	0.0507	0.9493	4.29
28.5	457,386	42,868	0.0937	0.9063	4.07
29.5	414,518	19,394	0.0468	0.9532	3.69
30.5	399,466	20,433	0.0512	0.9488	3.52
31.5	369,187	86,154	0.2334	0.7666	3.34
32.5	261,737	51,947	0.1985	0.8015	2.56
33.5	209,790	32,157	0.1533	0.8467	2.05
34.5	147,565	6,956	0.0471	0.9529	1.74
35.5	140,028	12,235	0.0874	0.9126	1.65
36.5	127,793		0.0000	1.0000	1.51
37.5	127,793	9,128	0.0714	0.9286	1.51
38.5	116,321	9,517	0.0818	0.9182	1.40

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1970-2022			EXPERIENCE BAND 1970-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	79,458	3,518	0.0443	0.9557	1.29
40.5	75,940		0.0000	1.0000	1.23
41.5	75,940		0.0000	1.0000	1.23
42.5	75,940		0.0000	1.0000	1.23
43.5	75,940		0.0000	1.0000	1.23
44.5	75,940		0.0000	1.0000	1.23
45.5	75,940		0.0000	1.0000	1.23
46.5	69,477		0.0000	1.0000	1.23
47.5	69,477		0.0000	1.0000	1.23
48.5	69,477		0.0000	1.0000	1.23
49.5	69,477		0.0000	1.0000	1.23
50.5					1.23



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1970-2022

EXPERIENCE BAND 1998-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	80,656,228	810,292	0.0100	0.9900	100.00
0.5	80,097,551		0.0000	1.0000	99.00
1.5	78,337,579	21,443	0.0003	0.9997	99.00
2.5	75,069,870	89,870	0.0012	0.9988	98.97
3.5	69,696,869	119,912	0.0017	0.9983	98.85
4.5	44,814,723	1,041,494	0.0232	0.9768	98.68
5.5	44,421,650	1,389,968	0.0313	0.9687	96.39
6.5	44,011,072	2,870,241	0.0652	0.9348	93.37
7.5	41,902,224	3,636,855	0.0868	0.9132	87.28
8.5	37,330,313	3,306,433	0.0886	0.9114	79.71
9.5	30,244,998	4,356,427	0.1440	0.8560	72.65
10.5	23,196,153	3,702,113	0.1596	0.8404	62.18
11.5	18,591,491	2,954,460	0.1589	0.8411	52.26
12.5	14,509,544	2,032,133	0.1401	0.8599	43.95
13.5	12,390,274	2,099,737	0.1695	0.8305	37.80
14.5	9,793,903	1,624,133	0.1658	0.8342	31.39
15.5	7,925,404	855,914	0.1080	0.8920	26.19
16.5	6,972,644	1,170,066	0.1678	0.8322	23.36
17.5	5,832,456	955,076	0.1638	0.8362	19.44
18.5	4,560,526	895,469	0.1964	0.8036	16.26
19.5	3,471,860	651,801	0.1877	0.8123	13.06
20.5	2,750,994	564,780	0.2053	0.7947	10.61
21.5	2,084,837	553,251	0.2654	0.7346	8.43
22.5	1,494,144	137,289	0.0919	0.9081	6.19
23.5	1,249,498	100,018	0.0800	0.9200	5.63
24.5	1,031,082	146,339	0.1419	0.8581	5.18
25.5	921,872	70,523	0.0765	0.9235	4.44
26.5	766,665	34,821	0.0454	0.9546	4.10
27.5	610,941	30,978	0.0507	0.9493	3.91
28.5	457,386	42,868	0.0937	0.9063	3.72
29.5	414,518	19,394	0.0468	0.9532	3.37
30.5	399,466	20,433	0.0512	0.9488	3.21
31.5	369,187	86,154	0.2334	0.7666	3.05
32.5	261,737	51,947	0.1985	0.8015	2.34
33.5	209,790	32,157	0.1533	0.8467	1.87
34.5	147,565	6,956	0.0471	0.9529	1.58
35.5	140,028	12,235	0.0874	0.9126	1.51
36.5	127,793		0.0000	1.0000	1.38
37.5	127,793	9,128	0.0714	0.9286	1.38
38.5	116,321	9,517	0.0818	0.9182	1.28

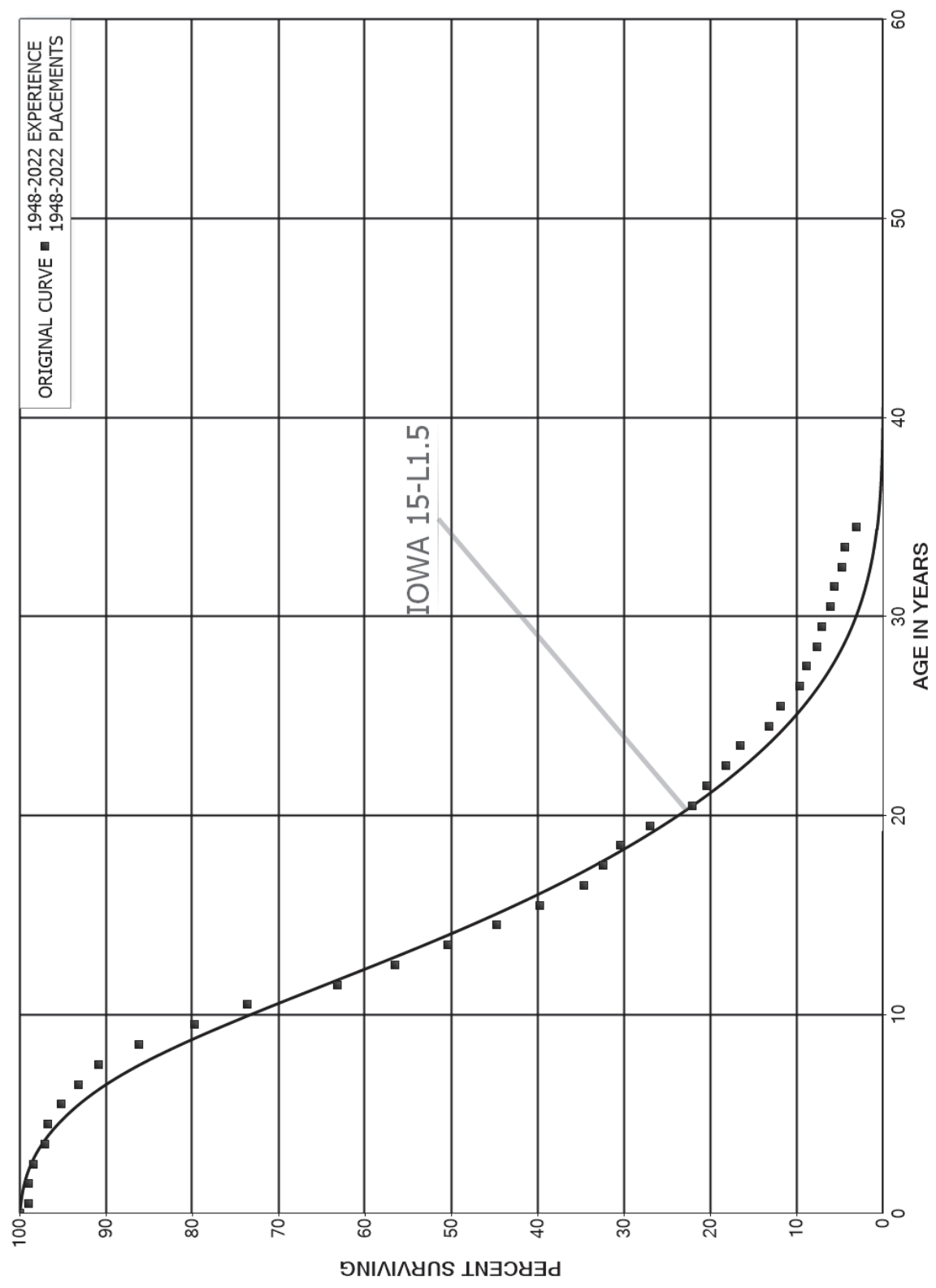
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1970-2022			EXPERIENCE BAND 1998-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	79,458	3,518	0.0443	0.9557	1.18
40.5	75,940		0.0000	1.0000	1.12
41.5	75,940		0.0000	1.0000	1.12
42.5	75,940		0.0000	1.0000	1.12
43.5	75,940		0.0000	1.0000	1.12
44.5	75,940		0.0000	1.0000	1.12
45.5	75,940		0.0000	1.0000	1.12
46.5	69,477		0.0000	1.0000	1.12
47.5	69,477		0.0000	1.0000	1.12
48.5	69,477		0.0000	1.0000	1.12
49.5	69,477		0.0000	1.0000	1.12
50.5					1.12

NORTHWEST NATURAL GAS COMPANY  
 ACCOUNT 396.00 POWER OPERATED EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2022

EXPERIENCE BAND 1948-2022

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	26,082,813	288,089	0.0110	0.9890	100.00
0.5	24,273,046		0.0000	1.0000	98.90
1.5	22,102,238	124,142	0.0056	0.9944	98.90
2.5	20,280,089	268,514	0.0132	0.9868	98.34
3.5	18,198,583	66,342	0.0036	0.9964	97.04
4.5	12,259,701	198,255	0.0162	0.9838	96.68
5.5	12,034,695	252,087	0.0209	0.9791	95.12
6.5	11,866,127	297,998	0.0251	0.9749	93.13
7.5	11,594,547	594,677	0.0513	0.9487	90.79
8.5	10,935,385	807,883	0.0739	0.9261	86.13
9.5	9,381,140	722,486	0.0770	0.9230	79.77
10.5	8,259,975	1,177,004	0.1425	0.8575	73.63
11.5	6,345,278	666,155	0.1050	0.8950	63.13
12.5	5,563,550	606,769	0.1091	0.8909	56.51
13.5	4,918,015	543,883	0.1106	0.8894	50.34
14.5	4,296,572	481,182	0.1120	0.8880	44.78
15.5	3,772,064	488,233	0.1294	0.8706	39.76
16.5	2,954,150	189,717	0.0642	0.9358	34.62
17.5	2,262,150	139,493	0.0617	0.9383	32.39
18.5	2,033,532	229,824	0.1130	0.8870	30.39
19.5	1,741,136	318,213	0.1828	0.8172	26.96
20.5	1,264,001	94,624	0.0749	0.9251	22.03
21.5	1,144,741	122,544	0.1070	0.8930	20.38
22.5	1,022,197	97,196	0.0951	0.9049	18.20
23.5	907,124	180,554	0.1990	0.8010	16.47
24.5	642,305	68,335	0.1064	0.8936	13.19
25.5	579,885	105,633	0.1822	0.8178	11.79
26.5	449,969	40,160	0.0893	0.9107	9.64
27.5	370,429	50,808	0.1372	0.8628	8.78
28.5	307,031	22,348	0.0728	0.9272	7.58
29.5	306,400	41,139	0.1343	0.8657	7.02
30.5	260,912	19,501	0.0747	0.9253	6.08
31.5	231,569	37,953	0.1639	0.8361	5.63
32.5	193,616	12,255	0.0633	0.9367	4.70
33.5	166,701	49,370	0.2962	0.7038	4.41
34.5	117,331		0.0000	1.0000	3.10
35.5	117,331		0.0000	1.0000	3.10
36.5	117,331		0.0000	1.0000	3.10
37.5	54,944		0.0000	1.0000	3.10
38.5	54,944		0.0000	1.0000	3.10

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1948-2022			EXPERIENCE BAND 1948-2022		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	54,944		0.0000	1.0000	3.10
40.5	54,944		0.0000	1.0000	3.10
41.5	30,054		0.0000	1.0000	3.10
42.5	30,054	20,334	0.6766	0.3234	3.10
43.5	1,025		0.0000	1.0000	1.00
44.5	1,025		0.0000	1.0000	1.00
45.5	1,025		0.0000	1.0000	1.00
46.5	1,025		0.0000	1.0000	1.00
47.5	1,025	1,025	1.0000		1.00
48.5					

---

## PART VIII. NET SALVAGE STATISTICS

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.11 AND 376.12 MAINS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1993	1,431,992	226,683	16		0	226,683-	16-
1994	1,342,378	503,908	38		0	503,908-	38-
1995	344,510	450,493	131		0	450,493-	131-
1996	1,098,128	507,451	46		0	507,451-	46-
1997	1,806,918	503,848	28		0	503,848-	28-
1998	1,534,412	584,938	38		0	584,938-	38-
1999	1,902,441	652,267	34	15-	0	652,282-	34-
2000	1,690,556	86,394	5		0	86,394-	5-
2001	2,229,849	807,009	36		0	807,009-	36-
2002	1,765,905	59,291	3	53,763-	3-	113,054-	6-
2003	978,308	1,219,533	125	3,457	0	1,216,076-	124-
2004	1,104,995	1,369,122	124		0	1,369,122-	124-
2005	1,600,635	1,206,093	75		0	1,206,093-	75-
2006	3,661,277	1,273,053	35		0	1,273,053-	35-
2007	1,377,807	1,317,655	96		0	1,317,655-	96-
2008	794,472	1,177,857	148		0	1,177,857-	148-
2009	985,969	1,375,758	140	31,298	3	1,344,460-	136-
2010	874,891	2,057,941	235	72,780	8	1,985,161-	227-
2011	1,100,014	2,172,997	198	50,054	5	2,122,943-	193-
2012	4,007,215	1,968,930	49	33,775	1	1,935,155-	48-
2013	910,088	1,829,071	201	41,432	5	1,787,639-	196-
2014	3,674,656	2,600,318	71	44,128	1	2,556,190-	70-
2015	839,793	2,844,855	339	20,544	2	2,824,311-	336-
2016	1,258,301	2,367,778	188	18,016	1	2,349,762-	187-
2017	393,185	1,743,030	443	36,627	9	1,706,403-	434-
2018	583,585	2,079,219	356	77,396	13	2,001,823-	343-
2019	495,564	993,867	201	94,181	19	899,686-	182-
2020	89,443	214,670	240	73,714	82	140,956-	158-
2021	391,433	2,570,854	657	130,472	33	2,440,382-	623-
2022	635,695	2,694,366	424	32,232	5	2,662,134-	419-
TOTAL	40,904,415	39,459,249	96	706,328	2	38,752,921-	95-

THREE-YEAR MOVING AVERAGES

93-95	1,039,627	393,695	38		0	393,695-	38-
94-96	928,339	487,284	52		0	487,284-	52-
95-97	1,083,185	487,264	45		0	487,264-	45-
96-98	1,479,819	532,079	36		0	532,079-	36-
97-99	1,747,924	580,351	33	5-	0	580,356-	33-
98-00	1,709,136	441,200	26	5-	0	441,205-	26-
99-01	1,940,949	515,223	27	5-	0	515,228-	27-
00-02	1,895,437	317,565	17	17,921-	1-	335,486-	18-

NORTHWEST NATURAL GAS COMPANY  
ACCOUNT 376.11 AND 376.12 MAINS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
01-03	1,658,021	695,278	42	16,769-	1-	712,046-	43-
02-04	1,283,069	882,649	69	16,769-	1-	899,417-	70-
03-05	1,227,979	1,264,916	103	1,152	0	1,263,764-	103-
04-06	2,122,302	1,282,756	60		0	1,282,756-	60-
05-07	2,213,240	1,265,600	57		0	1,265,600-	57-
06-08	1,944,519	1,256,188	65		0	1,256,188-	65-
07-09	1,052,749	1,290,423	123	10,433	1	1,279,991-	122-
08-10	885,111	1,537,185	174	34,693	4	1,502,493-	170-
09-11	986,958	1,868,899	189	51,377	5	1,817,521-	184-
10-12	1,994,040	2,066,623	104	52,203	3	2,014,420-	101-
11-13	2,005,772	1,990,333	99	41,754	2	1,948,579-	97-
12-14	2,863,986	2,132,773	74	39,778	1	2,092,995-	73-
13-15	1,808,179	2,424,748	134	35,368	2	2,389,380-	132-
14-16	1,924,250	2,604,317	135	27,563	1	2,576,754-	134-
15-17	830,426	2,318,554	279	25,062	3	2,293,492-	276-
16-18	745,024	2,063,342	277	44,013	6	2,019,329-	271-
17-19	490,778	1,605,372	327	69,401	14	1,535,971-	313-
18-20	389,531	1,095,919	281	81,764	21	1,014,155-	260-
19-21	325,480	1,259,797	387	99,456	31	1,160,341-	357-
20-22	372,190	1,826,630	491	78,806	21	1,747,824-	470-
FIVE-YEAR AVERAGE							
18-22	439,144	1,710,595	390	81,599	19	1,628,996-	371-



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1993	2,841,387	396,430	14		0	396,430-	14-
1994	2,500,176	663,273	27		0	663,273-	27-
1995	2,342,406	748,847	32		0	748,847-	32-
1996	2,230,345	741,543	33		0	741,543-	33-
1997	1,902,901	771,714	41		0	771,714-	41-
1998	1,960,026	842,083	43		0	842,083-	43-
1999	1,994,257	896,403	45	105-	0	896,508-	45-
2000	1,617,520	35,662	2		0	35,662-	2-
2001	1,390,478	876,280	63		0	876,280-	63-
2002	1,276,053	52,935	4	108,373-	8-	161,308-	13-
2003	1,166,885	923,195	79	133	0	923,062-	79-
2004	1,204,971	1,334,747	111		0	1,334,747-	111-
2005	1,698,676	1,075,509	63		0	1,075,509-	63-
2006	1,337,959	1,267,508	95		0	1,267,508-	95-
2007	1,674,091	2,072,481	124		0	2,072,481-	124-
2008	986,328	2,488,358	252		0	2,488,358-	252-
2009	430,790	465,616	108		0	465,616-	108-
2010	496,643	1,318,460	265		0	1,318,460-	265-
2011	489,210	1,171,358	239		0	1,171,358-	239-
2012	689,693	2,784,271	404		0	2,784,271-	404-
2013	1,699,245	2,306,446	136		0	2,306,446-	136-
2014	1,630,916	2,933,879	180		0	2,933,879-	180-
2015	1,293,428	2,577,664	199		0	2,577,664-	199-
2016	2,214,181	5,577,376	252		0	5,577,376-	252-
2017	1,162,235	1,248,131	107		0	1,248,131-	107-
2018	1,714,774	2,079,495	121		0	2,079,495-	121-
2019	1,477,866	2,552,534	173		0	2,552,534-	173-
2020	135,451	195,198	144		0	195,198-	144-
2021	1,352,193	7,221,715	534		0	7,221,715-	534-
2022	2,709,157	4,137,277	153		0	4,137,277-	153-
TOTAL	45,620,241	51,756,388	113	108,345-	0	51,864,733-	114-

THREE-YEAR MOVING AVERAGES

93-95	2,561,323	602,850	24		0	602,850-	24-
94-96	2,357,642	717,888	30		0	717,888-	30-
95-97	2,158,551	754,035	35		0	754,035-	35-
96-98	2,031,091	785,113	39		0	785,113-	39-
97-99	1,952,395	836,733	43	35-	0	836,768-	43-
98-00	1,857,268	591,383	32	35-	0	591,418-	32-
99-01	1,667,418	602,782	36	35-	0	602,817-	36-
00-02	1,428,017	321,626	23	36,124-	3-	357,750-	25-

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
01-03	1,277,805	617,470	48	36,080-	3-	653,550-	51-
02-04	1,215,970	770,292	63	36,080-	3-	806,372-	66-
03-05	1,356,844	1,111,150	82	44	0	1,111,106-	82-
04-06	1,413,869	1,225,921	87		0	1,225,921-	87-
05-07	1,570,242	1,471,833	94		0	1,471,833-	94-
06-08	1,332,793	1,942,782	146		0	1,942,782-	146-
07-09	1,030,403	1,675,485	163		0	1,675,485-	163-
08-10	637,920	1,424,145	223		0	1,424,145-	223-
09-11	472,214	985,145	209		0	985,145-	209-
10-12	558,515	1,758,030	315		0	1,758,030-	315-
11-13	959,383	2,087,358	218		0	2,087,358-	218-
12-14	1,339,951	2,674,865	200		0	2,674,865-	200-
13-15	1,541,196	2,605,996	169		0	2,605,996-	169-
14-16	1,712,842	3,696,306	216		0	3,696,306-	216-
15-17	1,556,615	3,134,390	201		0	3,134,390-	201-
16-18	1,697,063	2,968,334	175		0	2,968,334-	175-
17-19	1,451,625	1,960,053	135		0	1,960,053-	135-
18-20	1,109,364	1,609,076	145		0	1,609,076-	145-
19-21	988,503	3,323,149	336		0	3,323,149-	336-
20-22	1,398,934	3,851,397	275		0	3,851,397-	275-
FIVE-YEAR AVERAGE							
18-22	1,477,888	3,237,244	219		0	3,237,244-	219-

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1993	35,525		0		0		0
1994	75,695		0	25	0	25	0
1995	109,668		0	220	0	220	0
1996	169,183		0	158	0	158	0
1997	187,776		0	6,160	3	6,160	3
1998	234,076		0	16,920	7	16,920	7
1999	237,115		0	6,900	3	6,900	3
2000	182,134		0	1,936	1	1,936	1
2001	147,077		0		0		0
2002	205,198		0		0		0
2003	323,750		0		0		0
2004	293,768		0		0		0
2005	316,926		0		0		0
2006	517,442		0		0		0
2007	865,099		0		0		0
2008	679,498		0		0		0
2009	2,445,908		0		0		0
2010	832,853		0		0		0
2011	387,538		0		0		0
2012	442,790		0		0		0
2013	822,151		0		0		0
2014	839,332		0		0		0
2015	1,126,709		0		0		0
2016	1,315,911		0		0		0
2017	696,854		0		0		0
2018	1,576,280		0		0		0
2019	1,729,669		0		0		0
2020	4,769,124		0	43,305	1	43,305	1
2021	5,165,289		0	70,297	1	70,297	1
2022	2,543,509		0	11,177	0	11,177	0
TOTAL	29,273,847		0	157,098	1	157,098	1

THREE-YEAR MOVING AVERAGES

93-95	73,629		0	82	0	82	0
94-96	118,182		0	134	0	134	0
95-97	155,542		0	2,179	1	2,179	1
96-98	197,012		0	7,746	4	7,746	4
97-99	219,656		0	9,993	5	9,993	5
98-00	217,775		0	8,585	4	8,585	4
99-01	188,775		0	2,945	2	2,945	2
00-02	178,136		0	645	0	645	0

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
01-03	225,342		0		0		0
02-04	274,239		0		0		0
03-05	311,481		0		0		0
04-06	376,045		0		0		0
05-07	566,489		0		0		0
06-08	687,346		0		0		0
07-09	1,330,168		0		0		0
08-10	1,319,420		0		0		0
09-11	1,222,100		0		0		0
10-12	554,394		0		0		0
11-13	550,826		0		0		0
12-14	701,424		0		0		0
13-15	929,397		0		0		0
14-16	1,093,984		0		0		0
15-17	1,046,491		0		0		0
16-18	1,196,348		0		0		0
17-19	1,334,268		0		0		0
18-20	2,691,691		0	14,435	1	14,435	1
19-21	3,888,027		0	37,867	1	37,867	1
20-22	4,159,307		0	41,593	1	41,593	1
FIVE-YEAR AVERAGE							
18-22	3,156,774		0	24,956	1	24,956	1

NORTHWEST NATURAL GAS COMPANY  
ACCOUNT 381.10 METERS - ELECTRIC

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2014	507,007		0		0		0
2015							
2016							
2017							
2018							
2019							
2020							
2021							
2022							
TOTAL	507,007		0		0		0
THREE-YEAR MOVING AVERAGES							
14-16	169,002		0		0		0
15-17							
16-18							
17-19							
18-20							
19-21							
20-22							
FIVE-YEAR AVERAGE							
18-22							

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.20 METERS - ERT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2010	631,904		0		0		0
2011	272,574		0		0		0
2012	479,487		0		0		0
2013	500,211		0		0		0
2014	422,728		0		0		0
2015	607,184		0		0		0
2016	552,861		0		0		0
2017	403,962		0		0		0
2018	1,074,843		0		0		0
2019	4,021,547		0		0		0
2020	4,090,445		0		0		0
2021	3,274,304		0		0		0
2022	5,021,163		0		0		0
TOTAL	21,353,213		0		0		0

THREE-YEAR MOVING AVERAGES

10-12	461,322		0		0		0
11-13	417,424		0		0		0
12-14	467,475		0		0		0
13-15	510,041		0		0		0
14-16	527,591		0		0		0
15-17	521,336		0		0		0
16-18	677,222		0		0		0
17-19	1,833,451		0		0		0
18-20	3,062,278		0		0		0
19-21	3,795,432		0		0		0
20-22	4,128,637		0		0		0

FIVE-YEAR AVERAGE

18-22	3,496,460		0		0		0
-------	-----------	--	---	--	---	--	---

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1993	46,518	2,598	6		0	2,598-	6-
1994	96,011	9,377	10	1,694	2	7,683-	8-
1995	131,729	3,165	2		0	3,165-	2-
1996	238,906	303	0		0	303-	0
1997	191,607	1,715	1		0	1,715-	1-
1998	328,975	596	0		0	596-	0
1999	370,161	8,471	2	290	0	8,181-	2-
2000	278,986		0	6,715	2	6,715	2
2001	242,395	6,349	3		0	6,349-	3-
2002	329,497	1,602	0		0	1,602-	0
2003	514,135	19,994	4		0	19,994-	4-
2004	480,981	4,365	1		0	4,365-	1-
2005	516,182		0		0		0
2006	813,246		0		0		0
2007	1,549,221		0		0		0
2008	1,077,855		0		0		0
2009	10,496,732		0		0		0
2010	3,633,211		0		0		0
2011	1,646,617		0		0		0
2012	1,809,044		0		0		0
2013	2,227,911		0		0		0
2014	3,182,624		0		0		0
2015	3,438,321		0		0		0
2016	2,975,570		0		0		0
2017	1,694,704		0		0		0
2018	2,778,764		0		0		0
2019	2,692,778		0		0		0
2020	5,030,201		0		0		0
2021	2,322,890		0		0		0
2022	2,969,507		0		0		0
TOTAL	54,105,279	58,535	0	8,699	0	49,836-	0

THREE-YEAR MOVING AVERAGES

93-95	91,419	5,047	6	565	1	4,482-	5-
94-96	155,549	4,282	3	565	0	3,717-	2-
95-97	187,414	1,728	1		0	1,728-	1-
96-98	253,163	871	0		0	871-	0
97-99	296,914	3,594	1	97	0	3,497-	1-
98-00	326,041	3,022	1	2,335	1	687-	0
99-01	297,181	4,940	2	2,335	1	2,605-	1-
00-02	283,626	2,650	1	2,238	1	412-	0

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
01-03	362,009	9,315	3	0	0	9,315-	3-
02-04	441,538	8,654	2	0	0	8,654-	2-
03-05	503,766	8,120	2	0	0	8,120-	2-
04-06	603,470	1,455	0	0	0	1,455-	0
05-07	959,550		0	0	0		0
06-08	1,146,774		0	0	0		0
07-09	4,374,603		0	0	0		0
08-10	5,069,266		0	0	0		0
09-11	5,258,853		0	0	0		0
10-12	2,362,957		0	0	0		0
11-13	1,894,524		0	0	0		0
12-14	2,406,526		0	0	0		0
13-15	2,949,619		0	0	0		0
14-16	3,198,838		0	0	0		0
15-17	2,702,865		0	0	0		0
16-18	2,483,013		0	0	0		0
17-19	2,388,749		0	0	0		0
18-20	3,500,581		0	0	0		0
19-21	3,348,623		0	0	0		0
20-22	3,440,866		0	0	0		0
FIVE-YEAR AVERAGE							
18-22	3,158,828		0	0	0		0



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.10 METER INSTALLATIONS - ELECTRIC

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2014	518,377		0		0		0
2015							
2016							
2017							
2018							
2019							
2020							
2021							
2022							
TOTAL	518,377		0		0		0
THREE-YEAR MOVING AVERAGES							
14-16	172,792		0		0		0
15-17							
16-18							
17-19							
18-20							
19-21							
20-22							
FIVE-YEAR AVERAGE							
18-22							

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.20 METER INSTALLATIONS - ERT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2010	116,947		0		0		0
2011	52,987		0		0		0
2012	94,349		0		0		0
2013	101,403		0		0		0
2014	99,995		0		0		0
2015	113,714		0		0		0
2016	103,020		0		0		0
2017	74,826		0		0		0
2018	125,764		0		0		0
2019	197,054		0		0		0
2020	377,910		0		0		0
2021	321,469		0		0		0
2022	257,923		0		0		0
TOTAL	2,037,361		0		0		0

THREE-YEAR MOVING AVERAGES

10-12	88,094		0		0		0
11-13	82,913		0		0		0
12-14	98,582		0		0		0
13-15	105,037		0		0		0
14-16	105,576		0		0		0
15-17	97,187		0		0		0
16-18	101,203		0		0		0
17-19	132,548		0		0		0
18-20	233,576		0		0		0
19-21	298,811		0		0		0
20-22	319,101		0		0		0

FIVE-YEAR AVERAGE

18-22	256,024		0		0		0
-------	---------	--	---	--	---	--	---

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1993		12,158				12,158-	
1994	723	155,281		50	7	155,231-	
1995		12,056				12,056-	
1996	374,465		0		0		0
1997	43,454	6,063	14		0	6,063-	14-
1998							
1999							
2000	125,000		0		0		0
2001	728,234		0		0		0
2002							
2003	6,013		0		0		0
2004							
2005	8,335		0		0		0
2006							
2007							
2008							
2009	2,852		0		0		0
2010							
2011							
2012	10,603		0		0		0
2013	649,588		0		0		0
2014	57,511		0		0		0
2015							
2016							
2017							
2018							
2019							
2020	231,371		0		0		0
2021	1,132,240		0		0		0
2022							
TOTAL	3,370,388	185,558	6	50	0	185,508-	6-

THREE-YEAR MOVING AVERAGES

93-95	241	59,832		17	7	59,815-	
94-96	125,063	55,779	45	17	0	55,762-	45-
95-97	139,306	6,040	4		0	6,040-	4-
96-98	139,306	2,021	1		0	2,021-	1-
97-99	14,485	2,021	14		0	2,021-	14-
98-00	41,667		0		0		0
99-01	284,411		0		0		0
00-02	284,411		0		0		0

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
01-03	244,749		0		0		0
02-04	2,004		0		0		0
03-05	4,783		0		0		0
04-06	2,778		0		0		0
05-07	2,778		0		0		0
06-08							
07-09	951		0		0		0
08-10	951		0		0		0
09-11	951		0		0		0
10-12	3,534		0		0		0
11-13	220,064		0		0		0
12-14	239,234		0		0		0
13-15	235,700		0		0		0
14-16	19,170		0		0		0
15-17							
16-18							
17-19							
18-20	77,124		0		0		0
19-21	454,537		0		0		0
20-22	454,537		0		0		0
FIVE-YEAR AVERAGE							
18-22	272,722		0		0		0

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1996	3,663,578		0		0		0
1997	1,147,124		0		0		0
1998	643,102		0	194,772	30	194,772	30
1999	1,082,085		0	254,777	24	254,777	24
2000	785,471		0	152,200	19	152,200	19
2001	755,493		0	272,108	36	272,108	36
2002	1,093,048		0	277,660	25	277,660	25
2003	1,374,444		0	282,314	21	282,314	21
2004	1,197,018		0	346,555	29	346,555	29
2005	2,326,071		0	242,308	10	242,308	10
2006	1,212,955		0	218,615	18	218,615	18
2007	1,390,528		0	198,400	14	198,400	14
2008	1,213,420		0	132,689	11	132,689	11
2009	1,806,465		0	116,482	6	116,482	6
2010	2,718,582		0	206,572	8	206,572	8
2011	2,232,500		0	154,173	7	154,173	7
2012	1,908,460		0	240,524	13	240,524	13
2013	1,815,857		0	150,375	8	150,375	8
2014	943,871		0	83,811	9	83,811	9
2015	1,390,921		0	234,987	17	234,987	17
2016	2,350,445		0	328,690	14	328,690	14
2017	1,737,627		0	223,715	13	223,715	13
2018	1,541,208		0	251,821	16	251,821	16
2019	2,256,423		0	342,064	15	342,064	15
2020	1,534,186		0	350,318	23	350,318	23
2021	2,179,673		0	440,019	20	440,019	20
2022	2,112,903		0	481,303	23	481,303	23
TOTAL	44,413,459		0	6,177,252	14	6,177,252	14

THREE-YEAR MOVING AVERAGES

96-98	1,817,935		0	64,924	4	64,924	4
97-99	957,437		0	149,850	16	149,850	16
98-00	836,886		0	200,583	24	200,583	24
99-01	874,350		0	226,362	26	226,362	26
00-02	878,004		0	233,989	27	233,989	27
01-03	1,074,329		0	277,361	26	277,361	26
02-04	1,221,503		0	302,176	25	302,176	25
03-05	1,632,511		0	290,392	18	290,392	18
04-06	1,578,681		0	269,159	17	269,159	17
05-07	1,643,185		0	219,775	13	219,775	13
06-08	1,272,301		0	183,235	14	183,235	14

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
07-09	1,470,138		0	149,190	10	149,190	10
08-10	1,912,822		0	151,914	8	151,914	8
09-11	2,252,516		0	159,076	7	159,076	7
10-12	2,286,514		0	200,423	9	200,423	9
11-13	1,985,606		0	181,691	9	181,691	9
12-14	1,556,063		0	158,237	10	158,237	10
13-15	1,383,550		0	156,391	11	156,391	11
14-16	1,561,746		0	215,829	14	215,829	14
15-17	1,826,331		0	262,464	14	262,464	14
16-18	1,876,427		0	268,075	14	268,075	14
17-19	1,845,086		0	272,533	15	272,533	15
18-20	1,777,272		0	314,734	18	314,734	18
19-21	1,990,094		0	377,467	19	377,467	19
20-22	1,942,254		0	423,880	22	423,880	22
FIVE-YEAR AVERAGE							
18-22	1,924,879		0	373,105	19	373,105	19

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1995	520,485		0		0		0
1996	75,190		0		0		0
1997	30,348		0		0		0
1998	63,975		0	19,797	31	19,797	31
1999	10,223		0	10,646	104	10,646	104
2000	104,702		0	26,730	26	26,730	26
2001	189,458		0	14,283	8	14,283	8
2002	190,349		0	29,311	15	29,311	15
2003	102,476		0	16,777	16	16,777	16
2004	302,574		0	14,825	5	14,825	5
2005	872,364		0	186,761	21	186,761	21
2006	504,138		0	20,352	4	20,352	4
2007	251,001		0	59,528	24	59,528	24
2008	114,341		0	15,286	13	15,286	13
2009	139,361		0	4,647	3	4,647	3
2010	240,789		0	46,089	19	46,089	19
2011	498,971		0	119,294	24	119,294	24
2012	365,158		0	92,512	25	92,512	25
2013	502,213		0	214,520	43	214,520	43
2014	255,426		0	38,520	15	38,520	15
2015	581,404		0	150,376	26	150,376	26
2016	710,358		0	170,180	24	170,180	24
2017	441,739		0	129,938	29	129,938	29
2018	549,609		0	136,469	25	136,469	25
2019	598,755		0	202,211	34	202,211	34
2020	204,308		0	34,185	17	34,185	17
2021	935,455		0	339,759	36	339,759	36
2022	730,921		0	316,493	43	316,493	43
TOTAL	10,086,092		0	2,409,489	24	2,409,489	24

THREE-YEAR MOVING AVERAGES

95-97	208,674		0		0		0
96-98	56,504		0	6,599	12	6,599	12
97-99	34,849		0	10,148	29	10,148	29
98-00	59,633		0	19,058	32	19,058	32
99-01	101,461		0	17,220	17	17,220	17
00-02	161,503		0	23,441	15	23,441	15
01-03	160,761		0	20,124	13	20,124	13
02-04	198,466		0	20,304	10	20,304	10
03-05	425,805		0	72,788	17	72,788	17
04-06	559,692		0	73,979	13	73,979	13

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
05-07	542,501		0	88,880	16	88,880	16
06-08	289,827		0	31,722	11	31,722	11
07-09	168,235		0	26,487	16	26,487	16
08-10	164,830		0	22,007	13	22,007	13
09-11	293,040		0	56,677	19	56,677	19
10-12	368,306		0	85,965	23	85,965	23
11-13	455,447		0	142,109	31	142,109	31
12-14	374,266		0	115,184	31	115,184	31
13-15	446,348		0	134,472	30	134,472	30
14-16	515,729		0	119,692	23	119,692	23
15-17	577,834		0	150,165	26	150,165	26
16-18	567,235		0	145,529	26	145,529	26
17-19	530,034		0	156,206	29	156,206	29
18-20	450,891		0	124,288	28	124,288	28
19-21	579,506		0	192,052	33	192,052	33
20-22	623,561		0	230,146	37	230,146	37
FIVE-YEAR AVERAGE							
18-22	603,810		0	205,823	34	205,823	34



---

**PART IX. DETAILED DEPRECIATION  
CALCULATIONS**

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.10 MISCELLANEOUS INTANGIBLE PLANT - SOFTWARE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2000	502,539.37	502,539	502,539			
2001	558,085.41	558,085	558,085			
2002	459,910.17	459,910	459,910			
2003	2,307,822.96	2,307,823	2,307,823			
2004	277,949.84	277,950	277,950			
2005	1,431,678.94	1,431,679	1,431,679			
2006	714,428.00	714,428	714,428			
2007	1,629,484.94	1,629,485	1,629,485			
2008	6,001,745.25	5,801,707	1,910,436	4,091,309	0.50	4,091,309
2009	13,177,131.70	11,859,419	3,905,171	9,271,961	1.50	6,181,307
2010	2,523,983.52	2,103,311	692,596	1,831,388	2.50	732,555
2011	3,084,332.46	2,364,665	778,657	2,305,675	3.50	658,764
2012	1,959,821.13	1,371,875	451,743	1,508,078	4.50	335,128
2013	2,749,147.78	1,741,118	573,330	2,175,818	5.50	395,603
2014	4,136,153.78	2,343,834	771,798	3,364,356	6.50	517,593
2015	4,345,986.68	2,172,993	715,542	3,630,445	7.50	484,059
2016	5,169,336.07	2,240,028	737,616	4,431,720	8.50	521,379
2017	5,258,816.60	1,928,250	634,951	4,623,866	9.50	486,723
2018	12,198,059.13	3,659,418	1,205,004	10,993,055	10.50	1,046,958
2019	9,600,094.98	2,239,990	737,603	8,862,492	11.50	770,651
2020	15,205,971.51	2,534,379	834,542	14,371,430	12.50	1,149,714
2021	8,300,511.67	830,051	273,327	8,027,185	13.50	594,606
2022	14,867,295.37	495,527	163,171	14,704,124	14.50	1,014,078
	116,460,287.26	51,568,464	22,267,386	94,192,901		18,980,427
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.0						16.30

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.11 MISCELLANEOUS INTANGIBLE PLANT - HORIZON

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2022	47,100,838.00	2,355,042	813,380	46,287,458	9.50	4,872,364
	47,100,838.00	2,355,042	813,380	46,287,458		4,872,364
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					9.5	10.34

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.12 MISCELLANEOUS INTANGIBLE PLANT - SECURITY DIRECTIVE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2022	6,653,764.00	665,376	221,249	6,432,515	4.50	1,429,448
	6,653,764.00	665,376	221,249	6,432,515		1,429,448
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.5 21.48

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.20 MISCELLANEOUS INTANGIBLE PLANT - CUSTOMER INFORMATION SYSTEM

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
1995	639,469.00	639,469	639,469			
1996	369,842.00	369,842	369,842			
1997	27,346,787.00	27,346,787	27,346,787			
1998	450,570.00	450,570	450,570			
1999	150,721.00	150,721	150,721			
2004	415,255.38	415,255	415,255			
2005	468,752.58	468,753	468,753			
2006	448,313.73	448,314	448,314			
2007	415,837.92	415,838	415,838			
2008	190,259.31	183,918	190,259			
2013	1,267,786.82	802,927	1,267,787			
2014	246,002.37	139,402	235,203	10,799	6.50	1,661
	32,409,597.11	31,831,796	32,398,798	10,799		1,661
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.5 0.01

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.30 MISCELLANEOUS INTANGIBLE PLANT - INDUSTRIAL AND COMMERCIAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1998	1,427,352.00	1,427,352	1,427,352			
1999	2,707,150.00	2,707,150	2,707,150			
2000	12,449.00	12,449	12,449			
	4,146,951.00	4,146,951	4,146,951			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.40 MISCELLANEOUS INTANGIBLE PLANT - CRMS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2020	4,264,625.00	2,132,312	2,633,202	1,631,423	2.50	652,569
2021	7,406,959.82	2,222,088	2,744,067	4,662,893	3.50	1,332,255
2022	3,591,869.37	359,187	443,562	3,148,307	4.50	699,624
	15,263,454.19	4,713,587	5,820,831	9,442,623		2,684,448
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.5 17.59

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.71 MISCELLANEOUS INTANGIBLE PLANT - CLOUD-BASED SOFTWARE HORIZON

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2022	23,987,694.00	1,199,385	793,126	23,194,568	9.50	2,441,533
	23,987,694.00	1,199,385	793,126	23,194,568		2,441,533
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					9.5	10.18



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.72 MISCELLANEOUS INTANGIBLE PLANT - CLOUD-BASED TSA SECURITY  
DIRECTIVE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2022	2,507,817.63	250,782		2,507,818	4.50	557,293
	2,507,817.63	250,782		2,507,818		557,293
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.5 22.22

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 305.11 STRUCTURES AND IMPROVEMENTS - GAS PRODUCTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-S1						
NET SALVAGE PERCENT.. -5						
1963	8,320.00	7,461	8,736			
	8,320.00	7,461	8,736			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 305.17 STRUCTURES AND IMPROVEMENTS - MIXING STATION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-S1						
NET SALVAGE PERCENT.. -5						
1956	44,564.00	42,441	46,792			
1958	2,023.00	1,895	4,454	2,330-		
	46,587.00	44,336	51,246	2,330-		
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 305.50 STRUCTURES AND IMPROVEMENTS - OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-S1						
NET SALVAGE PERCENT.. -5						
1984	13,156.00	9,159	13,814			
	13,156.00	9,159	13,814			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 311.70 LIQUEFIED PETROLEUM GAS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L0.5						
NET SALVAGE PERCENT.. -5						
1963	403.00	349	423			
1964	224.00	193	235			
1973	3,406.00	2,752	7,408	3,832-		
	4,033.00	3,294	8,066	3,831-		
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L0.5						
NET SALVAGE PERCENT.. -5						
1975	4,209.00	3,352	6,585	2,166-		
	4,209.00	3,352	6,585	2,166-		
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 318.30 LIGHT OIL REFINING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S2.5						
NET SALVAGE PERCENT.. -5						
1926	6,740.00	7,077	7,077			
1941	65,282.00	66,185	68,546			
1943	3,000.00	3,016	3,150			
1947	11,000.00	10,862	11,550			
1950	14,536.00	14,164	15,263			
1951	28,111.00	27,267	29,517			
1952	15,110.00	14,589	15,866			
1953	1.00	1	1			
1956	163.00	154	171			
1957	953.00	899	1,000			
	144,896.00	144,214	152,141			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 318.50 TAR PROCESSING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S2.5						
NET SALVAGE PERCENT.. -5						
1913	4,028.00	4,229	4,229			
1923	8,294.00	8,709	8,709			
1940	23,539.00	23,969	24,716			
1943	48,609.00	48,862	51,039			
1944	8,137.00	8,143	8,544			
1947	46,907.00	46,319	49,252			
1948	6,861.00	6,746	7,204			
1949	591.00	578	621			
1952	264.00	255	277			
1953	89,945.00	86,446	94,442			
1954	4,566.00	4,368	4,794			
1955	1,810.00	1,723	1,902			
	243,551.00	240,347	255,729			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 319.00 GAS MIXING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-R0.5						
NET SALVAGE PERCENT.. -5						
1956	145,043.00	152,295	152,295			
1957	15,520.00	16,296	16,296			
1958	5,736.00	6,023	6,023			
1959	217.00	228	228			
1960	277.00	291	291			
1962	1,667.00	1,750	1,750			
1964	921.00	943	967			
1967	89.00	87	93			
1980	12,421.00	9,786	13,042			
1981	3,557.00	2,751	3,735			
	185,448.00	190,450	194,720			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 350.20 LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R4						
NET SALVAGE PERCENT.. 0						
1989	40,841.00	19,125	19,596	21,245	37.22	571
1993	5,264.00	2,185	2,239	3,025	40.95	74
1994	400.00	161	165	235	41.90	6
1997	185.00	67	69	116	44.78	3
1998	628.00	218	223	405	45.74	9
2001	3,804.00	1,160	1,189	2,615	48.66	54
2007	58,502.94	12,904	13,222	45,281	54.56	830
	109,624.94	35,820	36,703	72,922		1,547
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						47.1 1.41

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 351.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
1989	2,101,010.00	1,070,822	1,265,247	835,763	29.42	28,408
1990	45,791.00	22,720	26,845	18,946	30.23	627
1991	275,498.00	132,975	157,119	118,379	31.04	3,814
1992	41,905.00	19,653	23,221	18,684	31.86	586
1993	3,226.00	1,468	1,735	1,491	32.69	46
1994	13,262.00	5,851	6,913	6,349	33.53	189
1995	35,648.00	15,222	17,986	17,662	34.38	514
1998	2,475,159.00	950,461	1,123,032	1,352,127	36.96	36,584
1999	4,963.00	1,833	2,166	2,797	37.84	74
2000	32,811.00	11,637	13,750	19,061	38.72	492
2001	884,241.00	300,492	355,051	529,190	39.61	13,360
2002	242,899.00	78,901	93,227	149,672	40.51	3,695
2003	16,898.54	5,236	6,187	10,712	41.41	259
2004	74,234.66	21,875	25,847	48,388	42.32	1,143
2005	123.98	35	41	83	43.24	2
2008	290,921.56	67,785	80,092	210,830	46.02	4,581
2009	3,834.31	833	984	2,850	46.96	61
2010	12,998.94	2,621	3,097	9,902	47.90	207
2012	159,638.62	27,139	32,066	127,573	49.80	2,562
2014	426,776.29	58,968	69,675	357,101	51.71	6,906
2015	66,404.73	8,101	9,572	56,833	52.68	1,079
2017	173,824.60	15,587	18,417	155,408	54.62	2,845
2018	1,252,081.82	92,028	108,737	1,143,345	55.59	20,567
2021	285,370.88	7,040	8,318	277,053	58.52	4,734
2022	232,028.00	1,896	2,240	229,788	59.51	3,861
	9,151,549.93	2,921,179	3,451,565	5,699,985		137,196

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 41.5 1.50

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.00 WELLS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S3						
NET SALVAGE PERCENT.. 0						
1989	8,933,762.00	5,594,322	6,157,778	2,775,984	18.69	148,528
1990	536,082.00	327,975	361,008	175,074	19.41	9,020
1991	2,005,008.00	1,196,990	1,317,550	687,458	20.15	34,117
1992	150,577.00	87,576	96,397	54,180	20.92	2,590
1993	182,892.00	103,480	113,902	68,990	21.71	3,178
1994	2,358.00	1,296	1,427	931	22.52	41
1998	6,327,524.00	3,042,274	3,348,690	2,978,834	25.96	114,747
2001	200,085.00	85,156	93,733	106,352	28.72	3,703
2003	44,802.88	17,357	19,105	25,698	30.63	839
2004	5,127,030.63	1,887,773	2,077,908	3,049,123	31.59	96,522
2005	3,853,067.17	1,343,950	1,479,312	2,373,755	32.56	72,904
2007	8,775,470.65	2,715,131	2,988,597	5,786,874	34.53	167,590
2009	831,368.14	224,303	246,895	584,473	36.51	16,009
2012	17,500.00	3,675	4,045	13,455	39.50	341
2018	3,328,509.28	299,566	329,738	2,998,771	45.50	65,907
2019	3,488,288.60	244,180	268,774	3,219,515	46.50	69,237
2020	4,552,032.47	227,602	250,526	4,301,506	47.50	90,558
2021	4,166,820.20	125,005	137,595	4,029,225	48.50	83,077
2022	5,094,164.23	50,942	56,073	5,038,091	49.50	101,780
	57,617,342.25	17,578,553	19,349,053	38,268,289		1,080,688
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						35.4 1.88

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.10 STORAGE LEASEHOLDS AND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S2.5						
NET SALVAGE PERCENT.. 0						
1989	1,210,800.00	681,571	768,282	442,518	24.04	18,408
1993	1.00	1	1			
1996	237,300.00	109,763	123,727	113,573	29.56	3,842
1997	1,589,979.00	710,578	800,980	788,999	30.42	25,937
1998	492,327.00	212,237	239,239	253,088	31.29	8,088
1999	5,093.00	2,114	2,383	2,710	32.17	84
2002	2,991.00	1,094	1,233	1,758	34.89	50
2004	1,020.52	338	381	640	36.76	17
2014	400,000.00	61,744	69,599	330,401	46.51	7,104
	3,939,511.52	1,779,440	2,005,825	1,933,687		63,530
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						30.4 1.61

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.20 RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S2.5						
NET SALVAGE PERCENT.. 0						
1996	1,679,184.00	776,707	826,240	852,944	29.56	28,855
1998	1,999,907.00	862,140	917,121	1,082,786	31.29	34,605
1999	6,003.00	2,492	2,651	3,352	32.17	104
2000	476,341.00	190,017	202,135	274,206	33.06	8,294
2002	2,997,731.00	1,096,090	1,165,991	1,831,740	34.89	52,500
2004	1,212,371.25	402,071	427,712	784,659	36.76	21,345
2005	2,445,017.29	768,616	817,633	1,627,384	37.71	43,155
2012	17,500.00	3,335	3,548	13,952	44.52	313
	10,834,054.54	4,101,468	4,363,031	6,471,024		189,171
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						34.2 1.75

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.30 NONRECOVERABLE GAS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R4						
NET SALVAGE PERCENT.. 0						
1989	4,057,952.00	2,191,984	2,700,486	1,357,466	27.59	49,201
1993	1.00			1	31.18	
1996	2,255,000.00	978,670	1,205,704	1,049,296	33.96	30,898
1998	62,449.00	25,136	30,967	31,482	35.85	878
2004	65,487.82	20,039	24,688	40,800	41.64	980
	6,440,889.82	3,215,829	3,961,845	2,479,045		81,957
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						30.2 1.27

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 353.00 LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S2.5						
NET SALVAGE PERCENT.. -15						
1989	2,521,353.00	1,632,189	1,703,700	1,195,856	24.04	49,744
1991	17,489.00	10,773	11,245	8,867	25.54	347
1993	1.00	1	1			
1998	3,853,629.00	1,910,450	1,994,153	2,437,520	31.29	77,901
1999	52,862.00	25,234	26,340	34,451	32.17	1,071
2003	7,841.06	3,145	3,283	5,734	35.82	160
2004	684,275.05	260,973	272,407	514,509	36.76	13,996
2005	504,360.29	182,333	190,321	389,693	37.71	10,334
2007	560,153.49	180,138	188,031	456,146	39.62	11,513
2018	1,333,513.81	125,474	130,971	1,402,570	50.50	27,774
2019	1,137,750.13	83,267	86,915	1,221,498	51.50	23,718
2020	116,919.92	6,111	6,379	128,079	52.50	2,440
2021	782.00	25	26	873	53.50	16
2022	1,344,670.40	14,057	14,673	1,531,698	54.50	28,105
	12,135,600.15	4,434,170	4,628,445	9,327,495		247,119

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 37.7 2.04



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.10 COMPRESSOR STATION EQUIPMENT - TURBINE 1

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
1989	3,547,382.00	2,324,103	2,088,050	1,814,070	20.22	89,717
1990	110,946.00	70,857	63,660	58,381	20.97	2,784
1991	139,186.00	86,596	77,801	75,304	21.72	3,467
1992	41,746.00	25,266	22,700	23,221	22.49	1,033
1993	3,141.00	1,848	1,660	1,795	23.26	77
1994	7,648.00	4,366	3,923	4,490	24.05	187
1995	116,370.00	64,388	57,848	70,159	24.85	2,823
1996	3,136.00	1,679	1,508	1,942	25.66	76
1997	19,089.09	9,877	8,874	12,124	26.48	458
1998	166,055.57	82,892	74,473	108,188	27.31	3,961
	4,154,699.66	2,671,872	2,400,497	2,169,673		104,583
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.7 2.52

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.20 COMPRESSOR STATION EQUIPMENT - TURBINE 2

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
1989	4,154,699.00	2,721,993	2,445,528	2,124,641	20.22	105,076
	4,154,699.00	2,721,993	2,445,528	2,124,641		105,076
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.2 2.53

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.30 COMPRESSOR STATION EQUIPMENT - TURBINE 3

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
1998	8,502,780.91	4,244,418	3,813,324	5,539,735	27.31	202,846
1999	94,722.00	45,533	40,908	63,286	28.15	2,248
2000	3,218,557.00	1,486,973	1,335,945	2,204,468	29.00	76,016
2001	1,699,551.00	753,037	676,554	1,192,952	29.86	39,952
2002	122,405.06	51,892	46,621	88,025	30.73	2,864
2008	131,264.60	40,112	36,038	108,353	36.11	3,001
2009	69,541.41	19,843	17,828	58,668	37.03	1,584
2010	20,130.52	5,332	4,790	17,354	37.96	457
2014	781,561.86	142,025	127,600	732,118	41.74	17,540
	14,640,514.36	6,789,165	6,099,608	10,004,958		346,508
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						28.9 2.37

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.40 COMPRESSOR STATION EQUIPMENT - TURBINE 4

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
2000	4,556,230.32	2,104,978	1,891,181	3,120,672	29.00	107,609
2001	6,176,092.83	2,736,503	2,458,564	4,335,138	29.86	145,182
2004	2,147,487.86	827,255	743,233	1,619,004	32.49	49,831
2012	17,500.00	3,912	3,515	15,735	39.84	395
2013	767,326.56	155,645	139,836	704,223	40.78	17,269
2022	2,734,611.85	29,479	26,485	2,981,588	49.51	60,222
	16,399,249.42	5,857,772	5,262,814	12,776,360		380,508
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						33.6 2.32

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.50 COMPRESSOR STATION EQUIPMENT - TURBINE 5

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
2001	1,386,150.00	614,175	551,795	972,970	29.86	32,584
2003	3,978.82	1,611	1,447	2,930	31.60	93
2004	29,546.20	11,382	10,226	22,275	32.49	686
2011	1,167,361.91	285,327	256,348	1,027,750	38.89	26,427
2016	42,248.74	5,893	5,294	41,180	43.66	943
2017	145,612.11	17,235	15,485	144,688	44.62	3,243
2020	779,535.40	42,188	37,903	819,586	47.54	17,240
2022	185,043.79	1,995	1,792	201,756	49.51	4,075
	3,739,476.97	979,806	880,290	3,233,135		85,291
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						37.9 2.28

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.60 COMPRESSOR STATION EQUIPMENT - TURBINE 6

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
2015	260,041.78	41,820	37,572	248,474	42.69	5,820
	260,041.78	41,820	37,572	248,474		5,820
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						42.7 2.24

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 355.00 MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S2						
NET SALVAGE PERCENT.. -10						
1989	3,473,015.20	2,392,359	2,535,214	1,285,103	16.82	76,403
1990	66,949.00	45,201	47,900	25,744	17.38	1,481
1991	21,410.00	14,152	14,997	8,554	17.96	476
1992	17,819.00	11,517	12,205	7,396	18.56	398
1993	1,785.00	1,127	1,194	770	19.18	40
1994	35.00	22	23	16	19.82	1
1995	9,858.00	5,909	6,262	4,582	20.48	224
1996	15,372.00	8,962	9,497	7,412	21.15	350
1998	1,090,120.00	597,695	633,385	565,747	22.57	25,066
1999	238,641.00	126,585	134,144	128,361	23.30	5,509
2000	1,704,161.55	872,297	924,385	950,193	24.06	39,493
2001	48,850.00	24,073	25,510	28,225	24.84	1,136
2002	198,196.98	93,795	99,396	118,621	25.64	4,626
2003	0.07					
2004	830,627.56	359,592	381,064	532,626	27.29	19,517
2005	1,791,619.55	737,939	782,004	1,188,778	28.15	42,230
2006	143,130.10	55,910	59,249	98,194	29.02	3,384
2007	4,611,549.49	1,701,030	1,802,604	3,270,100	29.91	109,331
2008	207,002.45	71,751	76,035	151,668	30.82	4,921
2009	993,447.65	322,013	341,242	751,550	31.74	23,678
2011	435,517.72	121,046	128,274	350,795	33.63	10,431
2012	17,500.00	4,453	4,719	14,531	34.59	420
2013	71,153.62	16,419	17,399	60,870	35.56	1,712
2015	10,072.05	1,842	1,952	9,127	37.52	243
2016	124,808.02	19,800	20,982	116,307	38.51	3,020
2017	124,297.12	16,681	17,677	119,050	39.51	3,013
2018	369,594.51	40,655	43,083	363,471	40.50	8,975
2019	76,345.99	6,532	6,922	77,059	41.50	1,857
2020	1,857,532.18	113,525	120,304	1,922,981	42.50	45,247
2021	9,662,801.94	354,267	375,422	10,253,660	43.50	235,716
2022	8,995,303.03	109,932	116,496	9,778,337	44.50	219,738
	37,208,515.78	8,247,081	8,739,540	32,189,827		888,636

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 36.2 2.39

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 356.00 PURIFICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S2.5						
NET SALVAGE PERCENT.. -5						
1989	139,942.00	95,804	60,076	86,863	15.66	5,547
1990	12,815.00	8,594	5,389	8,067	16.26	496
1992	15,940.00	10,217	6,407	10,330	17.53	589
1993	2,878.00	1,800	1,129	1,893	18.20	104
1995	73,881.00	43,769	27,447	50,128	19.61	2,556
1996	48,826.00	28,094	17,617	33,650	20.34	1,654
1998	3,081.00	1,662	1,042	2,193	21.88	100
2018	66,401.79	6,972	4,372	65,350	40.50	1,614
2020	28,191,885.97	1,644,658	1,031,326	28,570,154	42.50	672,239
2022	254,334.29	2,967	1,861	265,190	44.50	5,959
	28,809,985.05	1,844,537	1,156,666	29,093,818		690,858
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						42.1 2.40



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 357.00 OTHER EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-R4						
NET SALVAGE PERCENT.. 0						
1989	76,057.00	63,301	75,230	827	5.87	141
1992	5,980.00	4,670	5,550	430	7.67	56
1998	564,221.00	371,257	441,220	123,001	11.97	10,276
1999	56,329.00	35,793	42,538	13,791	12.76	1,081
2008	629,441.85	256,995	305,426	324,016	20.71	15,645
2009	63,256.08	24,092	28,632	34,624	21.67	1,598
2018	1,027,537.43	131,823	156,665	870,872	30.51	28,544
2020	2,250,170.09	160,730	191,020	2,059,150	32.50	63,358
2021	475,212.76	20,368	24,206	451,007	33.50	13,463
2022	113,567.00	1,623	1,929	111,638	34.50	3,236
	5,261,772.21	1,070,652	1,272,416	3,989,356		137,398
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						29.0 2.61

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -5						
1969	59,412.00	50,185	51,976	10,407	10.85	959
1970	26,089.00	21,933	22,716	4,678	10.98	426
1974	183.00	151	156	36	11.46	3
1975	8,525.00	6,988	7,237	1,714	11.57	148
1976	14,557.00	11,868	12,291	2,993	11.67	256
1978	9,671.00	7,797	8,075	2,079	11.86	175
1981	1,017.00	805	834	234	12.11	19
1982	46,738.00	36,763	38,075	11,000	12.19	902
1985	20,155.00	15,529	16,083	5,080	12.39	410
1986	6,343.00	4,851	5,024	1,636	12.45	131
1987	6,731.00	5,107	5,289	1,778	12.51	142
1988	30,340.00	22,835	23,650	8,207	12.56	653
1991	27,819.00	20,386	21,113	8,097	12.70	638
1992	4,998.00	3,626	3,755	1,493	12.75	117
1993	42,483.00	30,499	31,587	13,020	12.79	1,018
1994	37,310.00	26,493	27,438	11,737	12.83	915
1995	45,530.00	31,962	33,103	14,704	12.86	1,143
1996	20,875.00	14,470	14,986	6,932	12.90	537
1997	22,876.00	15,651	16,209	7,810	12.93	604
2000	10,951.00	7,162	7,418	4,081	13.02	313
2001	30,731.00	19,750	20,455	11,813	13.05	905
2002	60,440.00	38,116	39,476	23,986	13.08	1,834
2004	6,103.00	3,692	3,824	2,584	13.12	197
2005	185,610.40	109,577	113,487	81,404	13.15	6,190
2006	961,819.17	553,320	573,064	436,846	13.17	33,170
2007	432,192.31	241,622	250,244	203,558	13.19	15,433
2008	892,383.17	483,268	500,513	436,490	13.21	33,042
2009	1,097,712.30	574,328	594,822	557,776	13.22	42,192
2010	113,303.89	56,980	59,013	59,956	13.24	4,528
2011	221,064.76	106,336	110,130	121,988	13.26	9,200
2012	71,983.47	32,957	34,133	41,450	13.27	3,124
2015	53,824.55	20,106	20,823	35,692	13.31	2,682
2016	484,828.69	164,867	170,750	338,320	13.32	25,399
2017	14,238.78	4,308	4,462	10,489	13.34	786
2018	5,604,150.24	1,463,616	1,515,843	4,368,515	13.35	327,230
2020	43,051.42	7,025	7,276	37,928	13.37	2,837
2021	86,705.20	9,073	9,397	81,644	13.37	6,107
2022	1,452,034.00	54,917	56,877	1,467,759	13.38	109,698
	12,254,779.35	4,278,919	4,431,605	8,435,913		634,063

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
1965	1,500.00	1,230	1,348	227	12.79	18
1974	605,426.00	465,140	509,702	125,995	14.99	8,405
1977	711,173.00	533,480	584,589	162,142	15.61	10,387
1978	31,895.00	23,723	25,996	7,494	15.81	474
1979	16,085.00	11,864	13,001	3,889	15.99	243
1982	13,954.00	10,020	10,980	3,672	16.50	223
1984	270.00	190	208	75	16.80	4
1986	2,983.00	2,059	2,256	876	17.08	51
1987	2,143.00	1,464	1,604	646	17.20	38
1988	17,175.00	11,602	12,714	5,320	17.33	307
1989	83,518.00	55,779	61,123	26,571	17.44	1,524
1990	24,328.00	16,054	17,592	7,952	17.55	453
1991	59,235.00	38,609	42,308	19,889	17.65	1,127
1992	141,822.00	91,239	99,980	48,933	17.75	2,757
1993	26,244.00	16,656	18,252	9,304	17.84	522
1994	214,182.00	133,972	146,807	78,084	17.93	4,355
1995	37,880.00	23,335	25,571	14,203	18.02	788
1996	89,930.00	54,522	59,745	34,681	18.10	1,916
1997	169,271.00	100,916	110,584	67,150	18.17	3,696
1998	67,057.09	39,276	43,039	27,371	18.24	1,501
1999	164,083.00	94,281	103,313	68,974	18.31	3,767
2000	31,277.00	17,610	19,297	13,544	18.38	737
2001	48,710.00	26,838	29,409	21,736	18.44	1,179
2002	66,987.31	36,057	39,511	30,825	18.50	1,666
2003	0.04		0			
2004	12,320.82	6,297	6,900	6,037	18.61	324
2005	10,028.06	4,978	5,455	5,075	18.66	272
2006	47,617.22	22,899	25,093	24,905	18.71	1,331
2008	366,599.53	163,961	179,669	205,260	18.80	10,918
2009	253,147.32	108,576	118,978	146,827	18.84	7,793
2010	636,411.98	260,597	285,563	382,669	18.88	20,268
2011	60,719.61	23,600	25,861	37,895	18.92	2,003
2012	31,512.46	11,563	12,671	20,417	18.95	1,077
2014	53,287.83	16,942	18,565	37,387	19.02	1,966
2016	3,063,049.39	802,475	879,355	2,336,847	19.07	122,540
2017	2,859,549.08	658,904	722,029	2,280,497	19.10	119,398
2018	1,907,457.63	374,529	410,410	1,592,420	19.13	83,242

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
2019	167,922.77	26,783	29,349	146,970	19.15	7,675
2020	27,918.13	3,322	3,640	25,674	19.17	1,339
2021	71,870.99	5,369	5,883	69,581	19.19	3,626
	12,196,541.26	4,296,711	4,708,351	8,098,017		429,910
OTHER						
SURVIVOR CURVE.. IOWA 60-R2.5						
NET SALVAGE PERCENT.. -5						
1963	4,009.00	3,187	3,619	591	14.57	41
1968	527.00	396	450	104	17.08	6
1975	1,118.00	760	863	311	21.16	15
1999	21,103.00	7,789	8,844	13,314	38.91	342
	26,757.00	12,132	13,776	14,319		404
	24,478,077.61	8,587,762	9,153,732	16,548,249		1,064,377
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.5 4.35

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 362.00 GAS HOLDERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 60-R3						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -20						
1969	1,720,509.00	1,680,077	1,649,239	415,372	10.54	39,409
1974	815.00	775	761	217	11.31	19
1983	969.00	872	856	307	12.27	25
1991	1,017.00	857	841	379	12.77	30
1993	18,991.00	15,674	15,386	7,403	12.87	575
2006	362,872.63	239,783	235,382	200,065	13.26	15,088
2009	488,646.40	293,411	288,025	298,350	13.32	22,399
2015	53,824.55	23,059	22,636	41,954	13.40	3,131
2016	1,686,933.32	658,127	646,047	1,378,273	13.41	102,779
2017	221,486.45	76,862	75,451	190,333	13.42	14,183
	4,556,064.35	2,989,497	2,934,624	2,532,653		197,638
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 60-R3						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -20						
1977	5,551,294.00	4,829,026	6,167,553	493,999	15.35	32,182
1978	10,302.00	8,882	11,344	1,018	15.59	65
1994	72,915.00	52,568	67,139	20,359	18.08	1,126
1996	138,492.00	96,786	123,614	42,577	18.25	2,333
2006	900.36	498	636	444	18.90	23
2017	153,200.46	40,515	51,745	132,095	19.28	6,851
	5,927,103.82	5,028,275	6,422,031	690,494		42,580
OTHER						
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. -20						
2003	1,600.14	595	1,297	623	41.41	15
	1,600.14	595	1,297	623		15
	10,484,768.31	8,018,367	9,357,952	3,223,770		240,233
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.4 2.29

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.10 LIQUEFACTION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 55-R2						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -5						
1969	828,857.00	695,431	870,300			
1970	15,188.00	12,684	15,947			
1971	1,613.00	1,341	1,694			
1972	4,261.00	3,525	4,474			
1974	1,957.00	1,603	2,055			
1975	268.00	218	281			
1976	25,955.00	21,032	27,253			
1980	100,679.00	79,749	103,916	1,797	11.62	155
1986	715.00	544	709	42	12.09	3
1987	68,778.00	51,899	67,626	4,591	12.16	378
1990	86,886.00	63,912	83,280	7,951	12.34	644
1991	51,422.00	37,466	48,820	5,174	12.40	417
1992	77,450.00	55,884	72,819	8,504	12.45	683
1994	15,589.00	11,009	14,345	2,023	12.55	161
1995	2,211.00	1,543	2,011	311	12.60	25
1996	6,143.00	4,235	5,518	932	12.64	74
1997	132,937.00	90,460	117,873	21,711	12.68	1,712
1998	157,516.00	105,694	137,723	27,669	12.72	2,175
1999	78,997.00	52,215	68,038	14,909	12.76	1,168
2000	88,122.00	57,311	74,678	17,850	12.80	1,395
2001	284,485.00	181,866	236,978	61,731	12.83	4,811
2002	44,801.00	28,104	36,621	10,421	12.87	810
2003	131,666.14	80,960	105,494	32,756	12.90	2,539
2004	219,028.75	131,776	171,709	58,271	12.93	4,507
2005	46,627.74	27,392	35,693	13,266	12.96	1,024
2006	127,298.03	72,848	94,924	38,739	12.99	2,982
2007	8,445.29	4,700	6,124	2,743	13.01	211
2009	70,412.91	36,653	47,760	26,173	13.06	2,004
2012	72,983.52	33,244	43,318	33,315	13.13	2,537
2015	53,824.55	20,038	26,110	30,406	13.18	2,307
2016	402,787.76	136,343	177,660	245,267	13.20	18,581
2017	111,506.66	33,597	43,778	73,304	13.22	5,545
2019	55,575.58	11,916	15,527	42,827	13.25	3,232
2020	75,214.89	12,274	15,993	62,982	13.26	4,750
2021	461,522.51	47,999	62,544	422,054	13.28	31,781
	3,911,724.33	2,207,465	2,839,591	1,267,720		96,611

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.10 LIQUEFACTION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 55-R2						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
1977	5,236,797.00	3,908,431	4,390,626	1,108,011	14.81	74,815
1978	16,348.00	12,103	13,596	3,569	15.00	238
1979	5,538.00	4,065	4,567	1,248	15.19	82
1984	21,919.00	15,370	17,266	5,749	16.05	358
1985	11,525.00	8,002	8,989	3,112	16.20	192
1986	14,148.00	9,722	10,921	3,934	16.35	241
1987	8,543.00	5,808	6,525	2,446	16.49	148
1989	21,759.00	14,461	16,245	6,602	16.76	394
1990	2,886.00	1,895	2,129	902	16.89	53
1991	51,784.00	33,575	37,717	16,656	17.01	979
1992	4,079.00	2,611	2,933	1,350	17.12	79
1993	16,196.00	10,222	11,483	5,523	17.24	320
1994	1,119.00	696	782	393	17.34	23
1996	186,692.00	112,594	126,485	69,542	17.54	3,965
1997	151,762.28	89,961	101,060	58,291	17.64	3,304
1998	390,938.46	227,725	255,820	154,665	17.72	8,728
1999	249,536.00	142,574	160,164	101,849	17.81	5,719
2001	180,788.00	99,056	111,277	78,551	17.97	4,371
2002	30,345.79	16,248	18,253	13,611	18.04	754
2004	76,018.79	38,642	43,409	36,410	18.18	2,003
2005	1,705.00	842	946	844	18.25	46
2006	28,555.27	13,659	15,344	14,639	18.31	800
2007	35,357.72	16,333	18,348	18,778	18.37	1,022
2008	62,378.35	27,739	31,161	34,336	18.43	1,863
2014	356,850.62	112,869	126,794	247,899	18.72	13,242
2017	3,561,611.76	817,759	918,648	2,821,044	18.83	149,816
2018	4,848,560.74	948,400	1,065,407	4,025,582	18.87	213,332
2019	174,662.05	27,751	31,175	152,220	18.90	8,054
2021	221,992.66	16,552	18,594	214,498	18.97	11,307
2022	6,562,936.00	169,796	190,744	6,700,339	19.00	352,649
	22,533,332.49	6,905,461	7,757,409	15,902,590		858,897
	26,445,056.82	9,112,926	10,597,000	17,170,310		955,508
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.0						3.61

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.20 VAPORIZING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 40-R4						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -5						
1969	18,960.00	19,097	19,422	486	1.63	298
1971	13,254.00	13,176	13,400	517	2.13	243
1972	2,368.00	2,338	2,378	109	2.39	46
1973	13,251.00	12,988	13,209	705	2.66	265
1974	2,259.00	2,198	2,235	137	2.93	47
1975	269.00	260	264	18	3.21	6
1976	386,664.00	370,574	376,879	29,118	3.49	8,343
1986	12,078.00	10,322	10,498	2,184	7.40	295
1987	177,462.00	149,266	151,806	34,529	7.89	4,376
1990	1,140,108.00	912,595	928,122	268,991	9.30	28,924
1991	181,570.00	142,962	145,394	45,254	9.72	4,656
1993	1.00	1	1			
1994	32,761.00	24,551	24,969	9,430	10.81	872
1995	11,181.00	8,239	8,379	3,361	11.12	302
2006	321,206.91	188,010	191,209	146,058	12.98	11,253
2015	53,824.46	20,254	20,599	35,917	13.41	2,678
2017	2,091,400.63	637,688	648,538	1,547,433	13.44	115,136
	4,458,618.00	2,514,519	2,557,302	2,124,247		177,740

NEWPORT  
INTERIM SURVIVOR CURVE.. IOWA 40-R4  
PROBABLE RETIREMENT YEAR.. 6-2042  
NET SALVAGE PERCENT.. -5

1977	60,825.00	57,815	38,498	25,368	3.79	6,693
1990	15,899.00	12,410	8,264	8,430	10.24	823
1991	4,866.00	3,714	2,473	2,636	10.88	242
1992	2,226.00	1,660	1,105	1,232	11.52	107
2002	180.00	103	69	120	16.71	7
2004	68,445.68	36,793	24,500	47,368	17.35	2,730
2011	1,113,015.02	443,088	295,045	873,620	18.75	46,593
2015	95,076.50	28,051	18,679	81,152	19.14	4,240



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.20 VAPORIZING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 40-R4						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
2017	2,379,279.54	554,160	369,007	2,129,237	19.26	110,552
2020	2,967,835.97	356,216	237,199	2,879,029	19.37	148,633
2021	10,560.25	796	530	10,558	19.40	544
	6,718,208.96	1,494,806	995,368	6,058,751		321,164
	11,176,826.96	4,009,325	3,552,670	8,182,998		498,904
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.4 4.46

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.30 COMPRESSOR EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 35-R1.5						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -5						
1982	85,687.00	69,605	89,971			
1983	1,117.00	899	1,173			
1986	21,516.00	16,806	22,592			
1996	19,421.00	13,428	20,392			
2008	51,410.22	27,362	53,981			
2022	233,035.00	8,601	23,908	220,779	12.90	17,115
	412,186.22	136,701	212,017	220,779		17,115
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 35-R1.5						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
1997	20,827.00	12,795	21,033	836	13.70	61
2003	178,502.00	94,501	155,342	32,085	15.33	2,093
2005	16,780.44	8,346	13,719	3,900	15.79	247
2014	1,385,829.26	434,295	713,900	741,220	17.30	42,845
2016	2,266,969.59	583,821	959,693	1,420,625	17.54	80,993
2017	497,806.37	112,672	185,212	337,485	17.65	19,121
2018	256,596.34	49,448	81,283	188,143	17.75	10,600
2020	121,183.04	14,188	23,322	103,920	17.93	5,796
2021	820,790.65	60,070	98,744	763,086	18.02	42,347
2022	13,113.00	334	549	13,220	18.10	730
	5,578,397.69	1,370,470	2,252,798	3,604,520		204,833
	5,990,583.91	1,507,171	2,464,815	3,825,299		221,948
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.2 3.70

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.40 MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 50-R4						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -5						
1969	461,537.00	428,825	351,598	133,016	5.75	23,133
1970	2,640.00	2,435	1,996	776	6.07	128
1971	9,831.00	8,996	7,376	2,947	6.41	460
1972	6,325.00	5,740	4,706	1,935	6.76	286
1974	1,327.00	1,183	970	423	7.49	56
1975	374.00	330	271	122	7.87	16
1985	3,662.00	2,919	2,393	1,452	11.19	130
1988	3,818.00	2,954	2,422	1,587	11.78	135
1990	33,747.00	25,570	20,965	14,469	12.09	1,197
2002	17,323.00	11,046	9,057	9,132	13.16	694
2006	28,273.59	16,405	13,451	16,237	13.31	1,220
2009	168,291.28	88,583	72,630	104,076	13.39	7,773
2013	151,561.74	65,793	53,944	105,195	13.45	7,821
2014	359,909.59	146,340	119,986	257,919	13.45	19,176
2017	1,203,718.97	365,774	299,902	964,003	13.48	71,514
2018	426,268.10	112,021	91,847	355,734	13.48	26,390
2020	366,277.42	60,131	49,302	335,289	13.49	24,855
2021	330,436.66	34,720	28,467	318,491	13.49	23,609
2022	1,919,653.00	72,039	59,066	1,956,570	13.49	145,039
	5,494,974.35	1,451,804	1,190,349	4,579,374		353,632

NEWPORT  
INTERIM SURVIVOR CURVE.. IOWA 50-R4  
PROBABLE RETIREMENT YEAR.. 6-2042  
NET SALVAGE PERCENT.. -5

1977	55,203.00	46,842	7,540	50,423	9.57	5,269
1988	5,884.00	4,225	680	5,498	15.12	364
1989	4,775.00	3,375	543	4,470	15.50	288
1990	13,736.00	9,553	1,538	12,885	15.86	812
1991	20,511.00	14,030	2,258	19,278	16.20	1,190
1992	3,371.00	2,268	365	3,174	16.51	192
2017	10,187,159.88	2,358,368	379,640	10,316,878	19.41	531,524
2018	154,590.07	30,537	4,916	157,404	19.42	8,105
2019	116,849.50	18,674	3,006	119,686	19.44	6,157

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.40 MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 50-R4						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
2020	101,306.78	12,116	1,950	104,422	19.45	5,369
2021	188,716.81	14,180	2,283	195,870	19.46	10,065
2022	3,334,330.00	87,666	14,112	3,486,934	19.47	179,093
	14,186,433.04	2,601,834	418,832	14,476,923		748,428
	19,681,407.39	4,053,638	1,609,181	19,056,297		1,102,060
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.3 5.60

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.50 CNG REFUELING FACILITIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 31-R3						
NET SALVAGE PERCENT.. -5						
1981	19,620.00	18,800	20,601			
1982	9,560.00	9,076	10,038			
1983	1,563.00	1,470	1,641			
1984	40,443.00	37,657	42,465			
1985	1,466.00	1,351	1,539			
1986	7,018.00	6,392	7,369			
1990	63,479.00	54,655	63,703	2,950	5.58	529
1991	52,207.00	44,172	51,485	3,332	6.02	553
1992	19,707.00	16,360	19,068	1,624	6.49	250
1993	61,210.00	49,779	58,020	6,250	6.99	894
1994	348,384.00	277,067	322,936	42,867	7.52	5,700
1995	293,359.00	227,641	265,328	42,699	8.09	5,278
1996	228,151.00	172,482	201,037	38,522	8.68	4,438
1997	47,984.57	35,285	41,126	9,258	9.29	997
1998	28,835.82	20,579	23,986	6,292	9.93	634
1999	4,283.40	2,960	3,450	1,048	10.60	99
2002	1,300.00	804	937	428	12.74	34
2004	49,674.00	28,165	32,828	19,330	14.26	1,356
2012	117,630.32	39,803	46,392	77,120	21.01	3,671
2013	123,013.59	37,832	44,095	85,069	21.92	3,881
2014	1,532,406.79	423,544	493,663	1,115,364	22.84	48,834
	3,051,295.49	1,505,874	1,751,707	1,452,153		77,148

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.8 2.53

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.60 LNG REFUELING FACILITIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S2.5						
NET SALVAGE PERCENT.. -5						
1982	349,437.00	268,985	366,909			
1983	61,620.00	46,757	64,701			
1984	42,767.00	31,973	44,905			
1985	5,173.00	3,807	5,432			
1986	108.00	78	113			
1991	935.00	613	914	68	16.88	4
1992	113,889.00	72,999	108,805	10,778	17.53	615
1993	54,468.00	34,061	50,768	6,423	18.20	353
1994	38,218.00	23,284	34,704	5,425	18.89	287
1995	45,678.00	27,061	40,334	7,628	19.61	389
1996	13,387.00	7,703	11,481	2,575	20.34	127
1997	5,310.00	2,961	4,414	1,162	21.10	55
1999	8,483.00	4,418	6,585	2,322	22.68	102
	739,473.00	524,700	740,065	36,382		1,932
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.8 0.26						

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 365.20 LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R4						
NET SALVAGE PERCENT.. 0						
1964	94,094.00	67,559	70,370	23,724	21.15	1,122
1965	445,096.00	315,248	328,367	116,729	21.88	5,335
1966	469,977.00	328,293	341,955	128,022	22.61	5,662
1967	159,280.00	109,669	114,233	45,047	23.36	1,928
1968	20,603.00	13,980	14,562	6,041	24.11	251
1976	28,031.00	16,628	17,320	10,711	30.51	351
1977	12,082.00	7,032	7,325	4,757	31.35	152
1979	9,187.00	5,136	5,350	3,837	33.07	116
1981	5,959.00	3,193	3,326	2,633	34.81	76
1989	815,816.00	357,874	372,766	443,050	42.10	10,524
1990	401,012.00	170,883	177,994	223,018	43.04	5,182
1991	143,060.00	59,170	61,632	81,428	43.98	1,851
1992	13,749.00	5,512	5,741	8,008	44.93	178
2002	395,428.00	107,450	111,921	283,507	54.62	5,191
2003	1,181,773.75	305,689	318,410	863,364	55.60	15,528
2004	2,075,820.15	509,552	530,757	1,545,063	56.59	27,303
2009	184,208.96	33,060	34,436	149,773	61.54	2,434
	6,455,176.86	2,415,928	2,516,465	3,938,712		83,184
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						47.3 1.29

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 366.30 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1966	85,985.00	69,711	75,174	10,811	10.41	1,039
2004	898,180.86	287,580	310,118	588,063	37.39	15,728
2005	57,818.26	17,556	18,932	38,886	38.30	1,015
2016	504,088.49	58,197	62,758	441,330	48.65	9,072
	1,546,072.61	433,044	466,982	1,079,091		26,854
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					40.2	1.74



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.00 MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
1931	541.00	685	707	50	6.69	7
1964	631,743.00	626,564	646,687	237,753	20.41	11,649
1965	4,159,205.00	4,073,517	4,204,346	1,618,541	21.03	76,963
1966	3,249,729.00	3,141,195	3,242,080	1,307,541	21.67	60,339
1967	98,086.00	93,534	96,538	40,782	22.32	1,827
1968	4,871.00	4,581	4,728	2,091	22.98	91
1969	17,024.00	15,781	16,288	7,546	23.65	319
1972	18,881.00	16,721	17,258	9,175	25.72	357
1976	1,227,425.00	1,016,070	1,048,703	669,692	28.61	23,408
1977	4,968.00	4,039	4,169	2,786	29.35	95
1978	12,612.00	10,062	10,385	7,272	30.11	242
1980	34,127.00	26,182	27,023	20,755	31.64	656
1981	510,647.00	383,804	396,131	318,775	32.42	9,833
1982	162,214.00	119,389	123,223	103,877	33.20	3,129
1985	29,321.00	20,173	20,821	20,228	35.60	568
1986	17,437.00	11,711	12,087	12,325	36.42	338
1989	522,156.00	324,675	335,103	395,915	38.91	10,175
1990	139,805.00	84,581	87,297	108,430	39.75	2,728
1991	940.00	553	571	745	40.60	18
1993	136,072.00	75,330	77,749	112,752	42.32	2,664
1994	132,571.00	71,085	73,368	112,231	43.19	2,599
1995	1,514.00	785	810	1,310	44.07	30
2001	536,035.70	220,310	227,386	523,064	49.45	10,578
2002	255,592.00	100,396	103,620	254,209	50.36	5,048
2003	145,757.63	54,543	56,295	147,766	51.29	2,881
2004	102,958.14	36,632	37,809	106,332	52.21	2,037
2007	65,936.81	19,755	20,389	71,923	55.02	1,307
2009	4,600,512.66	1,204,414	1,243,096	5,197,622	56.91	91,331
2010	19,347,382.59	4,697,583	4,848,455	22,237,881	57.86	384,339
2011	8,045,641.26	1,800,647	1,858,478	9,405,420	58.81	159,929
2012	31,403,683.70	6,425,068	6,631,422	37,333,735	59.77	624,623
2013	48,073,769.43	8,912,973	9,199,230	58,104,047	60.73	956,760
2014	17,931,560.05	2,976,603	3,072,202	22,031,982	61.70	357,082
2015	5,312,454.39	778,774	803,786	6,633,650	62.67	105,850
2016	4,539,331.08	577,421	595,966	5,759,098	63.64	90,495
2017	3,119,026.03	336,231	347,030	4,019,606	64.61	62,213
2018	14,893,908.12	1,313,643	1,355,833	19,495,638	65.59	297,235
2019	9,883,982.95	679,978	701,817	13,135,759	66.56	197,352

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.00 MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
2020	9,993,194.34	491,625	507,414	13,483,058	67.54	199,631
2021	5,441,231.52	161,039	166,211	7,451,513	68.52	108,749
2022	24,777,106.90	242,816	250,615	34,437,335	69.51	495,430
	219,580,954.30	41,151,468	42,473,126	264,940,210		4,360,905
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						60.8 1.99

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.21 MAINS - NORTH MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
1989	1,430,448.00	889,447	1,135,384	867,243	38.91	22,288
1990	81,695.00	49,425	63,091	51,282	39.75	1,290
1991	2,019.00	1,187	1,515	1,312	40.60	32
2004	181.00	64	82	171	52.21	3
2013	480,239.39	89,037	113,656	558,679	60.73	9,199
	1,994,582.39	1,029,160	1,313,728	1,478,687		32,812
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					45.1	1.65

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.22 MAINS - SOUTH MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
1989	14,864,615.00	9,242,758	11,893,515	8,916,946	38.91	229,168
1990	75,414.00	45,625	58,710	46,870	39.75	1,179
1991	522.00	307	395	336	40.60	8
1993	8,713.00	4,824	6,207	5,991	42.32	142
	14,949,264.00	9,293,514	11,958,827	8,970,143		230,497
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						38.9 1.54

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.23 MAINS - SOUTH MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
1999	33,516,134.00	14,995,051	16,885,496	30,037,092	47.63	630,634
2000	64,133.00	27,526	30,996	58,790	48.54	1,211
2001	603.00	248	279	565	49.45	11
2003	382,180.95	143,014	161,044	374,009	51.29	7,292
2013	918,290.41	170,253	191,717	1,093,890	60.73	18,012
	34,881,341.36	15,336,092	17,269,532	31,564,346		657,160
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					48.0	1.88

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.24 MAINS - 11.7M S MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
2003	17,466,181.89	6,535,950	7,506,282	16,946,373	51.29	330,403
	17,466,181.89	6,535,950	7,506,282	16,946,373		330,403
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					51.3	1.89

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.25 MAINS - 12M NORTH S MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
2003	10,767,917.66	4,029,419	4,560,438	10,514,647	51.29	205,004
2004	7,746,047.21	2,756,013	3,119,216	7,725,250	52.21	147,965
2005	16,294.30	5,495	6,219	16,593	53.14	312
2013	83,391.98	15,461	17,499	99,250	60.73	1,634
	18,613,651.15	6,806,388	7,703,372	18,355,740		354,915
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						51.7 1.91

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.26 MAINS - 38M NORTH S MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
2003	38,081,707.37	14,250,403	16,212,422	37,101,968	51.29	723,376
2004	30,150,968.21	10,727,594	12,204,587	30,006,768	52.21	574,732
	68,232,675.58	24,977,997	28,417,009	67,108,737		1,298,108
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						51.7 1.90



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 368.00 COMPRESSOR STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. -5						
2008	7,723,454.21	2,492,332	3,215,299	4,894,328	31.17	157,020
	7,723,454.21	2,492,332	3,215,299	4,894,328		157,020
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					31.2	2.03

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 369.00 MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R2.5						
NET SALVAGE PERCENT.. -10						
1965	14,697.00	13,260	16,167			
1966	25,913.00	23,185	28,504			
1967	5,028.00	4,460	5,531			
1977	45,443.00	35,801	49,987			
1987	26,938.00	17,601	29,632			
1992	77,606.00	44,664	85,367			
2002	11,991.00	4,838	10,955	2,235	31.66	71
2003	189,080.78	72,838	164,938	43,051	32.49	1,325
2004	12,068.68	4,426	10,022	3,254	33.33	98
2006	133,313.77	43,906	99,423	47,222	35.03	1,348
2012	33,883.82	7,231	16,374	20,898	40.30	519
2013	3,180,851.99	615,813	1,394,477	2,104,460	41.20	51,079
2014	106,367.62	18,463	41,809	75,195	42.11	1,786
2015	106,367.62	16,334	36,987	80,017	43.02	1,860
	3,969,550.28	922,820	1,990,173	2,376,332		58,086

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 40.9 1.46

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 374.20 LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1900	208,257.00	205,398	208,257			
1952	1,813.00	1,393	1,813			
1956	11,140.00	8,232	11,140			
1960	200.00	141	200			
1962	100.00	69	100			
1963	3,425.00	2,334	3,425			
1964	750.00	505	750			
1968	9,669.00	6,152	9,669			
1971	2,507.00	1,524	2,507			
1974	3,304.00	1,910	3,304			
1975	3,640.00	2,068	3,640			
1976	804.00	449	804			
1977	10,277.00	5,629	10,277			
1978	6,845.00	3,678	6,845			
1979	1,589.00	837	1,589			
1980	1,565.00	808	1,565			
1981	8,720.00	4,409	8,720			
1982	1,039.00	514	1,039			
1983	252.00	122	252			
1984	764.00	361	764			
1985	4,779.00	2,209	4,779			
1986	3,752.00	1,692	3,752			
1987	9,733.00	4,280	9,733			
1988	3,902.00	1,672	3,902			
1989	74,994.00	31,278	74,994			
1990	10,006.00	4,060	10,006			
1991	185,065.00	72,940	185,065			
1992	64,966.00	24,851	64,966			
1993	29,877.00	11,082	29,877			
1994	43,236.00	15,525	43,236			
1995	112,714.00	39,149	112,714			
1996	18,109.00	6,072	18,109			
1997	35,832.00	11,591	35,832			
1998	15,125.00	4,709	15,125			
1999	23,933.00	7,161	23,933			
2000	14,758.00	4,237	14,758			
2001	52,915.00	14,541	52,915			
2002	123,008.00	32,293	123,008			
2003	301,674.10	75,458	301,674			

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 374.20 LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
2009	2,201.96	385	2,019	183	61.89	3
2010	23,150.32	3,753	19,680	3,470	62.84	55
2013	455,790.26	56,336	295,417	160,373	65.73	2,440
	1,886,180.64	671,807	1,722,154	164,027		2,498
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						65.7 0.13

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 375.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0						
NET SALVAGE PERCENT.. 0						
1913	2,827.00	2,827	2,827			
1927	2,144.00	2,144	2,144			
1953	14.00	14	14			
1956	32,928.00	31,714	20,208	12,720	1.29	9,860
1958	3,307.00	3,116	1,985	1,322	2.02	654
1959	871.00	811	517	354	2.40	148
1960	6,983.00	6,430	4,097	2,886	2.77	1,042
1961	726.00	661	421	305	3.15	97
1962	2,742.00	2,466	1,571	1,171	3.52	333
1965	298.00	258	164	134	4.66	29
1990	25,470.00	14,518	9,251	16,219	15.05	1,078
1993	1,907.00	1,011	644	1,263	16.44	77
2016	1,356,163.12	210,395	134,062	1,222,101	29.57	41,329
2018	83,178.16	9,292	5,921	77,257	31.09	2,485
	1,519,558.28	285,657	183,826	1,335,732		57,132

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.4 3.76

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.11 MAINS - HP 4" AND LESS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 67-R3						
NET SALVAGE PERCENT.. -85						
1906	38.00	70	70			
1910	1,486.00	2,729	2,665	84	0.49	84
1911	33.00	61	61			
1912	33.00	60	59	2	0.70	2
1913	846.84	1,546	1,510	57	0.90	57
1914	389.00	707	690	30	1.14	26
1915	258.22	468	457	21	1.36	15
1916	203.00	367	358	18	1.61	11
1917	91.00	164	160	8	1.83	4
1918	420.08	753	735	42	2.08	20
1919	2,922.01	5,219	5,097	309	2.32	133
1920	530.00	943	921	60	2.57	23
1921	1,394.00	2,470	2,412	167	2.82	59
1922	3,143.77	5,549	5,419	397	3.08	129
1923	824.00	1,449	1,415	109	3.32	33
1924	92.28	162	158	13	3.58	4
1925	10,444.49	18,215	17,789	1,533	3.84	399
1926	3,628.84	6,303	6,156	557	4.10	136
1927	3,028.90	5,240	5,117	486	4.35	112
1928	3,793.38	6,535	6,382	636	4.61	138
1929	598.77	1,027	1,003	105	4.87	22
1930	2,212.07	3,779	3,691	401	5.13	78
1931	736.11	1,252	1,223	139	5.38	26
1932	1,984.41	3,362	3,283	388	5.64	69
1933	404.00	682	666	81	5.90	14
1934	1,805.82	3,034	2,963	378	6.16	61
1935	105.33	176	172	23	6.42	4
1936	4,979.21	8,292	8,098	1,114	6.69	167
1937	1,098.10	1,821	1,778	253	6.95	36
1938	6.66	11	11	1	7.23	
1939	832.67	1,368	1,336	204	7.51	27
1940	4,948.84	8,091	7,902	1,253	7.79	161
1941	2,439.72	3,969	3,876	637	8.08	79
1942	9,590.13	15,523	15,160	2,582	8.38	308
1943	988.17	1,591	1,554	274	8.69	32
1944	2,042.04	3,270	3,193	585	9.01	65
1945	1,205.00	1,919	1,874	355	9.33	38
1946	23,985.29	37,968	37,080	7,293	9.67	754
1947	16,463.98	25,903	25,297	5,161	10.02	515
1948	545.40	853	833	176	10.38	17
1949	16,924.00	26,281	25,666	5,643	10.76	524
1950	17,887.98	27,585	26,940	6,153	11.15	552
1951	21,257.02	32,546	31,785	7,540	11.55	653

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.11 MAINS - HP 4" AND LESS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 67-R3						
NET SALVAGE PERCENT.. -85						
1952	18,288.79	27,795	27,145	6,689	11.96	559
1953	24,932.17	37,595	36,715	9,410	12.39	759
1954	14,568.02	21,790	21,280	5,671	12.83	442
1955	12,004.04	17,806	17,389	4,818	13.28	363
1956	244,289.23	359,189	350,786	101,149	13.75	7,356
1957	594,438.11	865,978	845,719	253,992	14.24	17,837
1958	525,118.92	757,747	740,020	231,450	14.74	15,702
1959	768,621.85	1,098,300	1,072,606	349,344	15.25	22,908
1960	997,905.59	1,411,326	1,378,309	467,816	15.78	29,646
1961	1,279,087.08	1,789,925	1,748,050	618,261	16.32	37,884
1962	4,974.67	6,886	6,725	2,478	16.87	147
1963	1,778,638.69	2,433,969	2,377,027	913,455	17.44	52,377
1964	2,844,548.43	3,847,036	3,757,036	1,505,379	18.02	83,539
1965	2,942,418.08	3,931,494	3,839,518	1,603,955	18.61	86,188
1966	3,647,121.65	4,811,613	4,699,047	2,048,128	19.22	106,562
1967	2,837,391.13	3,694,788	3,608,350	1,640,824	19.84	82,703
1968	3,036,699.92	3,901,516	3,810,242	1,807,653	20.47	88,307
1969	3,384,253.20	4,288,257	4,187,935	2,072,933	21.11	98,197
1970	3,065,153.15	3,828,007	3,738,452	1,932,081	21.77	88,750
1971	2,894,920.40	3,561,851	3,478,523	1,877,080	22.44	83,649
1972	2,918,072.63	3,536,352	3,453,620	1,944,814	23.11	84,155
1973	3,625,904.83	4,325,135	4,223,950	2,483,974	23.80	104,369
1974	2,977,929.66	3,494,632	3,412,876	2,096,294	24.50	85,563
1975	2,900,641.60	3,347,052	3,268,749	2,097,438	25.21	83,199
1976	3,803,646.91	4,314,441	4,213,506	2,823,241	25.92	108,921
1977	4,337,635.82	4,832,751	4,719,691	3,304,935	26.65	124,013
1978	6,039,037.82	6,604,905	6,450,386	4,721,834	27.39	172,393
1979	8,194,318.15	8,794,777	8,589,027	6,570,462	28.13	233,575
1980	8,538,983.73	8,985,560	8,775,346	7,021,774	28.89	243,052
1981	7,547,532.11	7,783,777	7,601,679	6,361,255	29.65	214,545
1982	7,042,007.75	7,112,741	6,946,341	6,081,373	30.42	199,914
1983	7,271,090.25	7,187,549	7,019,399	6,432,118	31.20	206,158
1984	9,839,249.81	9,511,593	9,289,073	8,913,539	31.99	278,635
1985	10,764,113.92	10,170,877	9,932,933	9,980,678	32.78	304,475
1986	10,466,331.47	9,655,411	9,429,526	9,933,187	33.59	295,719
1987	9,528,105.90	8,576,767	8,376,117	9,250,879	34.40	268,921
1988	9,729,775.17	8,537,980	8,338,237	9,661,847	35.22	274,328
1989	12,204,374.64	10,433,111	10,189,032	12,389,061	36.04	343,759
1990	12,997,727.88	10,813,395	10,560,420	13,485,377	36.87	365,755
1991	14,474,840.15	11,706,469	11,432,601	15,345,853	37.71	406,944
1992	17,011,904.29	13,359,244	13,046,710	18,425,313	38.56	477,835
1993	18,888,240.48	14,384,037	14,047,528	20,895,717	39.42	530,079
1994	20,633,836.22	15,223,613	14,867,462	23,305,135	40.28	578,578

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.11 MAINS - HP 4" AND LESS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 67-R3						
NET SALVAGE PERCENT.. -85						
1995	17,284,532.15	12,337,129	12,048,507	19,927,877	41.15	484,274
1996	16,715,533.16	11,529,606	11,259,875	19,663,861	42.02	467,964
1997	16,915,777.67	11,256,520	10,993,178	20,301,011	42.90	473,217
1998	18,876,819.06	12,097,719	11,814,698	23,107,417	43.79	527,687
1999	17,871,835.41	11,009,614	10,752,048	22,310,848	44.69	499,236
2000	16,434,681.94	9,720,210	9,492,810	20,911,352	45.58	458,784
2001	13,934,148.86	7,891,215	7,706,603	18,071,572	46.49	388,720
2002	12,945,020.05	7,005,832	6,841,933	17,106,354	47.40	360,894
2003	17,190,351.82	8,866,758	8,659,324	23,142,827	48.32	478,949
2004	16,299,606.63	7,992,993	7,806,000	22,348,272	49.24	453,864
2005	12,936,950.52	6,011,820	5,871,176	18,062,182	50.17	360,020
2006	16,100,008.40	7,068,282	6,902,922	22,882,094	51.10	447,790
2007	14,626,410.06	6,045,761	5,904,323	21,154,536	52.03	406,583
2008	8,439,780.90	3,267,145	3,190,711	12,422,884	52.98	234,483
2009	14,507,517.74	5,239,492	5,116,916	21,721,992	53.92	402,856
2010	4,351,213.15	1,457,326	1,423,232	6,626,512	54.87	120,767
2011	11,466,149.47	3,539,709	3,456,899	17,755,478	55.82	318,085
2012	17,096,675.88	4,824,665	4,711,794	26,917,056	56.78	474,059
2013	13,370,741.24	3,418,745	3,338,765	21,397,106	57.74	370,577
2014	14,730,793.42	3,375,974	3,296,994	23,954,974	58.70	408,092
2015	17,355,189.74	3,512,517	3,430,343	28,676,758	59.67	480,589
2016	21,710,291.04	3,812,772	3,723,574	36,440,464	60.64	600,931
2017	18,923,614.37	2,816,449	2,750,559	32,258,128	61.61	523,586
2018	22,810,439.53	2,777,559	2,712,579	39,486,734	62.59	630,879
2019	23,834,293.70	2,263,757	2,210,798	41,882,645	63.56	658,947
2020	19,757,953.86	1,342,197	1,310,797	35,241,418	64.54	546,040
2021	23,928,674.80	977,881	955,004	43,313,044	65.52	661,066
2022	19,972,210.67	270,094	263,775	36,684,815	66.51	551,568
	703,204,530.08	395,384,091	386,134,235	914,794,146		19,684,854

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 46.5 2.80



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.12 MAINS - HP 4" AND OVER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 67-R3						
NET SALVAGE PERCENT.. -85						
1909	15,171.92	28,068	28,068			
1910	18,924.68	34,755	30,208	4,803	0.49	4,803
1911	107.55	198	172	27	0.47	27
1912	73.85	135	117	20	0.70	20
1913	20,767.30	37,904	32,946	5,474	0.90	5,474
1915	4,079.00	7,393	6,426	1,120	1.36	824
1916	10,173.75	18,369	15,966	2,855	1.61	1,773
1917	2,712.00	4,880	4,242	775	1.83	423
1918	4,687.00	8,402	7,303	1,368	2.08	658
1919	80.00	143	124	24	2.32	10
1920	9,605.00	17,088	14,853	2,916	2.57	1,135
1921	15,536.41	27,533	23,931	4,811	2.82	1,706
1922	37,159.00	65,584	57,005	11,739	3.08	3,811
1923	17,836.00	31,362	27,259	5,738	3.32	1,728
1924	5,562.00	9,740	8,466	1,824	3.58	509
1925	19,177.00	33,444	29,069	6,408	3.84	1,669
1926	36,316.09	63,074	54,823	12,362	4.10	3,015
1927	10,785.00	18,657	16,216	3,736	4.35	859
1928	13,629.16	23,479	20,408	4,806	4.61	1,043
1929	512.68	880	765	183	4.87	38
1930	56,369.00	96,298	83,701	20,582	5.13	4,012
1931	22,611.66	38,472	33,439	8,393	5.38	1,560
1932	220.60	374	325	83	5.64	15
1934	8,805.18	14,792	12,857	3,433	6.16	557
1935	5,966.83	9,981	8,675	2,364	6.42	368
1937	13,738.29	22,779	19,799	5,617	6.95	808
1939	5,571.02	9,151	7,954	2,352	7.51	313
1940	204.00	334	290	87	7.79	11
1941	2,385.00	3,880	3,372	1,040	8.08	129
1942	1,951.00	3,158	2,745	864	8.38	103
1945	4,704.00	7,491	6,511	2,191	9.33	235
1946	10,534.00	16,675	14,494	4,994	9.67	516
1947	133,674.27	210,314	182,801	64,496	10.02	6,437
1948	30,663.40	47,939	41,668	15,059	10.38	1,451
1949	5,025.44	7,804	6,783	2,514	10.76	234
1952	27,604.00	41,951	36,463	14,604	11.96	1,221
1953	8,981.10	13,542	11,770	4,845	12.39	391
1954	14,182.88	21,214	18,439	7,799	12.83	608
1955	83,723.80	124,188	107,942	46,947	13.28	3,535
1956	1,977,027.61	2,906,909	2,526,636	1,130,865	13.75	82,245
1957	537,549.99	783,103	680,660	313,807	14.24	22,037
1958	1,405,566.79	2,028,233	1,762,906	837,393	14.74	56,811
1959	1,333,005.20	1,904,760	1,655,585	810,475	15.25	53,146

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.12 MAINS - HP 4" AND OVER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 67-R3						
NET SALVAGE PERCENT.. -85						
1960	2,417,524.52	3,419,076	2,971,803	1,500,617	15.78	95,096
1961	2,065,022.94	2,889,746	2,511,718	1,308,574	16.32	80,182
1962	1,298,743.16	1,797,705	1,562,535	840,140	16.87	49,801
1963	2,820,805.50	3,860,117	3,355,148	1,863,342	17.44	106,843
1964	2,776,712.70	3,755,293	3,264,037	1,872,881	18.02	103,933
1965	2,559,974.71	3,420,495	2,973,036	1,762,917	18.61	94,730
1966	2,796,121.84	3,688,897	3,206,327	1,966,498	19.22	102,315
1967	1,920,831.87	2,501,265	2,174,057	1,379,482	19.84	69,530
1968	2,430,809.70	3,123,075	2,714,524	1,782,474	20.47	87,077
1969	2,044,666.70	2,590,839	2,251,913	1,530,720	21.11	72,512
1970	1,772,751.02	2,213,952	1,924,330	1,355,259	21.77	62,254
1971	2,739,194.38	3,370,249	2,929,363	2,138,147	22.44	95,283
1972	1,979,812.94	2,399,295	2,085,427	1,577,227	23.11	68,249
1973	2,349,121.43	2,802,133	2,435,567	1,910,308	23.80	80,265
1974	2,675,203.26	3,139,379	2,728,695	2,220,431	24.50	90,630
1975	1,602,030.21	1,848,583	1,606,757	1,356,999	25.21	53,828
1976	1,156,683.17	1,312,015	1,140,381	999,483	25.92	38,560
1977	1,169,960.47	1,303,504	1,132,984	1,031,443	26.65	38,703
1978	2,906,507.57	3,178,852	2,763,004	2,614,035	27.39	95,438
1979	2,907,127.91	3,120,155	2,711,986	2,666,201	28.13	94,781
1980	3,064,189.87	3,224,442	2,802,630	2,866,121	28.89	99,208
1981	4,858,075.88	5,010,139	4,354,728	4,632,712	29.65	156,247
1982	4,260,449.08	4,303,243	3,740,306	4,141,525	30.42	136,145
1983	4,289,416.52	4,240,133	3,685,452	4,249,969	31.20	136,217
1984	7,345,237.69	7,100,634	6,171,751	7,416,939	31.99	231,852
1985	5,441,494.56	5,141,600	4,468,992	5,597,773	32.78	170,768
1986	5,293,392.32	4,883,266	4,244,452	5,548,324	33.59	165,178
1987	3,764,678.86	3,388,793	2,945,481	4,019,175	34.40	116,836
1988	5,190,153.46	4,554,414	3,958,619	5,643,165	35.22	160,226
1989	5,079,560.68	4,342,346	3,774,294	5,622,893	36.04	156,018
1990	4,070,149.01	3,386,140	2,943,175	4,586,601	36.87	124,399
1991	7,827,885.95	6,330,771	5,502,599	8,978,990	37.71	238,106
1992	9,227,712.32	7,246,412	6,298,458	10,772,810	38.56	279,378
1993	9,950,514.03	7,577,655	6,586,369	11,822,082	39.42	299,901
1994	9,348,646.75	6,897,418	5,995,119	11,299,877	40.28	280,533
1995	12,319,839.38	8,793,495	7,643,157	15,148,546	41.15	368,130
1996	18,556,167.02	12,799,190	11,124,839	23,204,070	42.02	552,215
1997	19,387,197.32	12,901,114	11,213,430	24,652,885	42.90	574,659
1998	11,699,351.16	7,497,845	6,517,000	15,126,800	43.79	345,440
1999	11,787,786.84	7,261,648	6,311,701	15,495,705	44.69	346,738
2000	14,910,274.76	8,818,607	7,664,984	19,919,024	45.58	437,012
2001	13,523,650.64	7,658,741	6,656,848	18,361,906	46.49	394,965
2002	17,591,699.95	9,520,610	8,275,153	24,269,492	47.40	512,015

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.12 MAINS - HP 4" AND OVER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 67-R3						
NET SALVAGE PERCENT.. -85						
2003	30,009,368.10	15,478,787	13,453,899	42,063,432	48.32	870,518
2004	18,472,504.72	9,058,538	7,873,528	26,300,606	49.24	534,131
2005	24,463,760.56	11,368,346	9,881,174	35,376,783	50.17	705,138
2006	19,846,959.00	8,713,281	7,573,436	29,143,438	51.10	570,322
2007	21,160,821.12	8,746,730	7,602,509	31,545,010	52.03	606,285
2008	20,580,851.80	7,967,105	6,924,873	31,149,703	52.98	587,952
2009	4,702,280.46	1,698,262	1,476,101	7,223,118	53.92	133,960
2010	16,824,292.46	5,634,859	4,897,724	26,227,217	54.87	477,988
2011	10,916,634.19	3,370,069	2,929,207	17,266,566	55.82	309,326
2012	18,094,439.06	5,106,233	4,438,251	29,036,461	56.78	511,385
2013	25,627,873.20	6,552,752	5,695,541	41,716,024	57.74	722,480
2014	21,486,386.65	4,924,207	4,280,037	35,469,778	58.70	604,255
2015	17,178,699.14	3,476,797	3,021,973	28,758,620	59.67	481,961
2016	18,902,601.79	3,319,684	2,885,413	32,084,400	60.64	529,096
2017	20,107,462.58	2,992,644	2,601,155	34,597,651	61.61	561,559
2018	36,968,771.74	4,501,576	3,912,693	64,479,535	62.59	1,030,189
2019	34,545,597.36	3,281,106	2,851,882	61,057,473	63.56	960,627
2020	50,462,741.93	3,428,035	2,979,590	90,376,483	64.54	1,400,317
2021	28,902,206.99	1,181,132	1,026,619	52,442,464	65.52	800,404
2022	54,506,793.03	737,123	640,695	100,196,872	66.51	1,506,493
	752,871,136.38	328,894,977	285,873,611	1,106,937,991		22,032,850
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						50.2 2.93

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 377.00 COMPRESSOR STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S3						
NET SALVAGE PERCENT.. -5						
2003	818,380.00	525,607	710,080	149,219	11.65	12,808
	818,380.00	525,607	710,080	149,219		12,808
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.7 1.57

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R2.5						
NET SALVAGE PERCENT.. -25						
1949	13,147.00	14,345	15,671	763	6.99	109
1950	2,585.00	2,806	3,065	166	7.24	23
1952	3,901.00	4,189	4,576	300	7.75	39
1953	7,573.00	8,086	8,833	633	8.02	79
1954	3,935.00	4,177	4,563	356	8.29	43
1955	13,406.00	14,146	15,454	1,304	8.57	152
1956	48,458.00	50,815	55,512	5,060	8.86	571
1957	30,840.00	32,129	35,099	3,451	9.16	377
1958	42,875.00	44,366	48,467	5,127	9.47	541
1959	36,309.00	37,299	40,747	4,639	9.80	473
1960	107,203.00	109,299	119,402	14,602	10.14	1,440
1961	66,657.00	67,429	73,662	9,659	10.49	921
1962	43,697.00	43,836	47,888	6,733	10.86	620
1963	66,875.00	66,511	72,659	10,935	11.24	973
1964	82,595.00	81,413	88,938	14,306	11.63	1,230
1965	155,371.00	151,698	165,720	28,494	12.04	2,367
1966	167,417.00	161,823	176,781	32,490	12.47	2,605
1967	95,011.00	90,886	99,287	19,477	12.91	1,509
1968	116,937.00	110,638	120,864	25,307	13.37	1,893
1969	103,704.00	96,987	105,952	23,678	13.85	1,710
1970	44,816.00	41,414	45,242	10,778	14.34	752
1971	104,156.00	95,042	103,827	26,368	14.85	1,776
1972	154,237.00	138,919	151,760	41,036	15.37	2,670
1973	127,698.00	113,477	123,966	35,656	15.90	2,243
1974	68,713.00	60,187	65,750	20,141	16.46	1,224
1975	47,726.00	41,196	45,004	14,654	17.02	861
1976	46,498.00	39,523	43,176	14,946	17.60	849
1977	209,427.00	175,157	191,347	70,437	18.20	3,870
1978	42,548.00	35,005	38,241	14,944	18.80	795
1979	159,252.00	128,777	140,680	58,385	19.42	3,006
1980	159,436.00	126,606	138,308	60,987	20.06	3,040
1981	122,295.00	95,335	104,147	48,722	20.70	2,354
1982	246,534.00	188,488	205,910	102,258	21.36	4,787
1983	244,704.00	183,360	200,308	105,572	22.03	4,792
1984	596,419.00	437,690	478,146	267,378	22.71	11,774
1985	270,231.00	194,077	212,016	125,773	23.40	5,375
1986	371,597.00	260,963	285,084	179,412	24.10	7,444
1987	307,786.00	211,184	230,704	154,028	24.81	6,208
1988	269,971.00	180,820	197,534	139,930	25.53	5,481
1989	300,385.00	196,208	214,344	161,137	26.26	6,136
1990	242,524.00	154,333	168,598	134,557	27.00	4,984
1991	539,949.00	334,397	365,306	309,630	27.75	11,158
1992	464,086.00	279,507	305,342	274,766	28.50	9,641

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R2.5						
NET SALVAGE PERCENT.. -25						
1993	273,224.00	159,775	174,543	166,987	29.27	5,705
1994	575,924.00	326,578	356,764	363,141	30.05	12,085
1995	674,159.00	370,324	404,554	438,145	30.83	14,212
1996	1,135,006.00	603,100	658,846	759,912	31.62	24,033
1997	864,430.00	443,615	484,619	595,918	32.42	18,381
1998	600,436.00	297,081	324,541	426,004	33.23	12,820
1999	781,675.00	372,185	406,587	570,507	34.05	16,755
2000	942,827.00	431,343	471,213	707,321	34.87	20,285
2001	85,371.00	37,447	40,908	65,806	35.70	1,843
2002	729,133.00	305,908	334,184	577,232	36.54	15,797
2003	572,105.94	229,100	250,276	464,856	37.38	12,436
2004	933,123.87	355,648	388,521	777,884	38.23	20,347
2005	448,837.66	162,294	177,295	383,752	39.09	9,817
2006	341,438.24	116,708	127,496	299,302	39.96	7,490
2007	921,693.36	296,831	324,268	827,849	40.83	20,276
2008	1,038,546.13	313,693	342,688	955,495	41.71	22,908
2009	1,015,593.77	286,448	312,925	956,567	42.59	22,460
2010	1,776,089.88	465,003	507,984	1,712,128	43.48	39,377
2011	1,339,039.11	323,194	353,067	1,320,732	44.38	29,760
2012	1,530,066.81	338,011	369,254	1,543,330	45.28	34,084
2013	4,230,410.08	847,986	926,367	4,361,646	46.18	94,449
2014	3,336,812.27	599,875	655,322	3,515,693	47.09	74,659
2015	810,260.45	128,720	140,618	872,208	48.01	18,167
2016	1,873,752.16	258,484	282,376	2,059,814	48.93	42,097
2017	845,963.08	99,020	108,173	949,281	49.85	19,043
2018	2,723,320.39	261,200	285,343	3,118,807	50.78	61,418
2019	1,166,726.01	87,242	95,306	1,363,102	51.71	26,361
2020	2,955,890.46	157,881	172,474	3,522,389	52.65	66,902
2021	4,744,404.91	153,126	167,279	5,763,227	53.58	107,563
2022	4,236,554.77	45,278	49,463	5,246,230	54.53	96,208
	49,852,298.35	13,777,641	15,051,134	47,264,239		1,086,633

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 43.5 2.18

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R2						
NET SALVAGE PERCENT.. -25						
1956	90,440.00	96,183	113,050			
1957	415.00	438	519			
1958	6,571.00	6,883	8,214			
1959	140.00	145	174	1	8.43	
1960	126,308.00	130,192	156,149	1,736	8.77	198
1961	9,016.00	9,217	11,055	215	9.11	24
1962	8,119.00	8,227	9,867	282	9.47	30
1963	18,246.00	18,324	21,977	830	9.83	84
1964	64,144.00	63,807	76,529	3,651	10.21	358
1965	56,664.00	55,828	66,959	3,871	10.59	366
1966	20,596.00	20,086	24,091	1,654	10.99	151
1967	7,958.00	7,681	9,212	736	11.39	65
1968	12,365.00	11,805	14,159	1,297	11.81	110
1969	35,068.00	33,104	39,704	4,131	12.24	338
1970	9,987.00	9,318	11,176	1,308	12.68	103
1971	29,853.00	27,517	33,003	4,313	13.13	328
1972	84,792.00	77,161	92,545	13,445	13.60	989
1973	28,044.00	25,191	30,214	4,841	14.07	344
1974	8,729.00	7,734	9,276	1,635	14.56	112
1975	11,764.00	10,276	12,325	2,380	15.06	158
1976	19,765.00	17,013	20,405	4,301	15.57	276
1977	47,198.00	40,012	47,989	11,008	16.09	684
1980	97,555.00	78,702	94,393	27,551	17.73	1,554
1981	36,714.00	29,096	34,897	10,996	18.30	601
1982	29,076.00	22,621	27,131	9,214	18.88	488
1983	6,973.00	5,320	6,381	2,335	19.48	120
1984	29,051.00	21,730	26,062	10,252	20.08	511
1986	84,113.00	60,309	72,333	32,808	21.32	1,539
1987	12,520.00	8,777	10,527	5,123	21.96	233
1988	31,995.00	21,917	26,287	13,707	22.60	607
1989	4,938.00	3,301	3,959	2,214	23.26	95
1990	2,738.00	1,784	2,140	1,282	23.93	54
1991	34,959.00	22,199	26,625	17,074	24.60	694
1992	1,830.00	1,130	1,355	932	25.29	37
1993	979.00	588	705	519	25.98	20
1996	28,701.00	15,692	18,821	17,055	28.13	606
2000	206,808.00	97,717	117,200	141,310	31.10	4,544
2001	40,639.00	18,420	22,093	28,706	31.87	901
2002	220.00	95	114	161	32.64	5
2004	302.39	119	143	235	34.21	7
2005	155,306.30	58,201	69,805	124,328	35.01	3,551
2009	128,042.07	37,580	45,073	114,980	38.26	3,005
2010	135,098.10	36,848	44,195	124,678	39.09	3,190

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R2						
NET SALVAGE PERCENT.. -25						
2011	59,276.55	14,923	17,898	56,198	39.93	1,407
2012	76,366.14	17,621	21,134	74,324	40.77	1,823
2013	2,090,302.12	437,396	524,602	2,088,276	41.63	50,163
2014	832,210.86	156,456	187,650	852,614	42.48	20,071
2015	898,196.35	149,325	179,097	943,648	43.35	21,768
2016	2,565,294.90	370,685	444,591	2,762,028	44.22	62,461
2017	3,101,387.30	380,695	456,597	3,420,137	45.09	75,851
2018	2,742,492.22	276,306	331,395	3,096,720	45.97	67,364
2019	2,555,967.51	200,643	240,646	2,954,313	46.86	63,046
2020	1,699,020.09	95,570	114,624	2,009,151	47.75	42,076
2021	1,485,514.96	50,136	60,132	1,796,762	48.65	36,932
2022	1,491,748.79	16,782	20,128	1,844,558	49.55	37,226
	21,362,517.65	3,384,826	4,057,325	22,645,822		507,268
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						44.6 2.37



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R1.5						
NET SALVAGE PERCENT.. -110						
1905	1,391.60	2,730	2,898	24	4.27	6
1906	133.00	260	276	3	4.53	1
1908	1,175.00	2,277	2,417	50	5.01	10
1909	53.00	102	108	3	5.23	1
1910	2,807.67	5,401	5,733	163	5.46	30
1912	1,105.60	2,111	2,241	81	5.91	14
1913	35.43	67	71	3	6.13	
1914	170.72	323	343	16	6.37	3
1915	7.13	13	14	1	6.60	
1918	1,664.41	3,101	3,292	203	7.34	28
1919	2,237.74	4,150	4,405	294	7.60	39
1920	2,462.15	4,545	4,824	347	7.86	44
1922	784.36	1,434	1,522	125	8.40	15
1923	1,329.26	2,419	2,568	223	8.67	26
1924	5,469.48	9,906	10,515	971	8.94	109
1925	7,855.78	14,155	15,025	1,472	9.23	159
1926	4,572.61	8,198	8,702	900	9.51	95
1927	232.27	414	439	49	9.79	5
1928	2,761.01	4,899	5,200	598	10.08	59
1929	4,046.62	7,141	7,580	918	10.38	88
1930	4,569.31	8,020	8,513	1,083	10.67	101
1931	12,146.35	21,202	22,505	3,002	10.97	274
1932	7,589.08	13,171	13,980	1,957	11.28	173
1933	2,507.36	4,327	4,593	672	11.58	58
1934	3,282.62	5,633	5,979	915	11.89	77
1935	6,961.46	11,873	12,603	2,016	12.21	165
1936	5,810.08	9,849	10,454	1,747	12.53	139
1937	8,530.14	14,372	15,255	2,658	12.85	207
1938	14,474.44	24,233	25,722	4,674	13.18	355
1939	18,347.87	30,522	32,398	6,133	13.51	454
1940	12,820.67	21,187	22,489	4,434	13.85	320
1941	14,837.77	24,352	25,849	5,310	14.20	374
1942	22,039.62	35,923	38,131	8,152	14.55	560
1943	5,176.70	8,377	8,892	1,979	14.91	133
1944	17,992.51	28,908	30,684	7,100	15.27	465
1945	22,468.24	35,830	38,032	9,151	15.64	585
1946	47,115.36	74,557	79,139	19,803	16.02	1,236
1947	35,625.43	55,937	59,375	15,438	16.40	941
1948	17,632.27	27,463	29,151	7,877	16.79	469
1949	23,991.40	37,058	39,335	11,047	17.19	643
1950	20,894.57	31,998	33,964	9,915	17.60	563
1951	51,671.82	78,445	83,266	25,245	18.01	1,402
1952	13,269.00	19,964	21,191	6,674	18.43	362

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR CURVE.. IOWA 65-R1.5						
NET SALVAGE PERCENT.. -110						
1953	79,278.96	118,180	125,443	41,043	18.86	2,176
1954	13,446.55	19,853	21,073	7,165	19.30	371
1955	15,426.24	22,552	23,938	8,457	19.75	428
1956	221,940.70	321,233	340,974	125,101	20.20	6,193
1957	205,110.95	293,825	311,881	118,852	20.66	5,753
1958	52,344.56	74,190	78,749	31,175	21.13	1,475
1959	277,125.61	388,484	412,358	169,606	21.61	7,848
1960	642,526.56	890,744	945,483	403,823	22.09	18,281
1961	741,048.63	1,015,360	1,077,757	478,445	22.59	21,180
1962	795,504.29	1,077,126	1,143,319	527,240	23.09	22,834
1963	968,673.41	1,295,632	1,375,253	658,961	23.60	27,922
1964	1,179,677.31	1,558,038	1,653,784	823,538	24.12	34,143
1965	1,389,622.29	1,811,973	1,923,325	994,882	24.64	40,377
1966	1,614,933.80	2,077,616	2,205,292	1,186,069	25.18	47,104
1967	1,628,549.26	2,066,712	2,193,718	1,226,235	25.72	47,676
1968	1,749,254.44	2,188,816	2,323,326	1,350,108	26.27	51,394
1969	1,997,570.25	2,463,370	2,614,752	1,580,146	26.83	58,895
1970	2,031,609.91	2,468,613	2,620,317	1,646,064	27.39	60,097
1971	2,306,742.44	2,760,444	2,930,082	1,914,077	27.96	68,458
1972	2,568,299.07	3,025,282	3,211,195	2,182,233	28.54	76,462
1973	2,718,692.74	3,150,652	3,344,270	2,364,985	29.13	81,187
1974	2,399,117.08	2,734,554	2,902,601	2,135,545	29.72	71,855
1975	2,189,117.76	2,452,762	2,603,492	1,993,655	30.32	65,754
1976	2,734,409.30	3,009,805	3,194,767	2,547,493	30.93	82,363
1977	3,272,931.45	3,537,064	3,754,428	3,118,728	31.55	98,850
1978	4,657,010.39	4,939,542	5,243,093	4,536,629	32.17	141,020
1979	5,748,365.48	5,980,013	6,347,504	5,724,064	32.80	174,514
1980	7,195,890.52	7,339,441	7,790,473	7,320,897	33.43	218,992
1981	7,315,027.89	7,307,340	7,756,400	7,605,159	34.08	223,156
1982	5,874,667.89	5,747,099	6,100,277	6,236,526	34.72	179,623
1983	6,473,638.28	6,194,942	6,575,641	7,018,999	35.38	198,389
1984	8,339,171.30	7,802,412	8,281,895	9,230,365	36.04	256,114
1985	10,083,628.88	9,216,265	9,782,634	11,392,987	36.71	310,351
1986	9,723,597.81	8,676,677	9,209,887	11,209,668	37.38	299,884
1987	10,119,775.67	8,807,909	9,349,183	11,902,346	38.06	312,726
1988	11,459,835.75	9,722,525	10,320,005	13,745,650	38.74	354,818
1989	15,037,565.10	12,422,502	13,185,905	18,392,982	39.43	466,472
1990	17,153,072.49	13,782,528	14,629,509	21,391,943	40.13	533,066
1991	18,661,923.19	14,572,816	15,468,362	23,721,677	40.83	580,986
1992	19,354,548.87	14,675,935	15,577,818	25,066,735	41.53	603,581
1993	21,484,580.20	15,797,934	16,768,768	28,348,850	42.24	671,138
1994	21,950,960.59	15,630,577	16,591,126	29,505,891	42.96	686,822
1995	20,303,949.40	13,985,360	14,844,805	27,793,489	43.68	636,298

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R1.5						
NET SALVAGE PERCENT.. -110						
1996	23,045,528.70	15,337,537	16,280,078	32,115,532	44.40	723,323
1997	25,032,859.37	16,069,819	17,057,361	35,511,644	45.13	786,874
1998	24,159,346.64	14,939,319	15,857,388	34,877,240	45.86	760,515
1999	26,302,156.24	15,635,790	16,596,660	38,637,868	46.60	829,139
2000	23,078,593.98	13,167,469	13,976,652	34,488,395	47.34	728,525
2001	23,121,345.17	12,639,306	13,416,032	35,138,793	48.08	730,840
2002	24,233,724.82	12,660,110	13,438,115	37,452,707	48.83	767,002
2003	25,334,363.36	12,613,169	13,388,289	39,813,874	49.59	802,861
2004	23,648,102.81	11,200,546	11,888,856	37,772,160	50.34	750,341
2005	21,702,250.34	9,746,155	10,345,088	35,229,638	51.10	689,425
2006	22,751,785.18	9,651,307	10,244,411	37,534,338	51.87	723,623
2007	19,972,152.56	7,975,180	8,465,280	33,476,240	52.64	635,947
2008	19,847,826.62	7,432,039	7,888,762	33,791,674	53.41	632,684
2009	19,857,772.97	6,941,602	7,368,186	34,333,137	54.18	633,687
2010	10,680,779.52	3,464,482	3,677,386	18,752,251	54.96	341,198
2011	16,289,369.66	4,873,226	5,172,701	29,034,975	55.74	520,900
2012	18,461,646.05	5,052,048	5,362,512	33,406,945	56.53	590,960
2013	24,642,592.60	6,114,197	6,489,934	45,259,510	57.32	789,594
2014	27,229,519.71	6,061,291	6,433,777	50,748,214	58.11	873,313
2015	27,021,365.04	5,316,427	5,643,138	51,101,729	58.91	867,454
2016	29,453,632.54	5,033,567	5,342,896	56,509,732	59.71	946,403
2017	32,037,750.87	4,647,652	4,933,265	62,346,012	60.51	1,030,342
2018	33,824,888.32	4,021,847	4,269,002	66,763,263	61.32	1,088,768
2019	39,366,850.03	3,649,898	3,874,196	78,796,189	62.13	1,268,247
2020	38,919,168.87	2,577,772	2,736,185	78,994,070	62.95	1,254,870
2021	43,937,289.64	1,745,716	1,852,996	90,415,312	63.77	1,417,835
2022	35,590,853.91	471,614	500,596	74,240,197	64.59	1,149,407
	954,703,727.69	443,160,629	470,394,277	1,534,483,551		30,191,891
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						50.8 3.16

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-L1						
NET SALVAGE PERCENT.. 0						
1910	64,426.44	64,426	64,426			
1943	29.00	26	17	12	2.81	4
1946	1,158.03	1,029	669	489	3.33	147
1947	735.00	649	422	313	3.50	89
1948	173.00	152	99	74	3.68	20
1950	160.00	139	90	70	4.03	17
1951	66.00	57	37	29	4.22	7
1952	381.00	325	211	170	4.40	39
1953	566.00	479	312	254	4.59	55
1954	326.00	274	178	148	4.77	31
1955	815.00	680	442	373	4.96	75
1956	19,496.93	16,150	10,505	8,992	5.15	1,746
1957	21,443.00	17,619	11,460	9,983	5.35	1,866
1958	14,099.78	11,496	7,478	6,622	5.54	1,195
1959	145.04	117	76	69	5.74	12
1960	7,237.98	5,805	3,776	3,462	5.94	583
1961	118,514.85	94,258	61,311	57,204	6.14	9,317
1962	169,556.67	133,724	86,982	82,575	6.34	13,024
1963	176,360.63	137,856	89,670	86,691	6.55	13,235
1964	174,578.69	135,241	87,969	86,610	6.76	12,812
1965	251,395.10	192,988	125,531	125,864	6.97	18,058
1966	151,760.32	115,440	75,089	76,671	7.18	10,678
1967	327,450.31	246,678	160,454	166,996	7.40	22,567
1968	271,864.29	202,811	131,920	139,944	7.62	18,365
1969	178,980.90	132,208	85,996	92,985	7.84	11,860
1970	309,350.80	226,238	147,158	162,193	8.06	20,123
1971	290,605.36	210,302	136,793	153,812	8.29	18,554
1972	671,329.45	480,672	312,657	358,672	8.52	42,098
1973	315,980.94	223,819	145,585	170,396	8.75	19,474
1974	398,466.09	279,058	181,516	216,950	8.99	24,132
1975	36,402.30	25,202	16,393	20,009	9.23	2,168
1976	1,501.02	1,027	668	833	9.47	88
1977	301,503.71	203,817	132,574	168,930	9.72	17,380
1978	288,106.78	192,360	125,122	162,985	9.97	16,348
1979	515,434.09	339,841	221,052	294,382	10.22	28,805
1980	470,329.44	306,029	199,059	271,270	10.48	25,885
1981	771,720.89	495,445	322,266	449,455	10.74	41,849
1982	621,957.20	393,699	256,085	365,872	11.01	33,231
1983	195,947.83	122,336	79,574	116,374	11.27	10,326
1984	253,176.22	155,703	101,278	151,898	11.55	13,151
1985	362,639.61	219,760	142,945	219,695	11.82	18,587
1986	758,418.15	452,267	294,181	464,237	12.11	38,335
1987	31,272.11	18,357	11,940	19,332	12.39	1,560

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-L1						
NET SALVAGE PERCENT.. 0						
1988	483,011.11	278,857	181,385	301,626	12.68	23,788
1989	738,750.11	419,115	272,617	466,133	12.98	35,912
1990	1,194,883.79	665,945	433,170	761,714	13.28	57,358
1991	628,996.42	344,269	223,933	405,063	13.58	29,828
1992	1,134,824.80	609,401	396,390	738,435	13.89	53,163
1993	1,054,102.00	554,806	360,878	693,224	14.21	48,784
1994	1,059,351.95	546,276	355,330	704,022	14.53	48,453
1995	1,179,089.23	595,440	387,309	791,780	14.85	53,319
1996	1,251,072.12	617,617	401,734	849,338	15.19	55,914
1997	1,304,342.29	629,567	409,507	894,835	15.52	57,657
1998	1,403,612.34	661,101	430,019	973,593	15.87	61,348
1999	1,440,722.63	661,767	430,452	1,010,271	16.22	62,286
2000	1,273,954.67	570,311	370,964	902,991	16.57	54,496
2001	1,801,510.85	784,252	510,123	1,291,388	16.94	76,233
2002	1,899,162.31	803,972	522,950	1,376,212	17.30	79,550
2003	2,772,798.89	1,138,705	740,680	2,032,119	17.68	114,939
2004	2,883,270.72	1,147,542	746,428	2,136,843	18.06	118,319
2005	294,931.04	113,548	73,858	221,073	18.45	11,982
2006	6,419,429.38	2,383,727	1,550,516	4,868,913	18.86	258,161
2007	4,956,971.23	1,772,960	1,153,237	3,803,734	19.27	197,391
2008	3,992,437.41	1,369,406	890,742	3,101,695	19.71	157,367
2009	439,742.81	143,941	93,628	346,115	20.18	17,151
2011	1,979.67	580	377	1,603	21.21	76
2012	5,048,717.03	1,383,348	899,810	4,148,907	21.78	190,492
2013	3,580,551.06	909,460	591,566	2,988,985	22.38	133,556
2014	2,878,498.88	668,762	435,002	2,443,497	23.03	106,101
2015	3,100,226.68	650,025	422,814	2,677,413	23.71	112,923
2017	6,206,258.51	993,001	645,906	5,560,353	25.20	220,649
2018	4,603,849.83	613,831	399,272	4,204,578	26.00	161,715
2019	4,830,668.54	508,814	330,962	4,499,707	26.84	167,649
2020	2,443,899.74	186,543	121,338	2,322,562	27.71	83,817
2021	29,266,678.83	1,355,925	881,974	28,384,705	28.61	992,125
2022	2,894,781.53	45,361	29,505	2,865,277	29.53	97,029
	113,008,940.35	29,984,734	19,526,342	93,482,598		4,447,427

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 21.0 3.94

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.10 METERS - ELECTRIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 16-S4						
NET SALVAGE PERCENT.. 0						
2014	1,696,938.46	899,377	1,425,093	271,845	7.52	36,150
	1,696,938.46	899,377	1,425,093	271,845		36,150
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						7.5 2.13

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.20 METERS - ERT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-R0.5						
NET SALVAGE PERCENT.. 0						
2006	8,309,121.42	5,400,929	4,979,944	3,329,177	4.90	679,424
2007	2,775,100.71	1,716,594	1,582,791	1,192,310	5.34	223,279
2008	5,895,840.23	3,449,067	3,180,223	2,715,617	5.81	467,404
2009	8,940,669.43	4,923,716	4,539,928	4,400,741	6.29	699,641
2010	573,874.12	295,953	272,884	300,990	6.78	44,394
2011	496,924.53	237,813	219,276	277,649	7.30	38,034
2012	628,798.68	277,571	255,935	372,864	7.82	47,681
2013	2,683,198.53	1,079,021	994,916	1,688,283	8.37	201,706
2016	0.22					
2017	436,112.85	103,734	95,648	340,465	10.67	31,909
2018	196,983.35	38,552	35,547	161,436	11.26	14,337
2019	1,381,474.71	211,172	194,712	1,186,763	11.86	100,064
2020	625,674.35	68,824	63,459	562,215	12.46	45,122
2021	6,206,202.29	412,278	380,143	5,826,059	13.07	445,758
2022	1,470,060.33	32,547	30,010	1,440,050	13.69	105,190
	40,620,035.75	18,247,771	16,825,416	23,794,620		3,143,943

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.6 7.74

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 26-L1						
NET SALVAGE PERCENT.. 0						
1956	6,139.96	5,467	1,249	4,891	2.85	1,716
1957	37,441.00	33,092	7,558	29,883	3.02	9,895
1958	18,120.95	15,891	3,629	14,492	3.20	4,529
1959	17,807.17	15,492	3,538	14,269	3.38	4,222
1960	5,957.43	5,142	1,174	4,783	3.56	1,344
1961	1,401.59	1,200	274	1,128	3.74	302
1964	82,750.46	69,065	15,774	66,976	4.30	15,576
1965	136,905.37	113,263	25,869	111,036	4.49	24,730
1966	127,561.94	104,601	23,891	103,671	4.68	22,152
1967	319,933.27	259,885	59,357	260,576	4.88	53,397
1968	316,560.96	254,711	58,176	258,385	5.08	50,863
1969	84.19	67	15	69	5.28	13
1970	202,003.24	159,427	36,413	165,590	5.48	30,217
1971	113,233.06	88,452	20,202	93,031	5.69	16,350
1972	671,866.92	519,407	118,632	553,235	5.90	93,769
1973	298,584.58	228,417	52,170	246,415	6.11	40,330
1974	214,238.39	162,161	37,037	177,201	6.32	28,038
1975	5,896.92	4,414	1,008	4,889	6.54	748
1976	255,224.00	188,866	43,137	212,087	6.76	31,374
1978	531,412.46	383,845	87,670	443,742	7.22	61,460
1979	1,074.42	767	175	899	7.45	121
1980	822,262.99	579,383	132,331	689,932	7.68	89,835
1981	881,116.31	612,711	139,943	741,173	7.92	93,582
1982	497,064.73	341,061	77,898	419,167	8.16	51,369
1983	442,127.24	299,117	68,318	373,809	8.41	44,448
1984	1,174.82	784	179	996	8.66	115
1985	918.50	604	138	780	8.91	88
1986	1,109,975.85	718,498	164,104	945,872	9.17	103,149
1988	1,008,122.72	632,012	144,351	863,772	9.70	89,049
1989	1,729,005.61	1,066,001	243,474	1,485,532	9.97	149,000
1990	2,267,450.92	1,373,554	313,719	1,953,732	10.25	190,608
1991	659,095.10	392,162	89,569	569,526	10.53	54,086
1992	1,367,484.77	798,406	182,355	1,185,130	10.82	109,531
1995	608,807.91	334,613	76,425	532,383	11.71	45,464
1997	225,924.86	118,785	27,130	198,795	12.33	16,123
1999	700,347.81	350,713	80,103	620,245	12.98	47,785
2000	1,895,559.61	924,445	211,142	1,684,418	13.32	126,458
2001	2,437,542.08	1,156,906	264,236	2,173,306	13.66	159,100
2002	78,803.23	36,340	8,300	70,503	14.01	5,032
2003	1,106.41	495	113	993	14.36	69
2004	4,271,037.88	1,851,324	422,841	3,848,197	14.73	261,249
2005	76,055.16	31,885	7,283	68,772	15.10	4,554
2007	1,390,594.65	542,332	123,868	1,266,727	15.86	79,869



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 26-L1						
NET SALVAGE PERCENT.. 0						
2012	3,895,714.86	1,183,713	270,359	3,625,356	18.10	200,296
2013	2,999,717.13	849,160	193,948	2,805,769	18.64	150,524
2014	2,109,296.89	549,219	125,441	1,983,856	19.23	103,165
2015	2,333,393.18	550,144	125,652	2,207,741	19.87	111,109
2017	4,952,573.32	899,090	205,352	4,747,221	21.28	223,084
2018	3,070,080.75	466,407	106,527	2,963,554	22.05	134,402
2019	3,983,765.27	479,566	109,533	3,874,232	22.87	169,402
2021	11,024,942.07	589,393	134,616	10,890,326	24.61	442,516
2022	2,834,388.63	51,246	11,705	2,822,684	25.53	110,563
	63,039,649.54	20,393,701	4,657,901	58,381,749		3,856,770
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.1 6.12

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.10 METER INSTALLATIONS - ELECTRIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L3						
NET SALVAGE PERCENT.. 0						
2012	481,019.77	305,106	247,267	233,753	5.12	45,655
	481,019.77	305,106	247,267	233,753		45,655
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.1 9.49

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.20 METER INSTALLATIONS - ERT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 18-R3						
NET SALVAGE PERCENT.. 0						
2006	888,188.47	671,080	752,683	135,505	4.40	30,797
2007	1,457,732.76	1,055,238	1,183,554	274,179	4.97	55,167
2008	1,071,021.59	738,405	828,194	242,828	5.59	43,440
2010	4,611,421.05	2,828,323	3,172,244	1,439,177	6.96	206,778
2020	566,940.00	76,854	86,200	480,740	15.56	30,896
2021	981,953.28	80,196	89,948	892,005	16.53	53,963
2022	2,436,752.58	66,328	74,393	2,362,360	17.51	134,915
	12,014,009.73	5,516,424	6,187,216	5,826,794		555,956
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.5 4.63

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 383.00 HOUSE REGULATORS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S2						
NET SALVAGE PERCENT.. 0						
2003	1,944.74	987	984	961	17.23	56
2004	50,974.78	24,818	24,752	26,223	17.96	1,460
2005	111,010.40	51,668	51,530	59,480	18.71	3,179
2006	99,709.20	44,185	44,067	55,642	19.49	2,855
2007	106,166.87	44,590	44,471	61,696	20.30	3,039
2008	81,705.03	32,379	32,292	49,413	21.13	2,339
2009	36,113.86	13,424	13,388	22,726	21.99	1,033
2010	82,233.28	28,500	28,424	53,809	22.87	2,353
2011	49,737.69	15,959	15,916	33,822	23.77	1,423
2012	155,612.57	45,839	45,716	109,897	24.69	4,451
2013	340,537.54	91,165	90,921	249,617	25.63	9,739
2014	169,400.03	40,753	40,644	128,756	26.58	4,844
2015	215,465.95	45,864	45,741	169,725	27.55	6,161
2016	177,698.56	32,849	32,761	144,938	28.53	5,080
2017	199,129.42	31,235	31,151	167,978	29.51	5,692
2018	322,261.36	41,343	41,232	281,029	30.51	9,211
2019	220,007.55	22,001	21,942	198,066	31.50	6,288
2020	134,038.69	9,574	9,549	124,490	32.50	3,830
2021	125,469.00	5,378	5,363	120,106	33.50	3,585
2022	141,552.00	2,023	2,018	139,534	34.50	4,044
	2,820,768.52	624,534	622,862	2,197,907		80,662

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 27.2 2.86

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 386.00 OTHER PROPERTY ON CUSTOMERS' PREMISES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-S6						
NET SALVAGE PERCENT.. 0						
2017	1,162,110.41	639,161	634,047	528,063	4.50	117,347
	1,162,110.41	639,161	634,047	528,063		117,347
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.5 10.10

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.10 OTHER EQUIPMENT - CATHODIC PROTECTION TESTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S3						
NET SALVAGE PERCENT.. 0						
1989	18,825.00	15,863	18,825			
1990	9,104.00	7,575	9,104			
1991	18,219.00	14,952	17,975	244	5.38	45
1992	82,936.00	67,068	80,629	2,307	5.74	402
2005	9,866.13	5,528	6,646	3,220	13.19	244
2011	34,908.85	13,300	15,989	18,920	18.57	1,019
	173,858.98	124,286	149,168	24,691		1,710
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					14.4	0.98

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.20 OTHER EQUIPMENT - CALORIMETERS AT GATE STATION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 23-S0.5						
NET SALVAGE PERCENT.. 0						
1962	865.00	865	865			
1972	10,994.00	10,994	10,994			
1986	25,765.00	22,135	25,765			
1990	252.00	201	252			
1991	21,291.00	16,681	21,291			
1993	4,866.00	3,660	4,866			
1994	7,658.00	5,637	7,658			
1995	2,254.00	1,622	2,254			
1996	2,372.00	1,667	2,372			
1997	12,952.00	8,875	12,952			
1998	4,440.00	2,965	4,440			
1999	2,715.00	1,765	2,715			
	96,424.00	77,067	96,424			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.30 OTHER EQUIPMENT - METER TESTING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S4						
NET SALVAGE PERCENT.. 0						
1978	6,819.00	6,819	6,819			
1979	8,748.00	8,748	8,748			
1984	1,225.00	1,186	1,225			
1985	40,398.00	38,944	40,398			
1986	1,347.00	1,292	1,347			
1987	1,633.00	1,559	1,633			
1990	606.00	567	606			
1991	11,895.00	11,053	11,895			
	72,671.00	70,168	72,671			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-S0						
NET SALVAGE PERCENT.. -5						
1913	49,479.00	51,953	51,953			
1915	172.00	181	181			
1920	424.00	445	445			
1922	510.00	536	536			
1923	67.00	70	70			
1924	11.00	12	12			
1925	92.00	97	97			
1927	545.00	569	572			
1930	177.00	181	186			
1936	33.00	32	35			
1937	236.00	228	248			
1938	945.00	904	992			
1939	107.00	102	112			
1940	95.00	89	100			
1941	1,344.00	1,253	1,411			
1942	511.00	472	537			
1943	3,058.00	2,800	3,188	23	6.15	4
1944	31.00	28	32	1	6.53	
1945	762.00	685	780	20	6.92	3
1946	193.00	172	196	7	7.31	1
1947	6,781.00	5,979	6,808	312	7.69	41
1948	3,062.00	2,674	3,045	170	8.08	21
1949	8,343.00	7,214	8,214	546	8.47	64
1950	248.00	212	241	19	8.86	2
1951	10,081.00	8,543	9,727	858	9.26	93
1952	29,220.00	24,513	27,910	2,771	9.65	287
1953	11,532.00	9,573	10,900	1,209	10.05	120
1954	63.00	52	59	7	10.45	1
1955	17,854.00	14,509	16,520	2,227	10.85	205
1956	46,058.00	37,026	42,157	6,204	11.25	551
1957	3,819.00	3,036	3,457	553	11.66	47
1958	2,256.00	1,774	2,020	349	12.06	29
1959	1,537.00	1,195	1,361	253	12.47	20
1960	2,315.00	1,779	2,026	405	12.88	31
1961	7,174.00	5,447	6,202	1,331	13.29	100
1962	5,289.00	3,967	4,517	1,036	13.71	76
1963	7,300.00	5,410	6,160	1,505	14.12	107
1964	130,505.00	95,521	108,758	28,272	14.54	1,944
1965	269,207.00	194,568	221,530	61,137	14.96	4,087
1966	652,577.00	465,652	530,180	155,026	15.38	10,080
1967	28,680.00	20,195	22,994	7,120	15.81	450
1968	58,260.00	40,476	46,085	15,088	16.24	929
1969	24,007.00	16,453	18,733	6,474	16.67	388

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-S0						
NET SALVAGE PERCENT.. -5						
1970	16,934.00	11,446	13,032	4,749	17.10	278
1971	22,591.00	15,053	17,139	6,582	17.54	375
1972	82,143.00	53,943	61,418	24,832	17.98	1,381
1973	232,553.00	150,476	171,328	72,853	18.42	3,955
1974	410,099.00	261,411	297,636	132,968	18.86	7,050
1975	35,275.00	22,138	25,206	11,833	19.31	613
1976	674,980.00	416,967	474,748	233,981	19.76	11,841
1977	71,654.00	43,559	49,595	25,642	20.21	1,269
1978	794,352.00	474,903	540,713	293,357	20.67	14,192
1979	34,675.00	20,381	23,205	13,204	21.13	625
1980	90,623.00	52,355	59,610	35,544	21.59	1,646
1981	357,050.00	202,605	230,681	144,222	22.06	6,538
1982	254,992.00	142,069	161,756	105,986	22.53	4,704
1983	29,883.00	16,336	18,600	12,777	23.01	555
1984	23,017.00	12,341	14,051	10,117	23.49	431
1985	50,285.00	26,432	30,095	22,704	23.97	947
1986	104,994.00	54,066	61,558	48,686	24.46	1,990
1987	70,133.00	35,362	40,262	33,378	24.95	1,338
1988	73,630.00	36,320	41,353	35,958	25.45	1,413
1989	92,458.00	44,597	50,777	46,304	25.95	1,784
1990	164,888.00	77,730	88,501	84,631	26.45	3,200
1991	128,634.00	59,203	67,407	67,659	26.96	2,510
1992	247,197.00	110,961	126,337	133,220	27.48	4,848
1993	153,692.00	67,241	76,559	84,818	28.00	3,029
1995	18,867.50	7,813	8,896	10,915	29.07	375
1996	88,757.78	35,705	40,653	52,543	29.61	1,775
1997	208,311.11	81,294	92,559	126,168	30.16	4,183
1998	372,706.61	140,965	160,499	230,843	30.71	7,517
1999	394,922.00	144,528	164,556	250,112	31.27	7,998
2000	181,017.49	63,990	72,857	117,211	31.84	3,681
2001	409,332.12	139,504	158,836	270,963	32.42	8,358
2002	196,636.83	64,521	73,462	133,007	33.00	4,031
2003	902,838.01	284,394	323,804	624,176	33.60	18,577
2004	4,167,289.98	1,258,001	1,432,328	2,943,326	34.20	86,062
2005	1,213,206.76	350,046	398,554	875,313	34.81	25,145
2006	1,174,466.05	322,689	367,406	865,783	35.44	24,430
2007	88,023.67	22,971	26,154	66,271	36.07	1,837
2008	240,284.56	59,343	67,566	184,733	36.71	5,032
2009	661,837.93	153,899	175,226	519,704	37.37	13,907
2010	716,899.25	156,194	177,839	574,905	38.04	15,113
2011	3,586,892.63	728,127	829,027	2,937,210	38.72	75,858
2012	8,807,856.10	1,653,124	1,882,205	7,366,044	39.42	186,861
2013	15,918,360.62	2,740,473	3,120,233	13,594,046	40.13	338,750

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-S0						
NET SALVAGE PERCENT.. -5						
2014	9,852,047.32	1,538,767	1,752,001	8,592,649	40.86	210,295
2015	2,147,511.53	300,171	341,767	1,913,120	41.61	45,977
2016	895,762.62	110,120	125,380	815,171	42.38	19,235
2017	539,011.32	56,947	64,838	501,124	43.17	11,608
2018	11,924,207.41	1,048,585	1,193,893	11,326,525	43.98	257,538
2019	2,733,856.88	190,777	217,214	2,653,336	44.81	59,213
2020	1,032,966.80	52,419	59,683	1,024,932	45.68	22,437
2021	35,763,860.80	1,118,676	1,273,696	36,278,358	46.57	779,007
2022	25,863,856.71	277,273	315,696	26,841,354	47.51	564,962
	135,703,280.39	16,535,788	18,819,682	123,668,762		2,895,955
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						42.7 2.13

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 390.10 STRUCTURES AND IMPROVMENTS - SOURCE CONTROL PLANT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-S0						
NET SALVAGE PERCENT.. -5						
2013	17,923,230.89	3,085,628	5,943,767	12,875,625	40.13	320,848
2014	667,063.96	104,187	200,693	499,724	40.86	12,230
2016	3,119,876.16	383,539	738,801	2,537,069	42.38	59,865
2017	216,141.91	22,836	43,989	182,960	43.17	4,238
2019	507,450.98	35,411	68,211	464,613	44.81	10,369
2022	599,800.97	6,430	12,386	617,405	47.51	12,995
	23,033,564.87	3,638,031	7,007,847	17,177,396		420,545
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					40.8	1.83

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 391.10 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2002	150,625.11	150,625	150,625			
2003	318,220.88	310,265	306,792	11,429	0.50	11,429
2004	900,507.14	832,969	823,645	76,862	1.50	51,241
2005	156,461.63	136,904	135,372	21,090	2.50	8,436
2006	86,514.39	71,374	70,575	15,939	3.50	4,554
2007	161,293.83	125,003	123,604	37,690	4.50	8,376
2008	262,606.27	190,390	188,259	74,347	5.50	13,518
2009	16,197.81	10,934	10,812	5,386	6.50	829
2010	610,092.81	381,308	377,040	233,053	7.50	31,074
2012	915,653.06	480,718	475,337	440,316	9.50	46,349
2013	1,290,726.41	613,095	606,233	684,493	10.50	65,190
2014	1,073,795.73	456,363	451,255	622,541	11.50	54,134
2015	526,655.66	197,496	195,285	331,371	12.50	26,510
2016	228,667.97	74,317	73,485	155,183	13.50	11,495
2017	614,673.90	169,035	167,143	447,531	14.50	30,864
2018	357,096.50	80,347	79,448	277,648	15.50	17,913
2019	221,915.36	38,835	38,400	183,515	16.50	11,122
2020	8,934,077.08	1,116,760	1,104,260	7,829,817	17.50	447,418
2021	917,853.23	68,839	68,068	849,785	18.50	45,934
2022	219,089.45	5,477	5,416	213,673	19.50	10,958
	17,962,724.22	5,511,054	5,451,054	12,511,670		897,344
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.9 5.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 391.20 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2016		0.14				
2018	5,918,084.50	5,326,276	5,132,655	785,430	0.50	785,430
2019	16,124,026.13	11,286,818	10,876,520	5,247,506	1.50	3,498,337
2020	15,425,944.20	7,712,972	7,432,591	7,993,353	2.50	3,197,341
2021	2,202,453.81	660,736	636,717	1,565,737	3.50	447,353
2022	4,588,618.07	458,862	442,181	4,146,437	4.50	921,430
	44,259,126.85	25,445,664	24,520,664	19,738,463		8,849,891
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						2.2 20.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 391.21 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS HORIZON

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2022	2,198,614.00	109,931	109,931	2,088,683	9.50	219,861
	2,198,614.00	109,931	109,931	2,088,683		219,861
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					9.5	10.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 391.22 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS TSA SECURITY  
DIRECTIVE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2022	24,886,345.00	2,488,634	2,488,634	22,397,711	4.50	4,977,269
	24,886,345.00	2,488,634	2,488,634	22,397,711		4,977,269
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.5 20.00



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 13-L2						
NET SALVAGE PERCENT.. +15						
1972	69,477.00	59,055	59,055			
1976	6,463.00	5,494	5,494			
1983	27,346.00	23,244	23,244			
1984	2,344.00	1,992	1,992			
1990	21,296.00	16,974	18,102			
1991	9,846.00	7,738	8,369			
1994	122,576.04	91,928	104,190			
1995	130,420.96	96,190	110,858			
1996	89,364.25	64,741	75,960			
1997	35,160.27	25,012	29,416	470	2.12	222
1998	117,858.83	82,302	96,792	3,388	2.32	1,460
1999	137,426.00	94,078	110,642	6,170	2.53	2,439
2000	22,937.00	15,372	18,078	1,418	2.75	516
2001	52,722.00	34,541	40,622	4,192	2.98	1,407
2002	76,191.06	48,771	57,358	7,404	3.21	2,307
2003	215,707.91	134,694	158,409	24,943	3.45	7,230
2004	340,901.61	207,293	243,790	45,976	3.70	12,426
2005	69,026.34	40,845	48,036	10,636	3.95	2,693
2006	50,063.92	28,806	33,878	8,676	4.20	2,066
2007	143,928.24	80,461	94,627	27,712	4.45	6,227
2008	370,999.30	201,338	236,786	78,563	4.70	16,716
2009	16,819.11	8,864	10,425	3,871	4.94	784
2010	1,505,950.82	770,006	905,576	374,482	5.18	72,294
2011	514,464.34	254,641	299,474	137,821	5.43	25,381
2012	2,905,836.56	1,386,982	1,631,179	838,782	5.70	147,155
2013	3,783,385.76	1,729,145	2,033,585	1,182,293	6.01	196,721
2014	1,458,675.13	631,381	742,544	497,330	6.38	77,951
2016	2,522.59	924	1,087	1,057	7.40	143
2018	26,401,558.61	7,163,944	8,425,257	14,016,068	8.85	1,583,736
2019	7,424,678.82	1,606,901	1,889,818	4,421,159	9.69	456,260
2020	4,979,112.48	787,833	926,542	3,305,704	10.58	312,448
2021	4,077,052.92	394,547	464,013	3,001,482	11.52	260,545
2022	2,309,447.91	75,498	88,790	1,874,241	12.50	149,939
	57,491,560.78	16,171,535	18,993,988	29,873,839		3,339,066

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.9 5.81

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 393.00 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1931	410.00	410	410			
1949	142.00	142	142			
1950	555.00	555	555			
1951	854.00	854	854			
1953	319.00	319	319			
1956	5,263.00	5,263	5,263			
1957	4,077.00	4,077	4,077			
1959	2,143.00	2,143	2,143			
1960	4,411.00	4,411	4,411			
1961	7,017.00	7,017	7,017			
1962	1,425.00	1,425	1,425			
1963	6,629.00	6,629	6,629			
1964	7,252.00	7,252	7,252			
1965	912.00	912	912			
1966	22,261.00	22,261	22,261			
1967	2,462.00	2,462	2,462			
1968	5,254.00	5,254	5,254			
1969	2,624.00	2,624	2,624			
1970	3,287.00	3,287	3,287			
1971	2,696.00	2,696	2,696			
1972	1,500.00	1,500	1,500			
1974	2,858.00	2,858	2,858			
1975	135.00	135	135			
1976	9,518.00	9,518	9,518			
1977	2,502.00	2,502	2,502			
1978	2,983.00	2,983	2,983			
1979	6,192.00	6,192	6,192			
1980	4,499.00	4,499	4,499			
1982	3,276.00	3,276	3,276			
1984	1,936.00	1,936	1,936			
1985	2,099.00	2,099	2,099			
1986	1,915.00	1,915	1,915			
	119,406.00	119,406	119,406			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 394.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2000	533,048.95	479,744	479,744	53,305	2.50	21,322
2001	494,438.80	425,217	425,217	69,222	3.50	19,778
2002	479,727.82	393,377	393,377	86,351	4.50	19,189
2003	546,830.13	426,528	426,528	120,302	5.50	21,873
2004	857,542.25	634,581	634,581	222,961	6.50	34,302
2005	731,631.02	512,142	512,142	219,489	7.50	29,265
2006	382,098.07	252,185	252,185	129,913	8.50	15,284
2007	212,322.56	131,640	131,640	80,683	9.50	8,493
2008	419,885.67	243,534	243,534	176,352	10.50	16,795
2009	236,537.99	127,731	127,731	108,807	11.50	9,461
2010	79,462.62	39,731	39,731	39,732	12.50	3,179
2011	286,576.95	131,825	131,825	154,752	13.50	11,463
2012	1,673,154.33	702,725	702,725	970,429	14.50	66,926
2013	944,985.54	359,095	359,095	585,891	15.50	37,799
2014	431,652.65	146,762	146,762	284,891	16.50	17,266
2015	360,232.86	108,070	108,070	252,163	17.50	14,409
2016	1,360,659.75	353,772	353,772	1,006,888	18.50	54,426
2017	1,829,211.61	402,427	402,427	1,426,785	19.50	73,168
2018	1,359,422.40	244,696	244,696	1,114,726	20.50	54,377
2019	1,205,137.21	168,719	168,719	1,036,418	21.50	48,205
2020	2,501,680.54	250,168	250,168	2,251,513	22.50	100,067
2021	1,157,247.24	69,435	69,435	1,087,812	23.50	46,290
2022	606,696.19	12,134	12,134	594,562	24.50	24,268
	18,690,183.15	6,616,238	6,616,238	12,073,945		747,605
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 16.2						4.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L1.5						
NET SALVAGE PERCENT.. +20						
1985	62,386.85	44,220	40,539	9,370	1.71	5,480
1989	14,660.73	9,915	9,090	2,639	2.32	1,138
1991	9,842.00	6,477	5,938	1,936	2.66	728
1994	12,590.00	7,910	7,252	2,820	3.22	876
1995	39,380.00	24,342	22,316	9,188	3.41	2,694
1996	6,962.00	4,225	3,873	1,697	3.62	469
1998	55,390.23	32,348	29,655	14,657	4.05	3,619
1999	17,877.00	10,221	9,370	4,932	4.28	1,152
2002	123,482.15	65,791	60,314	38,472	5.01	7,679
2003	62,542.82	32,489	29,785	20,249	5.26	3,850
2004	90,637.99	45,827	42,012	30,498	5.52	5,525
2005	501,185.16	246,451	225,936	175,012	5.78	30,279
2006	301,830.38	144,234	132,228	109,236	6.04	18,085
2007	11,235.18	5,207	4,774	4,214	6.31	668
2008	38,685.54	17,393	15,945	15,003	6.57	2,284
2010	126,667.32	53,099	48,679	52,655	7.14	7,375
2011	702,206.22	282,753	259,216	302,549	7.45	40,611
2012	307,231.72	118,142	108,308	137,477	7.79	17,648
2013	499,901.68	181,832	166,696	233,225	8.18	28,512
2014	63,570.81	21,665	19,862	30,995	8.61	3,600
2018	5,863,004.82	1,232,028	1,129,470	3,560,934	11.06	321,965
2019	1,761,607.76	296,894	272,180	1,137,106	11.84	96,039
2020	1,698,007.01	210,105	192,615	1,165,791	12.68	91,939
2021	2,222,191.84	169,473	155,365	1,622,388	13.57	119,557
2022	1,520,970.34	38,937	35,696	1,181,080	14.52	81,342
	16,114,047.55	3,301,978	3,027,114	9,864,124		893,114
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.0 5.54

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2013	49,718.14	31,488	31,488	18,230	5.50	3,315
	49,718.14	31,488	31,488	18,230		3,315
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.5 6.67

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.10 COMMUNICATION EQUIPMENT - MOBILE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2018	55,474.85	24,964	24,964	30,511	5.50	5,547
2019	4,161,405.21	1,456,492	1,456,492	2,704,913	6.50	416,140
2020	40,009.64	10,002	10,002	30,008	7.50	4,001
2021	29,219.34	4,383	4,383	24,836	8.50	2,922
	4,286,109.04	1,495,841	1,495,841	2,790,268		428,610
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.5 10.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.20 COMMUNICATION EQUIPMENT - NON-MOBILE AND TELEMETER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2013	9,957.65	6,306	6,306	3,652	5.50	664
	9,957.65	6,306	6,306	3,652		664
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.5 6.67

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.30 COMMUNICATION EQUIPMENT - TELEMETER OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2007	53,241.79	53,242	53,242			
2008	153,747.85	148,623	146,269	7,479	0.50	7,479
2009	47,988.32	43,189	42,505	5,483	1.50	3,655
2010	188,278.98	156,899	154,414	33,865	2.50	13,546
2011	562,402.09	431,177	424,347	138,055	3.50	39,444
2012	264,234.41	184,964	182,034	82,200	4.50	18,267
2013	135,620.33	85,892	84,531	51,089	5.50	9,289
2014	386,407.83	218,966	215,497	170,911	6.50	26,294
2015	2,309.81	1,155	1,137	1,173	7.50	156
2018	94,316.84	28,295	27,847	66,470	10.50	6,330
2019	436,457.88	101,839	100,226	336,232	11.50	29,238
2020	4,370,817.24	728,484	716,944	3,653,873	12.50	292,310
2021	2,379,868.92	237,987	234,217	2,145,652	13.50	158,937
2022	2,837,201.21	94,564	93,066	2,744,135	14.50	189,251
	11,912,893.50	2,515,276	2,476,276	9,436,618		794,196
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.9 6.67



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.40 COMMUNICATION EQUIPMENT - TELEMETER MICROWAVE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2007	61,119.78	61,120	61,120			
2010	71,274.98	59,396	58,171	13,104	2.50	5,242
2011	44,683.87	34,258	33,551	11,133	3.50	3,181
2013	177,219.97	112,239	109,923	67,297	5.50	12,236
2014	371,736.68	210,652	206,306	165,431	6.50	25,451
2015	76,277.45	38,139	37,352	38,925	7.50	5,190
2017	1,206,002.15	442,205	433,082	772,920	9.50	81,360
2019	2,763,921.53	644,906	631,602	2,132,320	11.50	185,419
2020	861,088.57	143,518	140,557	720,532	12.50	57,643
2022	336,271.84	11,208	10,977	325,295	14.50	22,434
	5,969,596.82	1,757,641	1,722,641	4,246,956		398,156
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.7 6.67

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.50 COMMUNICATION EQUIPMENT - TELEPHONE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2014	246,231.06	209,296	209,296	36,935	1.50	24,623
2015	94,440.13	70,830	70,830	23,610	2.50	9,444
	340,671.19	280,126	280,126	60,545		34,067
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 1.8						10.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 398.10 MISCELLANEOUS EQUIPMENT - PRINT SHOP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	4,359.31	3,633	3,633	726	2.50	290
	4,359.31	3,633	3,633	726		290
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						2.5 6.65

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 398.20 MISCELLANEOUS EQUIPMENT - KITCHEN

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	12,812.44	10,677	10,677	2,135	2.50	854
2020	16,052.40	2,675	2,675	13,377	12.50	1,070
	28,864.84	13,352	13,352	15,513		1,924
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						8.1 6.67

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 398.30 MISCELLANEOUS EQUIPMENT - JANITORIAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
1947	889.00	889	889			
1958	3,088.00	3,088	3,088			
1960	20.00	20	20			
1962	1,248.00	1,248	1,248			
1963	801.00	801	801			
1964	1,355.00	1,355	1,355			
1965	1,157.00	1,157	1,157			
1966	1,108.00	1,108	1,108			
1967	1,659.00	1,659	1,659			
1968	1,108.00	1,108	1,108			
1969	1,653.00	1,653	1,653			
1970	255.00	255	255			
1976	266.00	266	266			
1992	266.00	266	266			
	14,873.00	14,873	14,873			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 398.40 MISCELLANEOUS EQUIPMENT - LEASED BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
1969	605.00	605	605			
1985	4,788.00	4,788	4,788			
1986	4,455.00	4,455	4,455			
1987	272.00	272	272			
	10,120.00	10,120	10,120			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 398.50 MISCELLANEOUS EQUIPMENT - OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
1958	299.00	299	299			
1961	486.00	486	486			
1962	5,361.00	5,361	5,361			
1964	972.00	972	972			
1965	410.00	410	410			
1966	864.00	864	864			
1971	267.00	267	267			
1976	1,127.00	1,127	1,127			
1977	12,091.00	12,091	12,091			
1978	741.00	741	741			
1985	262.00	262	262			
1986	5,000.00	5,000	5,000			
1987	1,831.00	1,831	1,831			
1988	814.00	814	814			
1989	7,330.00	7,330	7,330			
1990	765.00	765	765			
1991	5,587.00	5,587	5,587			
1992	8,257.00	8,257	8,257			
1993	14,275.00	14,275	14,275			
	66,739.00	66,739	66,739			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00



## CERTIFICATE OF SERVICE

I hereby certify that I have this day served by electronic mail NW NATURAL'S DEPRECIATION STUDY upon all parties of record for the Company's last general rate case, UG 435.

### UG 435

OREGON CITIZENS' UTILITY  
BOARD  
dockets@oregoncub.org

TOMMY A. BROOKS  
CABLE HUSTON LLP  
tbrooks@cablehuston.com

MATTHEW MULDOON  
PUBLIC UTILITY  
COMMISSION  
matt.muldoon@puc.oregon.gov  
JAMES BIRKELUND  
SMALL BUSINESS UTILITY  
ADVOCATES  
james@utilityadvocates.org

DANNY KERMODE  
SMALL BUSINESS UTILITY  
ADVOCATES  
5553dkcpa@gmx.us

ADAM HINZ  
EARTHJUSTICE  
ahinz@earthjustice.org

CARRA SAHLER  
LEWIS & CLARK LAW  
SCHOOL  
sahler@lclark.edu  
JOCELYN PEASE  
MCDOWELL RACKNER &  
GIBSON PC  
jocelyn@mrg-law.com

MICHAEL GOETZ  
OREGON CITIZENS' UTILITY  
BOARD  
mike@oregoncub.org

CHAD M. STOKES  
CABLE HUSTON LLP  
cstokes@cablehuston.com

STEPHANIE ANDRUS  
PUBLIC UTILITY COMMISSION  
stephanie.andrus@doj.state.or.us

DIANE HENKELS  
SMALL BUSINESS UTILITY  
ADVOCATES  
diane@utilityadvocates.org

JAIMINI PAREKH  
EARTHJUSTICE  
jparekh@earthjustice.org

KRISTEN BOYLES  
EARTHJUSTICE  
kboyles@earthjustice.org

MCDOWELL RACKNER &  
GIBSON PC  
dockets@mrg-law.com

ERIC NELSEN  
NW NATURAL  
eric.nelsen@nwnatural.com



NW NATURAL  
efiling@nwnatural.com

DATED January 2, 2024, Portland, Oregon.

/s/ Fay Funk  
Fay Funk  
Rates & Regulatory Affairs, NW Natural  
250 SW Taylor Street  
Portland, Oregon 97204  
(971) 979-6871  
fay.funk@nwnatural.com