AQUA EXHIBIT 8.0

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

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In the Matter of the Application of Aqua Ohio, Inc. to Increase Its Rates and Charges for Its Waterworks Service.

Case No. 16-0907-WW-AIR

DIRECT TESTIMONY OF JOHN J. SPANOS ON BEHALF OF AQUA OHIO, INC.

- ____ Management policies, practice and organization
- ____ Operating income
- Rate base
- Allocations
- Rate of return
- ____ Rates and tariffs
- X Other

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1 2		Direct Testimony of John J. Spanos
3	I.	INTRODUCTION AND QUALIFICATIONS
4	Q1.	Please state your name and address.
5	A.	My name is John J. Spanos. My business address is 207 Senate Avenue, Camp Hill,
6		Pennsylvania.
7	Q2.	Are you associated with any firm?
8	A.	Yes. I am associated with the firm of Gannett Fleming Valuation and Rate
9		Consultants, LLC ("Gannett Fleming").
10	Q3.	How long have you been associated with Gannett Fleming?
11	A.	I have been associated with the firm since college graduation in June, 1986.
12	Q4.	What is your position with the firm?
13	A.	I am a Senior Vice President.
14	Q5.	On whose behalf are you testifying in this case?
15	A.	I am testifying on behalf of Aqua Ohio, Inc. ("Aqua" or the "Company").
16	Q6.	Please state your qualifications.
17	A.	I have 30 years of depreciation experience which includes giving expert testimony in
18		over 200 cases before 40 regulatory commissions, including the Public Utilities
19		Commission of Ohio (PUCO). Please refer to Appendix A for my qualifications.
20	II.	PURPOSE AND SCOPE
21	Q7.	What is the purpose of your testimony in this proceeding?
22	А.	I sponsor the depreciation study performed for Aqua attached hereto as Schedule
23		JJS-1 ("Depreciation Study"). The Depreciation Study sets forth the calculated
24		annual depreciation accrual rates by account as of December 31, 2015. The
25		proposed rates appropriately reflect the rates at which Aqua's assets should be

 2 methods and procedures in Ohio for determining depreciation rates. 3 Q8. What are some of the major factors that caused the change in deprerates? 	eciation
3 Q8. What are some of the major factors that caused the change in depre 4 rates?	eciation
5 A. The major components that caused rates to change by function are as fol	llows:
• All Plant: The asset base has changed since the last study primarily	due to a
7 large acquisition in 2012 which had very different life characteristics	s and net
8 salvage percents;	
• Structures and Improvements: The utilization of longer service lives	s for some
10 accounts, particularly Account 304.30, Structures and Improvements	s - Water
11 Treatment;	
12 • Distribution Plant: the utilization of longer service lives for some ac	counts, with
13 the largest change in Account 320.00, Water Treatment Equipment;	
• General Plant: the utilization of more appropriate amortization rates	s for each
15 account and subaccount.	
16 Q9. Please define the concept of depreciation.	
17 A. Depreciation refers to the loss in service value not restored by current m	aintenance,
18 incurred in connection with the consumption or prospective retirement o	of utility
19 plant in the course of service from causes which can be reasonably antic	cipated or
20 contemplated, against which the Company is not protected by insurance.	. Among the
21 causes to be given consideration are wear and tear, decay, action of the e	elements,
22 inadequacy, obsolescence, changes in the art, changes in demand and the	e
23 requirements of public authorities.	

1	Q10.	Did you prepare the depreciation study filed by Aqua in this proceeding?
2	A.	Yes. I prepared the depreciation study submitted by Aqua with its filing in this
3		proceeding. My report is entitled: "2015 Depreciation Study - Calculated Annual
4		Depreciation Accruals Related to Water Plant as of December 31, 2015." This
5		report sets forth the results of my depreciation study for Aqua.
6 7	Q11.	In preparing the depreciation study, did you follow generally accepted practices in the field of depreciation valuation?
8	A.	Yes.
9 10	Q12.	Are the methods and procedures of this depreciation study consistent with past practices?
11	A.	The methods and procedures of this study are the same as those utilized in the last
12		study for this company as well as others before PUCO. Depreciation rates are
13		determined based on the average service life procedure and the whole life method.
14	III.	OUTLINE OF REPORT
15	Q13.	Please describe the contents of your report.
16	A.	My report is presented in nine parts. Part I, Introduction, presents the scope and
17		basis for the depreciation study. Part II, Estimation of Survivor Curves, includes
18		descriptions of the methodology of estimating survivor curves. Parts III and IV set
19		forth the analysis for determining life and net salvage estimation. Part V,
20		Calculation of Annual and Accrued Depreciation includes the concepts of
21		depreciation and amortization using the whole life. Part VI, Results of Study,
22		presents a description of the results and a summary of the depreciation calculations.
23		Parts VII, VIII and IX include graphs and tables that relate to the service life and net
24		salvage analyses, and the detailed depreciation calculations.
25		The table on pages VI-4 through VI-8 presents the estimated survivor curve,
26		the net salvage percent, the original cost as of December 31, 2015, the calculated 3

1		annual depreciation accrual and rate, and accrued depreciation for each account or
2		subaccount. The section beginning on page VII-2 presents the results of the
3		retirement rate analyses prepared as the historical bases for the service life estimates.
4		The section beginning on page VIII-2 presents the results of the salvage analysis.
5		The section beginning on page IX-2 presents the depreciation calculations related to
6		surviving original cost as of December 31, 2015.
7	Q14.	Please explain how you performed your depreciation study.
8	A.	I used the straight-line whole life method of depreciation, with the average service
9		life procedure. The annual depreciation is based on a method of depreciation
10		accounting that seeks to distribute the unrecovered cost of fixed capital assets over
11		the estimated remaining useful life of each unit, or group of assets, in a systematic
12		and reasonable manner.
13		For General Plant Accounts 340.1, 340.2, 340.3, 342, 343, 346, 347 and 348
14		in plant; I used the straight-line whole life method of amortization. The account
15		numbers identified throughout my testimony represent those in effect as of
16		December 31, 2015. The annual amortization is based on amortization accounting
17		that distributes the cost of fixed capital assets over the amortization period
18		authorized for each account and vintage.
19	IV.	METHODS AND PROCEDURES USED IN THE STUDY
20	Q15.	How did you determine the recommended annual depreciation accrual rates?
21	A.	I did this in two phases. In the first phase, I estimated the service life and net salvage
22		characteristics for each depreciable group, that is, each plant account or subaccount
23		identified as having similar characteristics. In the second phase, I calculated the

1		annual depreciation accrual rates and accrued depreciation based on the service life
2		and net salvage estimates determined in the first phase.
3 4	Q16.	Please describe the first phase of the depreciation study, in which you estimated the service life and net salvage characteristics for each depreciable group.
5	A.	The service life and net salvage study consisted of compiling historical data from
6		records related to Aqua's plant; analyzing these data to obtain historical trends of
7		survivor characteristics; obtaining supplementary information from management and
8		operating personnel concerning practices and plans as they relate to plant operations;
9		and interpreting the above data and the estimates used by other water utilities to form
10		judgments of average service life and net salvage characteristics.
11 12	Q17.	What historical data did you analyze for the purpose of estimating service life characteristics?
13	A.	Generally speaking, I analyzed the Company's accounting entries that record plant
14		transactions during the period 1888 through 2015 for water. The transactions
15		included additions, retirements, transfers, sales and the related balances.
16	Q18.	What method did you use to analyze these service life data?
17	A.	I used the retirement rate method. This is the most appropriate method when
18		retirement data covering a long period of time is available because this method
19		determines the average rates of retirement actually experienced by the Company
20		during the period of time covered by the depreciation study.
21 22	Q19.	Please describe how you used the retirement rate method to analyze Aqua's service life data.
23	A.	I applied the retirement rate analysis to each different group of property in the study.
24		For each property group, I used the retirement rate data to form a life table which,
25		when plotted, shows an original survivor curve for that property group. Each
26		original survivor curve represents the average survivor pattern experienced by the

several vintage groups during the experience band studied. The survivor patterns do
 not necessarily describe the life characteristics of the property group; therefore,
 interpretation of the original survivor curves is required in order to use them as valid
 considerations in estimating service life. The Iowa type survivor curves were used
 to perform these interpretations.

6 **Q20.** What is an "Iowa-type Survivor Curve" and how did you use such curves to 7 estimate the service life characteristics for each property group?

A. Iowa type curves are a widely-used group of survivor curves that contain the range
of survivor characteristics usually experienced by utilities and other industrial
companies. The Iowa curves were developed at the Iowa State College Engineering
Experiment Station through an extensive process of observing and classifying the
ages at which various types of property used by utilities and other industrial
companies had been retired.

14Iowa type curves are used to smooth and extrapolate original survivor curves15determined by the retirement rate method. The Iowa curves and truncated Iowa16curves were used in this study to describe the forecasted rates of retirement based on17the observed rates of retirement and the outlook for future retirements.

The estimated survivor curve designations for each depreciable property group indicate the average service life, the family within the Iowa system to which the property group belongs, and the relative height of the mode. For example, the Iowa 55-R2 indicates an average service life of fifty-five years; a right-moded, or R, type curve (the mode occurs after average life for right-moded curves); and a moderate height, 2, for the mode (possible modes for R type curves range from 1 to 5).

1 2	Q21.	Did you physically observe Aqua's plant and equipment as part of your depreciation study?
3	A.	Yes. I made the most recent field review of Aqua's property as part of this study
4		during December 2015 to observe representative portions of plant. Field reviews are
5		conducted to become familiar with company operations and to obtain an
6		understanding of the function of the plant and information with respect to the
7		reasons for past retirements and the expected future causes of retirements. This
8		knowledge, as well as information from other discussions with management, was
9		incorporated in the interpretation and extrapolation of the statistical analyses.
10	Q22.	Would you explain the concept of "net salvage"?
11	A.	Net salvage is a component of the service value of capital assets that is reflected in
12		depreciation rates. The service value of an asset is its original cost less its net
13		salvage. Net salvage is the salvage value received for the asset upon retirement less
14		the cost to retire the asset. When the cost to retire exceeds the salvage value, the
15		result is negative net salvage.
16		Inasmuch as depreciation expense is the loss in service value of an asset
17		during a defined period, e.g. one year, it must include a ratable portion of both the
18		original cost and the net salvage. That is, the net salvage related to an asset should
19		be incorporated in the cost of service during the same period as its original cost so
20		that customers receiving service from the asset pay rates that include a portion of
21		both elements of the asset's service value, the original cost and the net salvage value.
22		For example, the full recovery of the service value of a \$2,000 pump includes
23		not only the \$2,000 of original cost, but also, on average, \$300 to remove the pump
24		at the end of its life and \$100 in salvage value. In this example, the net salvage

1		component is negative \$200 (\$100 - \$300), and the net salvage percent is negative
2		10% ((\$100 - \$300)/\$2,000).
3	Q23.	Please describe how you estimated net salvage percentages.
4	A.	I estimated the net salvage percentages by reviewing the Company's account
5		specific historical salvage and cost of removal data for the period 1980 through 2015
6		as a percentage of the associated retired plant as well as considering industry
7		experience in terms of net salvage estimates for other water companies.
8 9	Q24.	Please describe the second phase of the process that you used in the depreciation study in which you calculated annual depreciation accrual rates.
10	A.	After I estimated the service life and net salvage characteristics for each depreciable
11		property group, I calculated the annual depreciation accrual rates for each group,
12		using the straight line whole life method, and the average service life procedure.
13	Q25.	Please describe the straight line whole life method of depreciation.
14	A.	The straight line whole life method of depreciation allocates the original cost of the
15		property, less future net salvage, in equal amounts to each year of service life.
16	Q26.	Please describe amortization accounting.
17	A.	In amortization accounting, units of property are capitalized in the same manner as
18		they are in depreciation accounting. Amortization accounting is used for accounts
19		with a large number of units, but small asset values. Depreciation accounting is
20		difficult for these assets because periodic inventories are required to properly reflect
21		plant in service. Consequently, retirements are recorded when a vintage is fully
22		amortized rather than as the units are removed from service. That is, there is no
23		dispersion of retirements. All units are retired when the age of the vintage reaches
24		the amortization period. Each plant account or group of assets is assigned a fixed
25		period which represents an anticipated life during which the asset will render full

1		benefit. For example, in amortization accounting, assets that have a 20-year
2		amortization period will be fully recovered after 20 years of service and taken off the
3		Company's books, but not necessarily removed from service. In contrast, assets that
4		are taken out of service before 20 years remain on the books until the amortization
5		period for that vintage has expired.
6	Q27.	For which plant accounts is amortization accounting being utilized?
7	A.	Amortization accounting is utilized for certain General Plant or General Plant related
8		accounts. These accounts are Accounts 340.1, 340.2, 340.3, 342, 343, 344, 346, 347
9		and 348 in plant. These accounts represent slightly more than three percent of the
10		Company's depreciable plant.
11	V.	EXAMPLE OF PRESENTATION
12 13	Q28.	Please use an example to illustrate how the annual depreciation accrual rate for a particular group of property is presented in your depreciation study.
14	A.	I will use Account 331, Transmission and Distribution Mains, as an example because
15		it is the largest depreciable account and represents approximately 33 percent of
16		depreciable plant.
17		The retirement rate method was used to analyze the survivor characteristics
18		of this property group. Aged plant accounting data was compiled from 1888 through
19		2015 and analyzed in periods that best represent the overall service life of this
20		property. The life tables for the 1888-2015 and 1991-2015 experience bands are
21		presented on pages VII-96 through VII-103 of the report. The life tables display the
22		retirement and surviving ratios of the aged plant data exposed to retirement by age
23		interval. For example, page VII-96 shows \$13,359 retired at age 0.5 with
24		\$206,368,946 exposed to retirement. Consequently, the retirement ratio is 0.0001

1		and the surviving ratio is 0.9999. These life tables, or original survivor curves, are
2		plotted along with the estimated smooth survivor curve, the 90-R3 on page VII-95.
3		The net salvage percent is presented on pages VIII-30 and VIII-31. The
4		percentage is based on the result of annual gross salvage minus the cost to remove
5		plant assets as compared to the original cost of plant retired during the period 1980
6		through 2015. The 36-year period experienced \$2,032,345 (\$352,072 - \$2,384,417)
7		in net salvage for \$4,744,374 plant retired. The result is negative net salvage of 43
8		percent (\$2,032,345/\$4,744,374). While the result was negative 43 percent, recent
9		trends have shown indications of negative 45 percent. Therefore, based on industry
10		ranges, historical indications and Company expectations, I determined that a
11		negative 45 percent was the most appropriate estimate for this account.
12		My calculation of the annual depreciation related to the original cost at
13		December 31, 2015, of water plant is presented on pages IX-29 through IX-31. The
14		calculation is based on the 90-R3 survivor curve, 45 percent negative net salvage and
15		the attained age. The tabulation sets forth the installation year, the original cost,
16		calculated accrued depreciation, average life, life expectancy and annual accrual
17		amount and life. These totals are brought forward to the table on page VI-4.
18 19	Q29.	Have you calculated an actual vs. theoretical reserve variance as part of the depreciation study?
20	A.	Yes. As set forth on pages VI-9 through VI-11 of the Depreciation Study, there is an
21		excess reserve variance of \$5,163,317 based on the parameters proposed as a result
22		of the study. The most commonly utilized method for recovering these types of
23		excess and deficient variances is over the remaining life of each asset class.
24		However, the remaining life method, which is widely utilized in almost all
25		jurisdictions, is not the traditional method in Ohio. If remaining life recovery is not

1		utilized, then my recommendation would be to amortize the portion of the variance
2		above a threshold amount of 10% of the cumulative book depreciation over 10 years.
3		I would not recommend recovery in the amortization below a 10% threshold since
4		the reserve variance is based on a theoretical calculated amount which is subject to
5		significant volatility as depreciation lives and net salvage rates change when
6		applying normal depreciation practices. The reserve variance for Aqua Ohio, Inc. is
7		less than 10 percent, therefore, no amortization is recommended.
8	VI.	CONCLUSION
9 10	Q30.	Was the depreciation study filed by Aqua Ohio, Inc. in this proceeding prepared by you or under your direction and control?
11	A.	Yes.
12 13	Q31.	Is the information contained in the depreciation study accurate to the best of your knowledge and belief?
14	A.	Yes.
15	Q32.	Does this conclude your direct testimony?
16	A.	Yes, it does.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the Direct Testimony of John J. Spanos was served by

electronic mail to the following persons on this 14th of June, 2016:

Steven Beeler Robert Eubanks Public Utilities Section Office of Ohio Attorney General 30 East Broad Street, 16th Floor Columbus, Ohio 43215 steven.beeler@ohioattorneygeneral.gov robert.eubanks@ohioattorneygeneral.gov Kevin F. Moore Ajay Kumar Office of the Ohio Consumers' Counsel 10 West Broad Street, Suite 1800 Columbus, Ohio 43215-3485 kevin.moore@occ.ohio.gov ajay.kumar@occ.ohio.gov

/s/ Rebekah J. Glover One of the Attorneys for Aqua Ohio, Inc.

Schedule JJS-1

AQUA OHIO, INC.

BOARDMAN, OHIO

2015 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2015

Prepared by:



Excellence Delivered As Promised

AQUA OHIO, INC.

Boardman, Ohio

2015 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2015

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



Excellence Delivered As Promised

May 13, 2016

Aqua Ohio, Inc. 6650 South Avenue Boardman, OH 44512

Attention Mr. Robert A. Kopas Vice President and Treasurer

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the water plant of Aqua Ohio, Inc. The study results include annual depreciation rates as of December 31, 2015. The attached report presents a description of the methods used in the estimation of depreciation, summaries of annual and accrued depreciation, the statistical support for the life and net salvage estimates and the detailed tabulations of depreciation by year installed for each account.

Respectfully submitted,

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

The J. Aparos

JOHN J. SPANOS Senior Vice President

JJS:krm

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AQUA OHIO, INC.

DEPRECIATION STUDY

EXECUTIVE SUMMARY

Pursuant to Aqua Ohio, Inc.'s ("Aqua" or "Company") request, Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a depreciation study related to the water plant as of December 31, 2015. 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 whole 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.

Aqua's accounting policy has not changed since the last depreciation study was prepared. However, there have been changes in depreciation rates caused by the proposed service life and net salvage estimates, as well as acquired plant, in this depreciation study as compared to those proposed in the previous depreciation study as of December 31, 2008.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to water plant in service as of December 31, 2015 as summarized in Table 1 of the study. Supporting analysis and calculations are provided within the study. The study results set forth an annual depreciation expense of \$11.3 million when applied to depreciable plant balances as of December 31, 2015. The results are summarized at the functional level as follows:

FUNCTION	ORIGINAL COST AS OF DECEMBER 31, 2015	PROPOSED RATE	PROPOSED EXPENSE
Depreciable Plant			
Structures and Improvements	\$ 34,008,682.59	2.11	\$ 717,157
Distribution Plant	362,144,755.62	2.53	9,150,000
General Plant	19,869,104.40	7.20	1,430,302
Total Depreciable Plant	\$416,022,542.61	2.72	\$11,297,459

SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS

PART I. INTRODUCTION

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AQUA OHIO, INC. DEPRECIATION STUDY

PART I. INTRODUCTION

SCOPE

This report presents the results of the depreciation study prepared for Aqua Ohio, Inc. (the Company) as applied to water plant in service as of December 31, 2015. The study results include annual depreciation rates and reserve variance amounts. The rates and amounts are based on the straight line whole life method of depreciation with a variance between the book depreciation reserve and the calculated accrued depreciation (theoretical reserve). The report also describes the concepts, methods and basic judgments which underlie recommended annual depreciation accrual rates and amounts related to current utility plant in service.

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 2015; a review of Company practice and outlook as they relate to plant operation and retirement; and consideration of current practice in the water industry, including knowledge of service life and net salvage estimates used for other water properties.

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 the methods used in the service life and net salvage studies. Part III, Service Life Considerations, presents the factors and judgment utilized in the average service life analysis. Part IV, Net Salvage Considerations, presents the judgment utilized for 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 a summary by depreciable group of annual depreciation accrual rates and amounts. 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 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 all accounts, the annual depreciation was calculated by the straight line whole life method using the average service life procedure. The calculated annual and accrued depreciation were based on attained ages of plant in service and the estimated service life and net salvage characteristics of each depreciable group. Amortization accounting or vintage pooling is used for most general plant accounts

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 water utility industry, and comparisons of the service life and net salvage estimates from our studies of other water utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for utility 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 estimates of future experience yielded estimated survivor curves from which the average service lives were derived.

The Company's service life estimates used in the depreciation calculation incorporated historical data compiled through 2015 from the property records of the Company. Such data included plant additions, retirements, transfers and other activity. Generally, retirement data for the years 1931 through 2015 were used in the actuarial

life table computations which were the primary statistical support of the service life estimates.

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 retirement was obtained through discussions with operating and management personnel conducted during the course of the service life study. Information regarding plans for the future was incorporated in the interpretation and extrapolation of the statistical analyses.

The estimates of net salvage were based in part on historical data compiled for the years 1980 through 2015. Gross salvage and cost of removal as recorded to the depreciation reserve account and related to experienced retirements were used. Percentages of the cost of plant retired were calculated for each component of net salvage, on both annual and five-year moving average bases. The estimates of net salvage are expressed as percentages of the cost of plant retired.

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 lowa 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.

lowa 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 lowa type curves. There are four families in the lowa 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 lowa curves were developed at the lowa 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,



Figure 1. A Typical Survivor Curve and Derived Curves



Figure 2. Left Modal or "L" lowa Type Survivor Curves











Figure 5. Origin Modal or "O" lowa Type Survivor Curves

which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125. These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."¹ 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,"² "Engineering Valuation and Depreciation,"³ and "Depreciation Systems."⁴

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 <u>experience band</u>, and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the <u>placement band</u>. An example of the calculations used in the development of a life table follows. The example includes

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

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

³Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

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

schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

Schedules of Annual Transactions in Plant Records

A hypothetical property group is used to illustrate the retirement rate method. This property group is observed for the experience band 2006-2015 during which there were placements (or installations) during the years 2001-2015. 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, 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 2001 were retired in 2006. 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 2006 retirements of 2001 installations and ending with the 2015 retirements of the 2010 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.
Experience Band 2006-2015

Placement Band 2001-2015

	Age	Interval	(13)	13%-14%	121/2-131/2	111/2-121/2	101/2-111/2	9½-10½	814-915	7%-8%	6½-7%	512-612	412-512	31/2-41/2	21/2-31/2	11/2-21/2	12-112	0-12	
	Total During	Age Interval	(12)	26	44	64	83	63	105	113	124	131	143	146	150	151	153	80	1,606
		2015	(11)	26	19	18	17	20	20	20	19	19	50	23	25	25	24	13	308
		2014	(10)	25	22	22	16	19	16	18	19	19	19	22	22	23	<u>*</u>		273
		2013	(6)	24	21	21	15	17	15	16	17	17	17	20	20	, -			231
Dollars		2012	(8)	23	20	19	14	16	4	15	16	16	16	18	0				196
usands of	g Year	2011	(-)	16	18	17	13	14	13	14	15	15	4	ω					157
nents. Tho	During	2010	(9)	14	16	16	, ,	13	12	13	1 3	13	7						128
Retirer		2009	(2)	13	15	14 44		12	7	12	12	9							106
		2008	(4)	12	ر ت	13	10	;-	10		9								86
		2007	(3)	÷	12	12	თ	6	თ	5									68
		2006	(2)	10	,	÷	со -	0	4										53
	Year	Placed	(F)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	1102	2012	2013	2014	5015	Total

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2006-2015 SUMMARIZED BY AGE INTERVAL

Experience Band 2006-2015

Placement Band 2001-2015

id Sales, Thousands of Dollars ing Year	Z011 2012 2013 2014 2015 Age Interval Interval (7) (8) (9) (10) (11) (12) (13)	- 60 ^a 13½-14½ 12½-13½ 11½-12½ 11½-12½	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	<u>- 60 (30) 22 (102) (50)</u>
	<u>2014</u> (10)	111	1 1 1		52
of Dollars	<u>2013</u> (9)	ر بر روز ا	, o ^a ((30)
ousands o	<u>2012</u> (8)	60ª	1 7 1		60
Sales, Tho Year	(7)	ŧ \$ t I	11		1
fers and { During	2010 (6)		11		ı
ns, Trans	<u>2009</u> (5)		3 1	· · · ·	, j of Year sar
Acquisitio	<u>2008</u> (4)		ł I I	ž	at End of Ye
	<u>2007</u> (3)				Exposures of Use
	<u>2006</u> (2)		1 1		r Affecting r Affecting h Continue
	Year <u>Placed</u> (1)	2001 2002 2003 2004	2005 2006 2006	2008 2009 2010 2011 2013 2013 2015	Total = ^a Transfe ^b Transfe ^c Sale with

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 2006 through 2015 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 2011 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age 1/2	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 11/2	= \$742,000 - \$18,000	= \$724,000
Exposures at age 21/2	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 31/2	= \$685,000 - \$22,000	= \$663,000

Experience Band 2006-2015

Placement Band 2001-2015

	Interval	(13)	131/2-141/5	121/2-131/2	111/2-121/2	101/2-111/2	912-1012	81/2-91/2	71/2-81/2	612-713	51%-61%	4%-5%	3%-4%	21%-31%	114-214	11 112	12-1/2	0-72		
	Age Interval	(12)	167	323	531	823	1,097	1,503	1,952	2,463	3.057	3.789	4.332	4.955	5.719	6 570		7,490	44,780	
	2015	(11)	167	131	162	226	261	316	356	412	482	609	663	799	926	1 069		1,220ª	7,799	
	2014	(10)	192	153	184	242	280	332	374	431	501	628	685	821	949	1 ORO ^a	000'1		6,852	
	2013	(6)	216	174	205	262	297	347	390	448	530	623	724	841	960^{a})))			6,017	
Dollars o of the Ye	2012	(8)	239	194	224	276	307	361	405	464	546	639	742	850^{a}					5,247	
sands of I Beainnin	2011	(2)	195	212	241	289	321	374	419	479	561	653	750 ^a						4,494	
iures, Thou ivors at the	2010	(9)	209	228	257	300	334	386	432	492	574	660 ^a							3,872	
Expos nnual Surv	2009	(2)	222	243	271	311	346	397	444	504	580^{a}								3,318	
A	2008	(4)	234	256	284	321	357	407	455	510 ^a									2,824	a
	2007	(3)	245	268	296	330	367	416	460 ^a										2,382	ining the yea
	2006	(2)	255	279	307	338	376	420 ^a											1,975	Additions du
Year -	Placed	Ē	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015		Total	¢,

For the entire experience band 2006-2015, 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 age interval of 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 41/2	Ξ	88.15			
Exposures at age 41/2		3,789,000			
Retirements from age 41/2 to 51/2	Ξ	143,000			
Retirement Ratio	=	143,000 ÷	3,789,000	=	0.0377
Survivor Ratio	==	1.000 -	0.0377	=	0.9623
Percent surviving at age 51/2	=	(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 2006-2015

Placement Band 2001-2015

(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 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5 9.5 10.5 11.5 12.5 13.5	7,490 6,579 5,719 4,955 4,332 3,789 3,057 2,463 1,952 1,503 1,097 823 531 323 167	80 153 151 150 146 143 131 124 113 105 93 83 64 44 26	0.0107 0.0233 0.0264 0.0303 0.0337 0.0377 0.0429 0.0503 0.0579 0.0699 0.0848 0.1009 0.1205 0.1362 0.1357	0.9893 0.9767 0.9697 0.9663 0.9623 0.9571 0.9497 0.9421 0.9301 0.9152 0.8991 0.8795 0.8638 0.8443	100.00 98.93 96.62 94.07 91.22 88.15 84.83 81.19 77.11 72.65 67.57 61.84 55.60 48.90 42.24
14.5 Total	44 780	1 606			35.66
iotai	<u>, / 00</u>	1,000			

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 lowa 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 lowa 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 lowa 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 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 lowa 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



FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN SO 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



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



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, a field trip was conducted for the study. 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.

December 3, 2015

Struthers Water Treatment Plant Evans Dam and Booster Station McClurg Tanks and Booster Station Boardman Office and Service Center Ashtabula Service Center Ashtabula Water Treatment Plant Bunker Hill Tank and Booster Station Mentor Water Treatment Plant Mentor Intake Mentor Office Babcock Tanks and Booster Station

March 13 through 15, 2011

Huber Ridge Office Huber Ridge Wastewater Treatment Plant Huber Ridge Water Treatment Plant Huber Ridge Standpipe Worthington Hills Water Treatment Plant Worthington Hills Standpipe Timberbrook Water Treatment Plant Timberbrook Pumping Station Timberbrook Standpipe Lake Darby Water Treatment Plant Lake Darby Standpipe Lake Darby Wastewater Treatment Plant March 13 through 15, 2011, cont.

Black Lick Water Treatment Plant Black Lick Wastewater Treatment Plant Black Lick Standpipe Tiffin Water Treatment Plant Highland Standpipe Highland Booster Station Sentinel Standpipe Marion Water Treatment Plant Marion Distribution Center Victory Road Booster Station Victory Road Underground Storage Reservoir Marion Corporate Office Gurley Avenue Standpipe

October 21-22, 2008

Woodward Standpipes Lake Hamilton Dam Struthers Office Garfield Booster Station Struthers Road Tank Struthers Treatment Plant Low Lift Treatment Plant **Evans Dam** Pine Lake North Dam Pine Lake West Dam Southwestern Run Booster Station Boardman Service Center Station Street Standpipe Sylvia Reservoir Sylvia/Babcock Booster Station **Reynolds Tank and Booster Station** Lake Shore Treatment Plant Metro Park Tank and Booster Station Eagle Booster Station and Tanks Lake Erie East Tank Alder Street Tank Baxter Booster Station and Tank

SERVICE LIFE CONSIDERATIONS

The service life estimates were based on judgment which considered a number of factors. The primary factors were the statistical analyses of data, current Company policies and outlook as determined during field reviews of the property and other conversations with management, and the survivor curve estimates from other water companies.

The estimated survivor curves for most of the mass property accounts are based on statistical analyses of plant accounting data and the range of lives and type curves used for other companies in the water industry. Account 331, Transmission and Distribution Mains, is the largest plant account and is used to illustrate the manner in which the study was conducted for the groups using the retirement rate method. Aged retirement and other plant accounting data were compiled for the years 1888 through 2015. These data were coded in the course of the Company's normal recordkeeping according to plant account or property group, type of transaction, year in which the transaction took place, and year in which the water plant was placed in service. The data were analyzed by the retirement rate method of life analysis. The survivor curve chart for the account is presented on page VII-95 and the life tables for the experience bands, 1888-2015 and 1991-2015, plotted on the chart follows it.

Typical service lives for the mains of other water companies range from 75 to 100 years. The Iowa 90-R3 survivor curve is estimated to represent the future, inasmuch as it is a reasonable interpretation of the significant portion of the stub survivor curve through age 98, reflects the outlook of management and is within the typical range of lives for this account.

The estimate for Account 320, Water Treatment Equipment, is based on the 1917-2015 and 1991-2015 experience bands. The 55-R2 survivor curve is supported

by the chart set forth on page VII-77. The 55-year average service life is just beyond the upper end of the typical range of 25-50 years for other water companies.

The third largest account is Account 333, Services. The estimate of survivor characteristics is based on the 1887-2015 and 1991-2015 experience bands. As the survivor curve chart illustrates, both experience bands represent similar life characteristics and support the 75-R3 survivor curve. The 75-year average life is toward the upper end of the range of lives used by others in the industry.

The estimated survivor curve for Account 345, Power Operated Equipment, is based on statistical analyses of aged retirements during the periods, 1960-2015 and 1991-2015 using the retirement rate method. The 15-R1.5 for Account 345 is a very good fit of the original survivor curve as shown on page VII-137 and is typical for the surviving equipment in this account. The estimated survivor curve for Account 341.1, Transportation Equipment, is also based primarily on statistical analyses. The 1990-2015, 2006-2015 and 2012-2015 experience bands are reasonable representations of this property. The 10-S1 survivor curve is consistent with the estimates of others and is representative of management's plans for these assets.

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 water 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

SALVAGE ANALYSIS

The estimates of net salvage were based in part on historical data compiled for the years 1980 through 2015. The net salvage estimates are expressed as a percent of the original cost of plant retired. The salvage analyses include annual amounts and five-year moving average bases.

Net Salvage Considerations

The estimates of net salvage were based primarily on judgment which considered a number of factors. The primary factors were the analyses of historical data, a knowledge of management's plans and operating policies determined during the field trip and other discussions, a general knowledge of the water industry, and net salvage estimates used by other water companies. Depreciation reserve accounting data were compiled for the years 1980 through 2015. These data include the retirements, cost of removal and gross salvage.

The net salvage results for Accounts 330, Distribution Reservoirs and Standpipes, and 335, Fire Hydrants, will be used to illustrate the methods for estimating net salvage. The net salvage estimate for Account 330, Distribution Reservoirs and Standpipes, is negative 25 percent and is based on the historical analysis of salvage percents as shown in the tabulation on pages VIII-28 and VIII-29 and the typical range of net salvage estimates used by other water utilities for tanks. The historical indication for the period 1987 through 2015 is negative 25 percent, which is within the range of estimates for other water companies of negative 15 to 35 percent. The most recent five-year average, 2011-2015, was 0 percent net salvage. Based on the overall average and the range of estimates used by others, negative 25 percent net salvage is estimated for Account 330, Distribution Reservoirs and Standpipes. For Account 335,

Fire Hydrants, the net salvage estimate of negative 20 percent is based on the historical analysis of salvage percents as shown on pages VIII-38 and VIII-39. The average net salvage for this account for the period 1980-2015 is negative 21 percent, however, the trend, as indicated by the most recent five-year band, is positive 2 percent. The use of negative 20 percent net salvage is based on these indications and is within the range for other water companies of negative 15 to negative 30 percent.

The net salvage estimates for the remaining accounts were estimated using the above-described process of historical indications, judgment and reviewing the typical range of estimates used by other water 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 the 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 prior to average life is not recouped prior to average life is balanced by the cost recouped subsequent to average life.

In the average service life procedure, the annual accrual rate is computed by the following equation:

Annual Accrual Rate, $Percent = \frac{(100\% - Net Salvage, Percent)}{Average Service Life}$.

Single Unit of Property

After the survivor curve and net salvage are estimated, the annual and accrued depreciation can be calculated. 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 per year.

The accrued depreciation is:

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

For property groups in which the average service life of each vintage differs because the life of successive additions is restricted by an expected concurrent retirement of all associated property, the annual accrual rate is calculated separately for each vintage. The rate for each vintage is determined by the above equations, using the average service life calculated for the investment in that vintage. A composite rate for the total investment in such a group may then be calculated at a specific date by weighting the rate for each vintage by the related surviving investment.

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, service life and net salvage. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$Ratio = 1 - \left(\frac{Average \ Remaining \ Life}{Average \ Service \ Life}\right) (1 - Net \ Salvage, Percent).$$

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 appropriate for certain General Plant accounts that represent numerous units of property, but a very small portion of depreciable water plant in service. The accounts and their amortization periods are as follows:

Acc	ount	Amortization Period <u>Years</u>
340.1,	Office Furniture and Equipment	20
340.2,	Computer and Peripheral Equipment	5
340.3,	Computer Software	5
342,	Stores Equipment	25
343,	Tools, Shop and Garage Equipment	25
344,	Laboratory Equipment	20
346,	Communication Equipment	15
347,	Miscellaneous Equipment	15
348,	Other Tangible Property	20

The annual amortization amount is determined by dividing the original cost for vintages whose age is less than the amortization period by the period of amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period.

MONITORING OF BOOK ACCUMULATED DEPRECIATION

As stated previously, the calculated accrued depreciation or amortization represents that portion of the depreciable cost which will not be allocated to expense through future depreciation accruals, if current forecasts of service life characteristics and net salvage materialize and are used as a basis for depreciation accounting. Thus, the calculated accrued depreciation provides a measure of the book accumulated depreciation. The use of this measure is recommended in the adjustment of book accumulated depreciation variances to insure complete recovery of capital over the life of the property. The adjustment of the annual accrual to correct such variances can be made. The Company has identified a reserve variance of \$5,163,317 as of December 31, 2015 based on the results of the updated service life and net salvage studies.

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 whole 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 water plant in service as of December 31, 2015. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to December 31, 2015, is reasonable for a period of three to five years.

DESCRIPTION OF STATISTICAL SUPPORT

The service life and net salvage estimates were based on judgment which incorporated statistical analyses of retirement data, discussions with management and consideration of estimates made for other water utility companies. The results of the statistical analyses of service life are presented in the section titled "Service Life Statistics". The estimated survivor curves for each account are presented in graphical form. The charts depict the estimated smooth survivor curve and original survivor curve(s), when applicable, related to each specific group. For groups where the original survivor curve was plotted, the calculation of the original life table is also presented.

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

DESCRIPTION OF DEPRECIATION TABULATIONS

Summaries of the results of the study, as applied to the original cost of water plant at December 31, 2015, are presented on pages VI-4 through VI-11 of this report. Tables 1 and 2 present the study results. Table 1 is a summary of the calculated annual and accrued depreciation by account based on the straight line whole life method of depreciation. Table 2 compares the calculated accrued depreciation with the book depreciation reserve and sets forth the reserve variance by account.

The tables of the calculated annual and accrued depreciation are presented in account sequence in the section titled "Detailed Depreciation Calculations." 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 average life, the calculated annual accrual amount and rate, the expectancy, and the calculated accrued factor and depreciation.

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TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO WATER PLANT AS OF DECEMBER 31, 2015

				ORIGINAL COST	CALCU	LATED	CALCULATED
	DEPRECIABLE GROUP	SURVIVOR	NET	AS OF	ANNUAL	- ACCRUAL	ACCRUED
	(1)	(2)	(3)	(4)	(5)	(6)=(5)/(4)	UEPRECIATION (7)
	DEPRECIABLE PLANT						
-	STRUCTURES AND IMPROVEMENTS						
304.10	SOURCE OF SUPPLY	40-S0.5	(5)	1,626,862.65	42,430	2.61	542,288
304.20		60-R2.5	(20)	3,391,817.36	67,014	1.98	1,311,295
304.30	WALEK IKEAIMENI	60-R2.5	(20)	18,701,826.52	374,705	2.00	4,921,403
204.40		50-R3	(2)	2,072,808.28	43,529	2.10	685,650
304.01	GENERAL PLANI	55-R2.5	(10)	5,904,607.65	118,192	2.00	1,375,058
02 400		38-R2	0	1,097,314.55	28,859	2.63	529,702
	טיטרבט, טחטר אווט נאגאטב	30-R2.5	(2)	1,213,445.58	42,428	3.50	61,058
	TOTAL STRUCTURES AND IMPROVEMENTS			34,008,682.59	717,157	2.11	9,426,454
305.00	COLLECTING AND IMPOUNDING RESERVIORS	80-R2	(5)	4,458,499.01	58,518	1.31	1.364 439
306.00	LAKE, RIVER AND OTHER INTAKES	70-R2.5	(15)	2,909,261.97	47,843	1.64	1.488.017
307.00	WELLS AND SPRINGS	45-R2	(15)	4,853,892.01	123,518	2.54	1,574,477
306.00	INFILITATION GALLERIES AND TUNNELS	60-S1.5	0	24,409.47	408	1.67	2,831
340.00		70-R3	(2)	1,643,054,11	24,670	1.50	722,665
00.016	PUVER GENERALION EQUIPMENT	35-R4	(10)	4,244,045.20	133,518	3.15	1,132,423
00.115		45-R1	(10)	16,001,818.21	390,618	2.44	4,317,811
320.00	VVATER TREATMENT EQUIPMENT	55-R2	(15)	52,342,251.33	1,094,067	2.09	14,121,872
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	70-R3	(25)	18,218,253.67	325,647	1.79	6,170,343
330.40	DISTRIBUTION RESERVOIRS AND STANDPIPES - TANK PAINTING	15-SQ	0	1,818,846.63	121,317	6.67	215,053
	TOTAL ACCOUNT 330			20,037,100.30	446,964	2.23	6,385,396
331.00	TRANSMISSION AND DISTRIBUTION MAINS	90-R3	(45)	138,973,599.21	2,236,780	1.61	38,702,002
00.000	SERVICES	75-R3	(125)	47,693,124.76	1,427,217	2.99	21,969,400
334.10	METERS	22-R3	0	16,021,090.12	726,041	4.53	7,018,993
00.455	METER VAULIS AND INSTALLATIONS	31-L2.5	(2)	19,425,921.26	658,830	3.39	3,467,583
	TOTAL ACCOUNT 334			35,447,011.38	1,384,871	3.91	10,486,576

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TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO WATER PLANT AS OF DECEMBER 31, 2015

ULATED RUED CIATION	(2)	4,609,743	346,551 1,648,158	1,994,709	40,177 1,204,637	1,244,814	2,068,539 48,476	5,356,538	262,661 225,298	487,959	1,168,703 607,882	1,776,585
CALC		·		·	-	·						
CULATED ILE LIFE AL ACCRUAL RATE	(6)=(5)/(4)	1.60	0.00 20.00	18.39	0.00	9.88	5.00 0.00	9.98	0.00 5.00	2.89	0.00 20.00	13.29
CALC WHO ANNU/ AMOUNT	(5)	297,580	0 792,534	792,534	0 334,443	334,443	356,451 0	1,483,428	0 17,931	17,931	0 462,968	462,968
ORIGINAL COST AS OF DECEMBER 31, 2015	(4)	18,645,378.01	346,550.55 3,962,670.53	4,309,221.08	40,177.20 3,344,425.17	3,384,602.37	7,129,011.08 48,476.12	14,871,310.65	262,659.98 358,624.80	621,284.78	1,168,702.78 2,314,839.47	3,483,542.25
NET SALVAGE	(3)	(20)	0		0		00		o		o	
SURVIVOR CURVE	(2)	75-R2.5	FULLY ACCRUED 5-SQ		FULLY ACCRUED 10-SQ		20-SQ 15-SQ		FULLY ACCRUED 20-SQ		FULLY ACCRUED 5-SQ	
DEPRECIABLE GROUP	(1)	FIRE HYDRANTS	MISCELLANEOUS INTANGIBLE PLANT - 5 YEAR SOFTWARE FULLY ACCRUED AMORTIZED	TOTAL MISCELLANEOUS INTANGIBLE PLANT - 5 YEAR SOFTWARE	MISCELLANEOUS INTANGIBLE PLANT - 10 YÉAR SOFTWARE FULLY ACCRUED AMORTIZED	TOTAL MISCELLANEOUS INTANGIBLE PLANT - 10 YEAR SOFTWARE	MISCELLANEOUS INTANGIBLE PLANT - 20 YEAR SOFTWARE MISCELLANEOUS INTANGIBLE PLANT - FULLY DEPRECIATED	TOTAL ACCOUNT 339	OFFICE FURNITURE AND EQUIPMENT FULLY ACCRUED AMORTIZED	TOTAL OFFICE FURNITURE AND EQUIPMENT	COMPUTER AND PERIPHERAL EQUIPMENT FULLY ACCRUED AMORTIZED	TOTAL COMPUTER AND PERIPHERAL EQUIPMENT
 		335.00	339.11		339.12		339.13 339.14		340.10		340.20	

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Aqua OH December 31, 2015

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO WATER PLANT AS OF DECEMBER 31, 2015

CALCULATED ACCRUED DEPRECIATION (7)	498,805 298,433	797,238 3.061,782	1,045,733 227,654	1,273,387	26,405 15,899	42,304	198,473 878,558	1.077,031
ATED E LIFE ACCRUAL (6)=(5)((4)	0.00 14.29	6.30 10.75	9.00 0.00	8.47	0.00 4.00	1.85	0.00	3.67
CALCUI WHOLE ANNUAL AMOUNT (5)	0 56,191	56,191 537,090	328,081 0	328,081	0 911	911	0 89,711	89,711
ORIGINAL COST AS OF DECEMBER 31, 2015 (4)	498,806.25 393,219.93	892,026.18 4,996,853.21	3,645,962.03 227,654.05	3,873,616.08	26,404.69 22,764,96	49,169.65	198,473.24 2,242,780.74	2,441,253.98
NET SALVAGE (3)	o		0		o		o	
SURVIVOR CURVE (2)	FULLY ACCRUED 7-SQ		10-S1 FULLY ACCRUED		FULLY ACCRUED 25-SQ		FULLY ACCRUED 25-SQ	
DEPRECIABLE GROUP (1)	30 COMPUTER SOFTWARE FULLY ACCRUED AMORTIZED	TOTAL COMPUTER SOFTWARE TOTAL ACCOUNT 340	10 TRANSPORTATION EQUIPMENT 20 TRANSPORTATION EQUIPMENT - FULLY DEPRECIATED	TOTAL ACCOUNT 341	<pre>30 STORES EQUIPMENT FULLY ACCRUED AMORTIZED</pre>	TOTAL STORES EQUIPMENT	D0 TOOLS, SHOP AND GARAGE EQUIPMENT FULLY ACCRUED AMORTIZED	TOTAL TOOLS, SHOP AND GARAGE EQUIPMENT
	340.3		341.1 341.2		342.0		343.0	

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TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO WATER PLANT AS OF DECEMBER 31, 2015

		SURVIVOR	NET	ORIGINAL COST AS OF	CALCU WHOL	JLATED E LIFE - ACCRUAL	CALCULATED ACCRUED
	(1)	CURVE (2)	SALVAGE (3)	DECEMBER 31, 2015 (4)	AMOUNT (5)	RATE (6)=(5)/(4)	DEPRECIATION (7)
344.00) LABORATORY EQUIPMENT FULLY ACCRUED AMORTIZED	FULLY ACCRUED 20-SQ	٥	264,583.32 535,610.35	0 26,781	0.00 5.00	264,583 217,326
	TOTAL LABORATORY EQUIPMENT			800,193.67	26,781	3.35	481,909
345.00	POWER OPERATED EQUIPMENT	15-R1.5	20	2,431,705.97	129,756	5.34	775,402
346.00) Communication Equipment Fully Accrued Amortized	FULLY ACCRUED 15-SQ	0	413,080,45 4,359,310.54	0 290,766	0.00 6.67	413,078 2,177,336
	TOTAL COMMUNICATION EQUIPMENT			4,772,390.99	290,766	6.09	2,590,414
347,00	MISCELLANEOUS EQUIPMENT FULLY ACCRUED AMORTIZED	FULLY ACCRUED 15-SQ	o	94,117.49 402,126.30	0 26,822	0.00 6.67	94,119 215,896
	TOTAL MISCELLANEOUS EQUIPMENT			496,243,79	26,822	5.41	310,015
348.00	OTHER TANGIBLE PROPERTY	20-SQ	0	7,677.06	384	5.00	4,566
	TOTAL DEPRECIABLE PLANT			416,022,542.61	11,297,459	2.72	131,277,454

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO WATER PLANT AS OF DECEMBER 31, 2015

CALCULATED ACCRUED DEPRECIATION (7)		131,277,454
ULATED LE LIFE LL ACCRUAL RATE (6)=(5)/(4)		
CALC WHO ANNUA AMOUNT (5)		11,297,459
ORIGINAL COST AS OF DECEMBER 31, 2015 (4)	129,251.89 37,997.50 2,881,441.02 82,367.29 1,068,813.50 2,039,319.90 776,345.28 7,015,536,38	423,038,078.99
NET SALVAGE (3)		
SURVIVOR CURVE (2)		
DEPRECIABLE GROUP (1)	NONDEPRECIABLE PLANT 01.00 ORGANIZATION 02.00 FRANCHISES 02.00 FRANCHISES 03.10 LAND AND LAND RIGHTS - SOURCE OF SUPPLY 03.20 LAND AND LAND RIGHTS - SOURCE OF SUPPLY 03.30 LAND AND LAND RIGHTS - PUMPING PLANT 03.40 LAND AND LAND RIGHTS - WATER TREATMENT PLANT 03.40 LAND AND LAND RIGHTS - WATER TREATMENT PLANT 03.51 LAND AND LAND RIGHTS - GENERAL PLANT 03.61 LAND AND LAND RIGHTS - GENERAL PLANT 03.61 LAND AND LAND RIGHTS - GENERAL PLANT	TOTAL WATER PLANT

TABLE 2. CALCULATION OF RESERVE VARIANCE RELATED TO WATER PLANT AS OF DECEMBER 31, 2015

	DEPRECIABLE GROUP	BOOK	CALCULATED ACCRUED DEPRECIATION	
	(1)	(2)	(3)	(4)=(2)-(3)
	DEPRECIABLE PLANT			.,,
	STRUCTURES AND IMPROVEMENTS			
304.10	SOURCE OF SUPPLY	264 162	540.000	(004 405)
304.20	PUMPING PLANT	1 610 107	342,200	(201,135)
304 30	WATER TREATMENT	1,020,207	1,311,295	316,912
304 40	TRANSMISSION AND DISTRIBUTION	0,997,400	4,921,403	2,076,063
304 61	GENERAL PLANT	1 62,390	003,050	96,740
304.63		1,090,000	1,375,058	320,948
304.70	STORES, SHOP AND GARAGE	1,004,403	529,702	4/4,/01 (33,023)
			01,000	(00,020)
	TOTAL STRUCTURES AND IMPROVEMENTS	12,397,661	9,426,454	2,971,207
305.00	COLLECTING AND IMPOUNDING RESERVIORS	1,493,609	1,364,439	129,170
306.00	LAKE, RIVER AND OTHER INTAKES	1,449,547	1 488 017	(38.470)
307.00	WELLS AND SPRINGS	2 314 240	1 574 477	730 763
308.00	INFILTRATION GALLERIES AND TUNNELS	992	2 831	(1.830)
309.00	SUPPLY MAINS	544 357	722 665	(178 308)
310.00	POWER GENERATION EQUIPMENT	1.060.242	1 132 423	(72 181)
311.00	PUMPING EQUIPMENT	6 132 810	4 317 811	1 81/ 000
320.00	WATER TREATMENT EQUIPMENT	18,026,927	14,121,872	3,905,055
330.00		C CO 4 FOC	0 470 D 40	
330.40		0,094,005	6,170,343	524,162
000.40	DIG TRED TOW REDERVOIRS AND STANDEIPES - TANK PAINTING	215,053	215,053	0
	TOTAL ACCOUNT 330	6,909,558	6,385,396	524,162
331.00	TRANSMISSION AND DISTRIBUTION MAINS	31,628,835	38,702,002	(7.073.167)
333.00	SERVICES	24,484,436	21,969,400	2,515,036
334.10	METERS	6 746 267	7 018 993	(272 726)
334.80	METER VAULTS AND INSTALLATIONS	2,554,248	3,467,583	(913,335)
	TOTAL ACCOUNT 334	9,300,516	10,486,576	(1,186,060)
335.00	FIRE HYDRANTS	5,252,718	4,609,743	642,975
339.11	MISCELLANEOUS INTANGIBLE PLANT - 5 YEAR SOFTWARE			
	FULLY ACCRUED	346.551	346 551	п
	AMORTIZED	1,143,705	1,648,158	(504,453)
	TOTAL MISCELLANEOUS INTANGIBLE PLANT - 5 YEAR SOFTWARE	1,490,256	1,994,709	(504,453)
339 12	MISCELLANEOLIS INTANGIRI E DI ANT. 10 YEAD SOFTWARE			
	FULLY ACCRUED	40 477	40 4 77	~
	AMORTIZED	40,177	40,177	0
	a na na na na na na haifi na kan kan	1,172,090	1,204,037	(31,741)
	TOTAL MISCELLANEOUS INTANGIBLE PLANT - 10 YEAR SOFTWARE	1,213,073	1,244,814	(31,741)

TABLE 2. CALCULATION OF RESERVE VARIANCE RELATED TO WATER PLANT AS OF DECEMBER 31, 2015

	DEPRECIABLE GROUP	BOOK RESERVE	CALCULATED ACCRUED DEPRECIATION	RESERVE VARIANCE
	(1)	(2)	(3)	(4)=(2)-(3)
339.13 339.14	MISCELLANEOUS INTANGIBLE PLANT - 20 YEAR SOFTWARE MISCELLANEOUS INTANGIBLE PLANT - FULLY DEPRECIATED	2,086,797 48,476	2,068,539 48,476	18,258 0
	TOTAL ACCOUNT 339	4,838,602	5,356,538	(517,936)
340.10				
	AMORTIZED	262,661 170,307	262,661 225,298	0 (54,991)
	TOTAL OFFICE FURNITURE AND EQUIPMENT	432,968	487,959	(54,991)
340.20	COMPUTER AND PERIPHERAL EQUIPMENT			
	AMORTIZED	1,168,703 1,175,554	1,168,703 <u>607,882</u>	0 567,672
	TOTAL COMPUTER AND PERIPHERAL EQUIPMENT	2,344,257	1,776,585	567,672
340.30	COMPUTER SOFTWARE			
	AMORTIZED	498,805 29,602	498,805 298,433_	0 (268,831)
	TOTAL COMPUTER SOFTWARE	528,407	797,238	(268,831)
	TOTAL ACCOUNT 340	3,305,632	3,061,782	243,850
341.10 341.20	TRANSPORTATION EQUIPMENT TRANSPORTATION EQUIPMENT - FULLY DEPRECIATED	1,292,292 227,654	1,045,733	246,559
	TOTAL ACCOUNT 341	1 519 946	1 273 387	246 559
342.00	STORES FOURPMENT		. ¹	2-70,000
0.00	FULLY ACCRUED AMORTIZED	26,405 16,058	26,405 15,899	0 159
	TOTAL STORES EQUIPMENT	42,463	42,304	159
343.00	TOOLS, SHOP AND GARAGE EQUIPMENT			
	AMORTIZED	198,473 884,349	198,473 878,558	0 5,791
	TOTAL TOOLS, SHOP AND GARAGE EQUIPMENT	1,082,822	1,077,031	5,791
344.00				
	AMORTIZED	264,583 246,207	264,583 217,326	0 28,881
	TOTAL LABORATORY EQUIPMENT	510,790	481,909	28,881
345.00	POWER OPERATED EQUIPMENT	1,371,109	775,402	595,707

			CALCULATED	
	DEPRECIABLE GROUP	BOOK RESERVE	ACCRUED DEPRECIATION	RESERVE VARIANCE
	(1)	(2)	(3)	(4)=(2)-(3)
346.00	COMMUNICATION EQUIPMENT			
	FULLY ACCRUED	413.078	413.078	D
	AMORTIZED	2,021,818	2,177,336	(155,518)
	TOTAL COMMUNICATION EQUIPMENT	2,434,896	2,590,414	(155,518)
347.00	MISCELLANEOUS EQUIPMENT			
	FULLY ACCRUED	94,119	94,119	0
	AMORTIZED	161,555	215,896	(54,341)
	TOTAL MISCELLANEOUS EQUIPMENT	255,674	310,015	(54,341)
348.00	OTHER TANGIBLE PROPERTY	82,388	4,566	77,822
ī	TOTAL DEPRECIABLE PLANT	136,440,771	131,277,454	5,163,317

TABLE 2. CALCULATION OF RESERVE VARIANCE RELATED TO WATER PLANT AS OF DECEMBER 31, 2015

PART VII. SERVICE LIFE STATISTICS
AQUA OHIO, INC. ACCOUNT 304.10 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 304.10 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY

ORIGINAL LIFE TABLE

PLACEMENT BAND 1886-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	1,075,194	3,624	0.0034	0.9966	100.00
0.5	1,070,251		0.0000	1.0000	99.66
1.5	832,356		0.0000	1.0000	99.66
2.5	835,139		0.0000	1.0000	99.66
3.5	835,445	1,355	0.0016	0.9984	99.66
4.5	892,062	3,403	0.0038	0.9962	99.50
5.5	912,273	5,541	0.0061	0.9939	99.12
6.5	922,985	731	0.0008	0.9992	98.52
7.5	833,146	3,722	0.0045	0.9955	98,44
8.5	940,569	9,775	0.0104	0.9896	98.00
9.5	917,158	885	0.0010	0.9990	96.98
10.5	876,616	12,863	0.0147	0.9853	96.89
11.5	658,845	4,856	0.0074	0.9926	95.47
12.5	728,730	8,623	0.0118	0.9882	94.76
13.5	722,256	6,689	0.0093	0.9907	93.64
14.5	712,426	9,154	0.0128	0.9872	92.78
15.5	1,006,620	8,590	0.0085	0.9915	91.58
16.5	1,014,040	3,261	0.0032	0.9968	90.80
17.5	979,522	11,038	0.0113	0.9887	90.51
18.5	686,407	13,658	0.0199	0.9801	89.49
19.5	669,173	31,707	0.0474	0.9526	87.71
20.5	659,165	122,681	0.1861	0.8139	83.55
21.5	527,601	4,539	0.0086	0.9914	68.00
22.5	506,078	859	0.0017	0.9983	67.42
23.5	545,718	10,152	0.0186	0.9814	67.30
24.5	485,752	1,213	0.0025	0.9975	66.05
25.5	452,137	50,030	0.1107	0.8893	65.89
26.5	340,197	12,131	0.0357	0.9643	58.60
27.5	342,146	933	0.0027	0.9973	56.51
28.5	341,544	11,607	0.0340	0.9660	56.35
29.5	327,032		0.0000	1.0000	54.44
30.5	287,504	85	0.0003	0.9997	54.44
31.5	288,442	888	0.0031	0.9969	54.42
32.5	284,661	10,075	0.0354	0.9646	54.25
33.5	261,944	1,058	0.0040	0.9960	52.33
34.5	246,918	241	0.0010	0.9990	52.12
35.5	239,465		0.0000	1.0000	52.07
36.5	228,496		0.0000	1.0000	52.07
37.5	245,459		0.0000	1.0000	52.07
38.5	240,892		0.0000	1.0000	52.07

ACCOUNT 304.10 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1886-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	271,377		0.0000	1.0000	52.07
40.5	265,659	151	0.0006	0.9994	52.07
41.5	265,508	646	0.0024	0.9976	52.04
42.5	266,462	124,387	0.4668	0.5332	51.92
43.5	142,075	8,451	0.0595	0.9405	27.68
44.5	133,310	-,	0.0000	1.0000	26.03
45.5	129,662	263	0.0020	0.9980	26.03
46.5	129,399	2,238	0.0173	0.9827	25.98
47.5	127,161	441	0.0035	0.9965	25.53
48.5	126,720		0.0000	1.0000	25.44
49.5	128,066	509	0.0040	0.9960	25.44
50.5	125,878		0.0000	1.0000	25.34
51.5	109,561	4,737	0.0432	0.9568	25.34
52.5	78,030		0.0000	1.0000	24.25
53.5	49,958		0.0000	1.0000	24.25
54.5	49,958		0.0000	1.0000	24.25
55.5	49,958		0.0000	1.0000	24.25
56.5	49,958		0.0000	1.0000	24.25
57.5	49,958		0.0000	1.0000	24.25
58.5	49,958		0.0000	1.0000	24.25
59.5	49,958		0.0000	1.0000	24.25
60.5	49,958		0.0000	1.0000	24.25
61.5	49,958		0.0000	1.0000	24.25
62.5	49,958	1,692	0.0339	0.9661	24.25
63.5	14,646	944	0.0644	0.9356	23.43
64.5	13,703		0.0000	1.0000	21.92
65.5	13,703		0.0000	1.0000	21.92
66.5	13,703		0.0000	1.0000	21,92
67.5	13,703		0.0000	1.0000	21.92
68.5	13,703		0.0000	1.0000	21.92
69.5	13,703	728	0.0532	0.9468	21.92
70.5	12,974		0.0000	1.0000	20.75
71.5	12,974	747	0.0576	0.9424	20.75
72.5	12,228		0.0000	1.0000	19.56
73.5	12,228		0.0000	1.0000	19.56
74.5	12,228		0.0000	1.0000	19.56
75.5	12,228		0.0000	1.0000	19.56
76.5	12,228		0.0000	1.0000	19.56
77.5	12,228	127	0.0104	0.9896	19.56
78.5	12,100		0.0000	1.0000	19.35

ACCOUNT 304.10 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1886-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	12,100		0.0000	1,0000	19.35
80.5	12,100		0.0000	1.0000	19.35
81.5	12,100		0.0000	1.0000	19.35
82.5	12,100		0.0000	1.0000	19.35
83.5	12,100		0.0000	1.0000	19.35
84.5	12,100		0.0000	1.0000	19.35
85.5	12,100		0.0000	1.0000	19.35
86.5	12,100		0.0000	1.0000	19.35
87.5	12,100		0.0000	1.0000	19,35
88.5	12,100		0.0000	1,0000	19.35
89,5	7,467		0.0000	1.0000	19.35
90.5	7,467		0.0000	1.0000	19.35
91.5	7,467		0.0000	1.0000	19.35
92.5	7,467		0.0000	1.0000	19.35
93.5	7,467		0.0000	1.0000	19.35
94.5	7,467		0.0000	1.0000	19.35
95.5	7,467		0.0000	1.0000	19.35
96.5	7,467		0.0000	1.0000	19.35
97.5	1,600		0.0000	1.0000	19.35
98.5	1,600		0.0000	1.0000	19.35
99.5	1,600		0.0000	1.0000	19.35
100.5	1,600		0.0000	1.0000	19.35
101.5	1,600		0.0000	1.0000	19.35
102.5	1,600		0.0000	1.0000	19.35
103.5	1,600		0.0000	1.0000	19.35
104.5	1,600		0.0000	1.0000	19.35
105.5	1,600		0.0000	1.0000	19.35
106.5	1,600		0.0000	1.0000	19.35
107.5	1,600		0.0000	1.0000	19.35
108.5	1,600		0.0000	1.0000	19.35
109.5	1,600		0.0000	1.0000	19.35
110.5	1,600		0.0000	1.0000	19.35
111.5	1,600		0.0000	1.0000	19.35
112.5	1,600		0.0000	1.0000	19.35
113.5	1,600		0.0000	1.0000	19.35
114.5	1,600		0.0000	1.0000	19.35
115.5	1,600		0.0000	1.0000	19.35
116.5	1,600		0.0000	1.0000	19.35
117.5	1,600		0.0000	1.0000	19.35
118.5	1,600	1,600	1.0000		19.35
119.5					

ACCOUNT 304.10 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY

ORIGINAL LIFE TABLE

PLACEMENT BAND 1886-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0 0	600 61 F				
0.0	639,615	3,624	0.0057	0.9943	100.00
0.5	636,877		0.0000	1.0000	99.43
1.5	398,982	•	0.0000	1.0000	99.43
2.5	409,208		0.0000	1.0000	99.43
3.5	437,132		0.0000	1.0000	99.43
4.5	628,315	2,827	0.0045	0.9955	99.43
5.5	664,120	5,541	0.0083	0.9917	98.99
6.5	677,457	731	0.0011	0.9989	98.16
7.5	588,885	3,564	0.0061	0.9939	98.05
8.5	700,629	9,775	0.0140	0.9860	97.46
9.5	681,418	885	0.0013	0.9987	96.10
10.5	643,199	12,863	0.0200	0.9800	95.98
11.5	425,428	4,856	0.0114	0.9886	94.06
12.5	495,313	8,623	0.0174	0,9826	92.98
13.5	515,963	6.638	0.0129	0.9871	91.36
14.5	506,185	9,154	0.0181	0.9819	90.19
15.5	813.224	8,590	0.0106	0.9894	88.56
16.5	824,592	3,261	0 0040	0 9960	87 62
17.5	790,075	11.038	0.0140	0.9860	87 28
18.5	496,960	13,658	0.0275	0.9725	86.06
19.5	479.725	31,707	0.0661	0.9339	83 69
20.5	469.717	122,681	0 2612	0 7388	78 16
21.5	338 153	4 539	0.2012	0.7300	57 75
22 5	316 630	4,000	0.0134	0.0000	57.75
23 5	356 270	10 150	0.0027	0.0015	50.97
24 5	296 545	1 212	0.0285	0.9719	50.02 EE 20
25 5	250,040	±,2±3	0.0041	0.99999	55.20
26 5	167 196	50,030	0.1903	0.8097	54.97
20.5	160 375	14,191	0.0725	0.9275	44.51
28.5	168,773	933 11,607	0.0688	0.9945	41.29
20 E	154 001	,	0 0000	1 0000	
29.5	154,261	95	0.0000	1.0000	38.24
30.5	115,259	85	0.0007	0.9993	38.24
31.5	116,638	888	0.0076	0.9924	38.21
32.5	114,168	10,075	0.0882	0.9118	37.92
33.5	100,412	1,058	0.0105	0.9895	34.57
34.5	85,386	241	0.0028	0.9972	34.21
35.5	82,671		0.0000	1.0000	34.11
36.5	71,702		0.0000	1.0000	34.11
37.5	88,665		0.0000	1.0000	34.11
38.5	224,442		0.0000	1.0000	34.11

ACCOUNT 304.10 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1886-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
30 5					
39.5	254,927		0.0000	1.0000	34.11
40.5	249,208	151	0.0006	0.9994	34.11
41.5	249,057	646	0.0026	0.9974	34.09
42.5	248,411	124,387	0.5007	0.4993	34.00
43.5	124,024	8,451	0.0681	0.9319	16.98
44.5	115,259		0.0000	1.0000	15.82
45.5	111,611	263	0.0024	0.9976	15.82
46.5	113,040	525	0.0046	0.9954	15.78
47,5	112,515	441	0.0039	0.9961	15.71
48.5	113,018		0.0000	1.0000	15.65
49.5	114,364	509	0.0045	0.9955	15.65
50.5	112,175		0.0000	1.0000	15,58
51.5	95,858	4,737	0.0494	0.9506	15.58
52.5	64,327		0.0000	1.0000	14.81
53.5	36,255		0.0000	1.0000	14.81
54.5	36,983		0.0000	1.0000	14.81
55.5	36,983		0.0000	1.0000	14.81
56.5	36,983		0.0000	1.0000	14.81
57.5	37,730		0.0000	1.0000	14.81
58.5	37,730		0.0000	1.0000	14.81
59.5	37,730		0.0000	1,0000	14.81
60.5	37,730		0.0000	1.0000	14.81
61.5	37,857		0.0000	1.0000	14.81
62.5	37,857	1,692	0.0447	0.9553	14.81
63.5	2,546	944	0.3707	0.6293	14.15
64.5	6,235		0.0000	1.0000	8,90
65.5	6,235		0.0000	1.0000	8,90
66.5	6,235		0.0000	1.0000	8.90
67.5	6,235		0.0000	1.0000	8.90
68.5	6,235		0.0000	1.0000	8.90
69.5	6.235	728	0 1168	0 8832	8 90
70.5	5,507		0.0000	1 0000	7 86
71.5	5,507	747	0.1356	0 8644	7 86
72.5	10.627		0 0000	1 0000	6 80
73.5	10,627			1 0000	6.80
74.5	10,627		0 0000	1 0000	6 RO
75.5	10,027		0.0000	1 0000	6.00 6.80
76.5	10,027		0.0000	1 0000	6.00 2 00
77 5	10,027	ר כ ר	0.000.0	7.0000 T.0000	0.00 6 00
785	10,027	127	0.0120	1 0000	0.00
10.0	TO'200		0.0000	T.0000	0./1

ACCOUNT 304.10 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1886-2015

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 80.5 81.5 82.5 83.5 84.5 85.5 86.5	10,500 10,500 10,500 10,500 10,500 10,500 10,500		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	6.71 6.71 6.71 6.71 6.71 6.71 6.71 6.71
88.5	10,500		0.0000	1.0000	6.71 6.71
89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5 98.5	5,867 5,867 5,867 5,867 5,867 5,867 5,867 5,867		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	6.71 6.71 6.71 6.71 6.71 6.71 6.71 6.71
99.5 100.5 101.5 102.5 103.5					
104.5 105.5 106.5 107.5 108.5	1,600 1,600 1,600 1,600 1,600		0.0000 0.0000 0.0000 0.0000 0.0000		
109.5 110.5 111.5 112.5 113.5 114.5 115.5 116.5 117.5 118.5	1,600 1,600 1,600 1,600 1,600 1,600 1,600 1,600 1,600 1,600	1,600	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 1.0000		
119.5		-			

AQUA OHIO, INC. ACCOUNTS 304.20 AND 304.30 STRUCTURES AND IMPROVEMENTS ORIGINAL AND SMOOTH SURVIVOR CURVES



🖄 Gannett Fleming

ACCOUNTS 304.20 AND 304.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0 0	03 300 SEA				
0.0	23,382,373	770	0.0000	1.0000	100.00
0.5	22,923,889	145	0.0000	1.0000	100.00
1.5	21,814,360	2,970	0.0001	0.9999	100.00
2.5	18,639,101	298	0.0000	1.0000	99.98
3.5	17,789,648	5,122	0.0003	0.9997	99.98
4.5	17,394,172	14,686	0.0008	0.9992	99.95
5.5	17,006,380	4,377	0.0003	0.9997	99.87
б.5	15,359,235	12,857	0.0008	0.9992	99.84
7.5	14,373,715	34,944	0.0024	0.9976	99,76
8.5	14,028,923	20,936	0.0015	0.9985	99,52
9.5	12,617,041	3,030	0.0002	0.9998	99.37
10.5	12,399,239	15,908	0.0013	0.9987	99.34
11.5	11,651,594	52,442	0.0045	0.9955	99.22
12.5	11,166,288	41,244	0.0037	0.9963	98.77
13.5	11,035,583	29,025	0.0026	0.9974	98,40
14.5	10,318,229	30,085	0.0029	0.9971	98.15
15.5	9,967,943	21,267	0.0021	0,9979	97.86
16.5	9,616,560	10,323	0.0011	0.9989	97.65
17.5	8,552,912	5,739	0.0007	0.9993	97.55
18.5	8,177,066	13,030	0.0016	0.9984	97.48
19.5	6,674,077	104,192	0.0156	0.9844	97.33
20,5	5,863,980	14,862	0.0025	0.9975	95.81
21.5	5,515,510	14,383	0.0026	0.9974	95.56
22.5	5,296,136	3,274	0.0006	0.9994	95.31
23.5	5,310,753	11,973	0.0023	0.9977	95.25
24.5	5,088,949	28,787	0.0057	0.9943	95.04
25.5	4,742,856	64,750	0.0137	0,9863	94.50
26.5	4,667,000	13,193	0.0028	0.9972	93.21
27.5	4,544,730	7,870	0.0017	0.9983	92.95
28.5	4,182,056	31,137	0.0074	0.9926	92.79
29.5	4,099,939	19,816	0.0048	0.9952	92.10
30.5	3,784,140	23,432	0.0062	0.9938	91.65
31.5	2,882,897	4,994	0.0017	0.9983	91.08
32.5	2,757,262	2,916	0.0011	0.9989	90.93
33.5	2,655,312	47,597	0.0179	0,9821	90.83
34.5	2,565,137	877	0.0003	0.9997	89 20
35.5	2,565,480	18.835	0.0073	0.9927	89 17
36.5	2,546,614	18,405	0.0072	0.9928	88 52
37.5	2,613,144	14.205	0.0054	0.9946	87 88
38.5	2,604,311	8,954	0.0034	0.9966	87 40
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ACCOUNTS 304.20 AND 304.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39 5	2 646 939	1 753	0 0007	0 0007	07 10
39.5 40 E	2,040,030	1,124	0.0007	0.9993	67.1U
40.5	2,009,001 0 EDD 010	0,///	0.0034	0.9966	87.04
41.5 49 E	2,535,612	11,233	0.0044	0.9956	86.75
42.5	2,435,058	1,284	0.0005	0.9995	86.36
45.5	2,348,470	3,3UL 26,30C	0.0014	0.9986	86.32
44.0	2,344,113	26,196	0.0112	0.9888	86.20
45.5	2,312,031	9,955	0.0043	0.9957	85.23
40.5	2,200,045	1/6,438	0.0772	0.9228	84.86
47.0	2,019,908	1,058	0.0005	0.9995	78.32
48.5	2,010,760	2,822	0.0014	0.9986	78.28
49.5	2,013,833	6,709	0.0033	0,9967	78.17
50.5	1,825,843	4,424	0.0024	0.9976	77.91
51.5	1,723,144	859	0.0005	0.9995	77.72
52.5	1,673,520	4,808	0.0029	0.9971	77.68
53.5	1,359,186	2,928	0.0022	0.9978	77.46
54.5	1,355,218	4,611	0.0034	0.9966	77.29
55.5	1,349,414	12,048	0.0089	0.9911	77.03
56.5	1,337,158	3,597	0.0027	0.9973	76.34
57.5	987,769	166	0.0002	0.9998	76.13
58.5	610,885		0.0000	1.0000	76.12
59.5	609,757		0.0000	1.0000	76.12
60.5	599,682		0.0000	1.0000	76.12
61.5	391,105	6,701	0.0171	0.9829	76.12
62.5	352,116	203	0.0006	0.9994	74.82
63.5	312,074	10,297	0.0330	0.9670	74.77
64.5	295,579	221	0.0007	0.9993	72.31
65.5	281,949		0.0000	1.0000	72.25
66.5	281,949		0.0000	1.0000	72.25
67.5	281,458		0.0000	1.0000	72.25
68.5	278,857		0.0000	1.0000	72.25
69.5	273,190	110	0.0004	0.9996	72.25
70.5	273,080		0.0000	1.0000	72.22
71.5	273.080	1,210	0.0044	0.9956	72.22
72.5	271,870	126	0.0005	0.9995	71 90
73.5	262,010	124	0.0005	0.9995	71 87
74.5	261.609	635	0.0024	0.9976	71 83
75.5	260.768	170	0.0007	0.9993	71 EE
76.5	242,902	147	0 0006	0 9994	71 61
77.5	242 683	23 003	0.0000	0.9052	71 E7
78.5	219 681	23,002	0.0040	1 0000	61 70
	440,001		0.0000	7.0000	04./3

ACCOUNTS 304.20 AND 304.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	219,681		0.0000	1.0000	64.79
80.5	219,681		0.0000	1.0000	64.79
81.5	219,681		0.0000	1.0000	64.79
82.5	219,681	7,460	0.0340	0.9660	64.79
83.5	189,048		0.0000	1.0000	62.59
84.5	188,716		0.0000	1.0000	62.59
85.5	188,716		0.0000	1.0000	62.59
86.5	188,716		0.0000	1.0000	62.59
87.5	164,519		0.0000	1.0000	62,59
88.5	163,213		0.0000	1.0000	62.59
89.5	163,213		0.0000	1.0000	62.59
90.5	156,297		0.0000	1.0000	62.59
91.5	99,137		0.0000	1.0000	62.59
92.5	95,159		0.0000	1.0000	62.59
93.5	95,159	232	0.0024	0.9976	62.59
94.5	94,927		0.0000	1.0000	62,44
95.5	94,915		0.0000	1.0000	62.44
96.5	94,915		0.0000	1.0000	62.44
97.5	94,915		0.0000	1.0000	62.44
98.5	87,323		0.0000	1.0000	62.44
99.5	87,323		0.0000	1.0000	62.44
100.5	87,323		0.0000	1.0000	62.44
101.5	63,531		0.0000	1.0000	62.44
102.5	63,531		0.0000	1.0000	62.44
103.5	63,531		0.0000	1.0000	62.44
104.5	56,118		0.0000	1.0000	62.44
105.5	56,118		0.0000	1.0000	62.44
106.5	56,118		0.0000	1.0000	62.44
107.5	51,823		0.0000	1.0000	62.44
108.5	51,823		0.0000	1.0000	62.44
109.5	51,823		0.0000	1.0000	62.44
110.5	51,823		0.0000	1.0000	62.44
111.5	51.823		0.0000	1.0000	62.44
112.5	51,823		0.0000	1.0000	62.44
113.5	51,823		0.0000	1.0000	62.44
114.5	51,823		0,0000	1.0000	62.44
115.5	51,823		0.0000	1.0000	62.44
116.5	51.823		0.0000	1.0000	62.44
117.5	51,823		0.0000	1.0000	62.44
118.5	51,823		0.0000	1.0000	62.44

ACCOUNTS 304.20 AND 304.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
119.5	51,823		0.0000	1.0000	62.44
120.5	51,823		0.0000	1.0000	62.44
121.5	47,827		0.0000	1.0000	62.44
122.5	47,827		0.0000	1.0000	62.44
123.5	47,827		0.0000	1.0000	62.44
124.5	47,827		0.0000	1.0000	62.44
125.5	47,827		0.0000	1.0000	62.44
126.5	47,827		0.0000	1.0000	62.44
127.5	47,827		0.0000	1.0000	62.44
128.5	17,930		0.0000	1.0000	62.44
129.5	17,930		0.0000	1.0000	62.44
130.5	17,930		0.0000	1.0000	62.44
131.5	17,930		0.0000	1.0000	62.44
132.5	17,930		0.0000	1.0000	62.44
133.5	17,930		0.0000	1.0000	62.44
134.5	17,930		0.0000	1.0000	62.44
135.5	17,930		0.0000	1.0000	62.44
136.5					62.44

ACCOUNTS 304.20 AND 304.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	20,852,027	770	0.0000	1.0000	100.00
0.5	20,430,666	145	0.0000	1.0000	100.00
1.5	19,330,030	2,970	0.0002	0.9998	100.00
2.5	16,176,492	298	0.0000	1.0000	99.98
3.5	15,359,681	5,122	0.0003	0.9997	99.98
4.5	15,004,185	14,686	0.0010	0.9990	99.95
5.5	14,639,168	4,377	0.0003	0.9997	99.85
6.5	13,034,729	12,857	0.0010	0.9990	99.82
7.5	12,153,320	34,944	0.0029	0.9971	99.72
8.5	11,787,199	20,936	0.0018	0.9982	99.43
9.5	10,377,874	3,030	0.0003	0.9997	99.26
10.5	10,205,308	15,908	0.0016	0.9984	99.23
11.5	9,469,978	52,442	0.0055	0.9945	99.07
12.5	9,096,085	41,244	0.0045	0.9955	98.52
13.5	8,973,442	29,025	0.0032	0.9968	98.08
14.5	8,254,623	30,085	0.0036	0.9964	97.76
15.5	8,077,322	21,267	0.0026	0.9974	97.40
10.5	7,727,495	10,323	0.0013	0.9987	97.15
17.5	6,678,730	5,739	0.0009	0.9991	97.02
18.2	6,550,349	13,030	0.0020	0.9980	96.93
19.5	5,052,336	104,192	0.0206	0.9794	96.74
20.5	4,246,539	14,862	0.0035	0.9965	94.75
21.5	3,898,946	14,383	0.0037	0.9963	94.41
22.5	4,087,728	3,274	0.0008	0.9992	94.07
23.5	4,697,919	11,973	0.0025	0.9975	93.99
24.5	4,477,547	28,787	0.0064	0.9936	93.75
25.5	4,143,629	64,750	0.0156	0.9844	93.15
26.5	4,290,404	11,393	0.0027	0.9973	91.69
27.5	4,211,830	7,870	0.0019	0.9981	91.45
28.5	3,885,000	31,137	0.0080	0.9920	91.28
29.5	3,809,830	19,816	0.0052	0.9948	90.55
30.5	3,522,962	23,432	0.0067	0.9933	90.08
31.5	2,624,306	4,994	0.0019	0.9981	89.48
32.5	2,499,162	2,916	0.0012	0.9988	89.31
33.5	2,399,814	47,597	0.0198	0.9802	89.20
34.5	2,315,714	877	0.0004	0.9996	87.43
35.5	2,286,159	18,835	0.0082	0.9918	87.40
36.5	2,267,294	18,405	0.0081	0.9919	86.68
37.5	2,333,824	14,205	0.0061	0.9939	85.98
38.5	2,335,153	8,954	0.0038	0.9962	85.45

ACCOUNTS 304.20 AND 304.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

EXPERIENCE BAND 1981-2015

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AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	2,377,957	1,752	0.0007	0.9993	85.13
40.5	2,321,186	8,777	0.0038	0.9962	85.06
41.5	2,285,260	11,233	0.0049	0.9951	84.74
42.5	2,186,584	1,284	0.0006	0.9994	84.32
43.5	2,082,065	3,301	0.0016	0.9984	84.27
44.5	2,077,711	26,196	0.0126	0,9874	84.14
45.5	2,045,646	9,955	0.0049	0.9951	83.08
46.5	2,020,441	176,438	0.0873	0.9127	82.68
47.5	1,753,503	1,058	0.0006	0.9994	75.46
48.5	1,783,594	2,822	0.0016	0.9984	75.41
49.5	1,787,162	6,709	0.0038	0.9962	75.29
50.5	1,599,221	4,424	0.0028	0.9972	75,01
51.5	1,496,522	859	0.0006	0.9994	74.80
52.5	1,478,555	4,808	0.0033	0.9967	74.76
53.5	1,165,527	2,928	0.0025	0.9975	74.52
54.5	1,161,559	4,611	0.0040	0.9960	74.33
55.5	1,162,798	12,048	0.0104	0.9896	74.03
56.5	1,214,243	3,597	0.0030	0.9970	73.27
57.5	892,610	166	0.0002	0.9998	73.05
58.5	515,727		0.0000	1.0000	73.04
59.5	514,599		0.0000	1.0000	73.04
60.5	504,536		0.0000	1.0000	73.04
61.5	295,958	6,701	0.0226	0.9774	73.04
62.5	256,970	203	0.0008	0.9992	71.38
63.5	224,519	10,297	0.0459	0.9541	71.33
64.5	208,024	221	0.0011	0.9989	68.05
65.5	194,394		0.0000	1.0000	67.98
66.5	218,187		0.0000	1.0000	67.98
67.5	217,695		0.0000	1.0000	67.98
68.5	215,094		0.0000	1.0000	67.98
69.5	217,072	110	0.0005	0.9995	67.98
70.5	216,962		0.0000	1.0000	67.95
71.5	216,962	1,210	0.0056	0.9944	67.95
72.5	220,048	126	0.0006	0.9994	67.57
/3.5	210,188	124	0.0006	0.9994	67.53
74.5	209,786	635	0.0030	0.9970	67.49
75.5	208,946	172	0.0008	0.9992	67.29
76.5	191,079	141	0.0007	0.9993	67.23
/7.5	190,861	23,002	0.1205	0.8795	67.18
78.5	167,859		0.0000	1.0000	59.08

ACCOUNTS 304.20 AND 304.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
3 0 F					
/9.5	167,859		0.0000	1.0000	59.08
80.5	167,859		0.0000	1.0000	59.08
81.5	167,859		0.0000	1.0000	59.08
82.5	167,859	7,460	0.0444	0.9556	59.08
83.5	137,225		0.0000	1.0000	56.46
84.5	136,893		0.0000	1.0000	56.46
85.5	136,893		0.0000	1.0000	56.46
86.5	140,888		0.0000	1.0000	56.46
87.5	116,691		0.0000	1.0000	56.46
88.5	115,386		0.0000	1.0000	56.46
89.5	115,386		0.0000	1.0000	56.46
90.5	108,469		0.0000	1.0000	56.46
91.5	51,309		0.0000	1.0000	56.46
92.5	47,331		0.0000	1.0000	56,46
93.5	77,229	232	0.0030	0.9970	56.46
94.5	76,997		0.0000	1.0000	56.29
95.5	76,984		0.0000	1.0000	56.29
96.5	76,984		0.0000	1.0000	56 29
97.5	76,984		0.0000	1.0000	56 29
98.5	69,393		0.0000	1.0000	56.29
99.5	69.393		0 0000	1 0000	56 29
100.5	69,393		0.0000	1.0000	56 29
101.5	63,531		0.0000	1 0000	56 29
102.5	63.531		0.0000	1,0000	56 29
103.5	63,531		0 0000	1 0000	56.29
104.5	56,118		0 0000	1 0000	56 29
105.5	56 118		0.0000	1 0000	50.29
106.5	56 118		0.0000	1.0000	50.25
107 5	51 823		0.0000	1.0000	50.29
108.5	51,823		0.0000	1.0000	56.29
109 5	E1 600		0.0000	1 0000	
110 5	51,823		0.0000	1.0000	56.29
111 E	51,823		0.0000	1.0000	56.29
111.0	51,823		0.0000	1.0000	56.29
112 C	51,823		0.0000	1.0000	56.29
773'2 TT3'2	51,823		0.0000	1.0000	56.29
114.5	51,823		0.0000	1.0000	56.29
112.2	51,823		0.0000	1.0000	56.29
116.5	51,823		0.0000	1.0000	56.29
117.5	51,823		0.0000	1.0000	56.29
118.5	51,823		0.0000	1.0000	56.29

ACCOUNTS 304.20 AND 304.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

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EXPERIENCE BAND 1981-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
119.5	51,823		0.0000	1.0000	56.29
120.5	51,823		0.0000	1.0000	56.29
121.5	47,827		0.0000	1.0000	56.29
122.5	47,827		0.0000	1.0000	56.29
123.5	47,827		0.0000	1.0000	56.29
124.5	47,827		0.0000	1.0000	56.29
125.5	47,827		0.0000	1.0000	56.29
126.5	47,827		0.0000	1.0000	56.29
127.5	47,827		0.0000	1.0000	56.29
128.5	17,930		0.0000	1.0000	56.29
129.5	17,930		0.0000	1.0000	56.29
130.5	17,930		0.0000	1.0000	56.29
131.5	17,930		0.0000	1.0000	56.29
132.5	17,930		0.0000	1.0000	56.29
133.5	17,930		0.0000	1.0000	56.29
134.5	17,930		0.0000	1.0000	56.29
135.5	17,930		0.0000	1.0000	56.29
136.5					56.29

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ACCOUNT 304.40 STRUCTURES AND IMPROVEMENTS - TRANSMISSION AND DISTRIBUTION ORIGINAL AND SMOOTH SURVIVOR CURVES AQUA OHIO, INC.



ACCOUNT 304.40 STRUCTURES AND IMPROVEMENTS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE

PLACEMENT BAND 1952-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	2,010,977		0.0000	1.0000	100.00
0.5	1,965,044		0.0000	1.0000	100.00
1.5	1,938,635		0.0000	1.0000	100.00
2.5	1,922,860		0.0000	1.0000	100.00
3.5	2,027,487		0.0000	1.0000	100.00
4.5	1,999,373	10,090	0.0050	0.9950	100.00
5.5	1,996,187	2,605	0.0013	0.9987	99.50
6.5	1,888,955		0.0000	1.0000	99.37
7.5	1,860,554	6,903	0.0037	0.9963	99.37
8.5	1,776,274		0.0000	1.0000	99.00
9.5	1,670,191	3,918	0.0023	0.9977	99.00
10.5	1,602,573	5,203	0.0032	0.9968	98.76
11.5	1,507,019		0.0000	1.0000	98.44
12.5	1,242,382		0.0000	1.0000	98.44
13.5	1,143,402		0.0000	1.0000	98.44
14.5	671,569		0.0000	1.0000	98.44
15.5	625,837	2,557	0.0041	0.9959	98.44
10.5	617,619		0.0000	1.0000	98.04
1/.5	606,506		0.0000	1.0000	98.04
10.5	606,506	18,134	0.0299	0.9701	98.04
19.5	588,373	718	0.0012	0.9988	95.11
20.5	587,229	866	0.0015	0.9985	94.99
21.5	546,284		0.0000	1.0000	94.85
22.5	546,284		0.0000	1.0000	94.85
23.5	546,284		0.0000	1.0000	94.85
24.5	546,284		0.0000	1.0000	94.85
25.5	546,284		0.0000	1.0000	94.85
26.5	545,086		0.0000	1.0000	94.85
27.5	545,086		0.0000	1.0000	94.85
28.5	544,894		0.0000	1.0000	94.85
29.5	541,353	1,456	0.0027	0.9973	94.85
30.5	528,475	1,282	0.0024	0.9976	94.60
31.5	74,202		0.0000	1.0000	94.37
32.5	29,248		0.0000	1.0000	94.37
33.5	29,248		0.0000	1.0000	94.37
24.5 35 5	14,780		0.0000	1.0000	94.37
33.5 36 E	14,780		0.0000	1.0000	94.37
30.5 37 =	14,/8U		0.0000	1.0000	94.37
385	14,700		0.0000	1.0000	94.37
30.3	14,/80		0.0000	T.0000	94.37

ACCOUNT 304.40 STRUCTURES AND IMPROVEMENTS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1952-2015

EXPERIENCE BAND 1952-2015

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	14,780	778	0.0000	1.0000	94.37
40.5	14,780		0.0000	1.0000	94.37
41.5	14,780		0.0000	1.0000	94.37
42.5	14,780		0.0527	0.9473	94.37
43.5	14,002		0.0000	1.0000	89.40
44.5	14,002		0.0000	1.0000	89.40

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ACCOUNT 304.40 STRUCTURES AND IMPROVEMENTS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE

PLACEMENT BAND 1952-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	1,425,807		0.0000	1.0000	100.00
0.5	1,379,874		0.0000	1.0000	100.00
1.5	1,354,663		0.0000	1.0000	100.00
2.5	1,338,888		0.0000	1.0000	100.00
3.5	1,443,707		0.0000	1.0000	100.00
4.5	1,420,287		0.0000	1.0000	100.00
5.5	1,438,613		0.0000	1.0000	100.00
6.5	1,811,057		0.0000	1.0000	100.00
7.5	1,828,328	6,903	0.0038	0.9962	100.00
8.5	1,761,029		0.0000	1.0000	99.62
9.5	1,669,413	3,918	0.0023	0.9977	99.62
10.5	1,601,794	5,203	0.0032	0.9968	99.39
11.5	1,506,241		0.0000	1.0000	99.07
12.5	1,241,604		0.0000	1.0000	99.07
13.5	1,142,624		0.0000	1.0000	99.07
14.5	670,791		0.0000	1.0000	99.07
15.5	625,059	2,557	0.0041	0.9959	99.07
10.5	616,840		0.0000	1.0000	98.66
1/.5 30 E	605,728	10 104	0.0000	1.0000	98.66
10.J	605,728	18,134	0.0299	0.9701	98.66
19.5	587,594	718	0.0012	0.9988	95.71
20.5	586,451	866	0.0015	0.9985	95.59
21.5	545,505		0.0000	1.0000	95.45
22.5	545,505		0.0000	1.0000	95.45
23.5	545,505		0.0000	1.0000	95.45
24.5	545,505		0.0000	1.0000	95.45
25.5	545,505		0.0000	1.0000	95.45
26.5	544,307		0.0000	1.0000	95.45
27.5	544,307		0.0000	1.0000	95.45
28.5	544,116		0.0000	1.0000	95.45
29.5	540,575	1,456	0.0027	0.9973	95.45
30.5	527,696	1,282	0.0024	0.9976	95.19
31.5	73,424		0.0000	1.0000	94.96
32.5	28,469		0.0000	1.0000	94.96
33.5	28,469		0.0000	1.0000	94.96
34.5	14,002		0.0000	1.0000	94.96
35.5	14,002		0.0000	1.0000	94.96
36.5	14,002		0.0000	1.0000	94.96
37.5	14,002		0.0000	1.0000	94.96
38.5	14,780		0.0000	1.0000	94,96

ACCOUNT 304.40 STRUCTURES AND IMPROVEMENTS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1952-2015

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 40.5 41.5 42.5 43.5 44.5 45.5	14,780 14,780 14,780 14,780 14,780 14,002 14,002	778	0.0000 0.0000 0.0000 0.0527 0.0000 0.0000	1.0000 1.0000 1.0000 0.9473 1.0000 1.0000	94.96 94.96 94.96 94.96 89.96 89.96

AQUA OHIO, INC. ACCOUNT 304.61 STRUCTURES AND IMPROVEMENTS - GENERAL PLANT ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 304.61 STRUCTURES AND IMPROVEMENTS - GENERAL PLANT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1893-2015

AGE AT	EXPOSURES AT	RETIREMENTS			
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	CITD1/	PECIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATTO	PATTO	TNTEDIAL
			1411-20	1011 10	TNIEKVAU
0.0	7,007,396		0.0000	1.0000	100.00
0.5	7,041,753	13,994	0.0020	0.9980	100.00
1.5	6,913,249		0.0000	1.0000	99 80
2.5	6,766,763		0.0000	1.0000	99 80
3.5	6,141,095	2,317	0.0004	0.9996	99 97
4.5	4,633,610	2,985	0.0006	0.9994	99 76
5.5	4,035,413	467	0.0001	0,9999	99 70
6.5	4,028,629	615	0.0002	0 9998	99.70
7.5	3,984,270	31.020	0.0078	0.9999	22.03
8.5	3,818,946	1.277	0.0003	0.9922	27.07 69.60
0 5		-, -	0.0000	, , , , , , ,	30.90
9.5	2,952,738	9,671	0.0033	0.9967	98.86
10.0 11 c	2,790,770	17,576	0.0063	0.9937	98.54
10 5	2,619,304	5,286	0.0020	0.9980	97.92
12.5	2,563,147	20,363	0.0079	0.9921	97.72
13.5	2,537,802	1,938	0.0008	0.9992	96.95
14.5	2,499,881	396	0.0002	0.9998	96.87
15.5	2,498,960		0.0000	1.0000	96.86
16.5	2,501,571	2,929	0.0012	0.9988	96.86
17.5	2,497,756	231	0.0001	0.9999	96.74
18.5	2,505,282	4,578	0.0018	0.9982	96.73
19.5	2,046,360	17 689	0 0096	0 0014	~~ ~~
20.5	1,797,807	12 696	0.0000	0.9914	96.56
21.5	1,774,773	410	0.0071	0.9929	95.72
22.5	1,773,276	21 170	0.0002	0.9998	95.05
23.5	1,740,714	20 202	0.0176	0.9824	95.02
24.5	144.248	20,293	0.0163	0.9837	93.35
25.5	129 223	13,955	0.096/	0.9033	91.84
26.5	128 523	700	0.0054	0.9946	82.95
27.5	120,525	572	0.0045	0.9955	82.50
28.5	120,011 120,011		0.0000	1.0000	82.14
	120,430	720	0.0012	0.9988	82.14
29.5	128,274		0.0000	1.0000	82 04
30.5	126,958		0.0000	1.0000	82.04
31.5	126,233	398	0.0032	0.9968	92.04
32.5	125,835	1,772	0.0141	0.9859	81 79
33.5	124,063	360	0.0029	0 9971	80 C3
34.5	123,703		0.0000	1 0000	80.03
35.5	119,729		0.0000	1 0000	00.39 90 19
36.5	119,283	378	0.0032	1 9968	00.39
37.5	170,072	294	0 0017	0 9993	00.35
38.5	218,898	1.416	0 0065	0.9903	8V.14 80 00
	•		~	0.2233	00.00

ACCOUNT 304.61 STRUCTURES AND IMPROVEMENTS - GENERAL PLANT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2015

AGE AT	EXPOSURES AT	RETIREMENTS			זמנזס שרסט
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	STIRV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATTO	RATIO	TMPEDUNT
30 5				1011 20	TIVIDICVAD
39.5	217,482		0.0000	1,0000	79.48
40.5	217,482	60	0.0003	0.9997	79.48
41.5	167,599	1,173	0.0070	0.9930	79.46
42.5	166,426	2,402	0.0144	0.9856	78.90
43.5	164,024		0.0000	1.0000	77 76
44.5	163,056		0.0000	1.0000	77 76
45.5	163,056		0.0000	1.0000	77.76
46.5	163,056	391	0.0024	0.9976	77.70
47.5	162,666		0.0000	1 0000	77 50
48.5	162,666		0.0000	1.0000	77.58
49.5	162,666		0.0000	1 0000	77 50
50.5	162,503	9,497	0 0584	0.9416	77.50
51.5	104,631	2,869	0 0274	0.9410	77.58
52.5	101.762	2,009	0.02/3	0.9726	73.04
53.5	101.434	1 464	0.0032	0.9968	/1.04
54.5	99,971	T) 404	0.0144	0.9856	70.81
55.5	99,971		0.0000	1.0000	69.79
56.5	99,488		0.0000	1.0000	69.79
57.5	63,982		0.0000	1.0000	69.79
58.5	63 982		0.0000	1.0000	69.79
	03,902		0.0000	1.0000	69.79
59.5	63,982		0.0000	1.0000	69 79
60.5	63,982	193	0.0030	0.9970	69 79
61.5	63,789		0.0000	1.0000	69 58
62.5	63,050		0.0000	1.0000	69 58
63.5	62,948		0.0000	1 0000	69 59
64.5	62,948	43	0.0007	0 9993	60.00
65.5	62,906		0.0000	1 0000	09.90 60 ED
66.5	48,981		0.0000	1 0000	09.33 60 ED
67.5	48,981		0.0000	1 0000	69.53
68.5	48,981		0.0000	1.0000	69.53
69.5	25,515		0 0000	3 0000	
70.5	25,515	193	0.0000	1.0000	69.53
71.5	25.322		0.0078	0.9924	69.53
72.5	25.322		0.0000	1.0000	69.01
73.5	25,322		0.0000	1.0000	69.01
74.5	25 322	<u>^</u>	0.0000	1.0000	69.01
75.5	25 21/	8	0.0003	0.9997	69.01
76.5	20,014 DE 31/		0.0000	1.0000	68.99
77.5	2J,J14 75 314		0.0000	1.0000	68.99
78 5	40,314 07 CAR		0.0000	1.0000	68.99
	23,645		0.0000	1.0000	68.99

ACCOUNT 304.61 STRUCTURES AND IMPROVEMENTS - GENERAL PLANT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2015

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	23,645		0.0000	1.0000	68.99
80.5	23,645		0.0000	1.0000	68.99
81.5	23,645		0.0000	1.0000	68.99
82.5	23,645		0.0000	1.0000	68.99
83.5	23,645		0.0000	1.0000	68.99
84.5	23,645		0.0000	1.0000	68.99
85.5	23,441		0.0000	1.0000	68.99
86.5	23,441		0.0000	1.0000	68.99
87.5	23,441		0.0000	1.0000	68.99
88.5	23,441	3,680	0.1570	0.8430	68.99
89.5	19,761		0.0000	1.0000	58.16
90.5	3,142		0.0000	1.0000	58.16
91.5	3,142		0.0000	1.0000	58.16
92.5	3,142		0.0000	1.0000	58.16
93.5	3,142		0.0000	1.0000	58.16
94.5	3,142		0.0000	1.0000	58.16
95.5	3,142		0.0000	1.0000	58.16
96.5	3,142		0.0000	1.0000	58,16
97.5	2,830		0.0000	1.0000	58.16
98.5	2,830		0.0000	1.0000	58.16
99.5	913		0.0000	1.0000	58.16
100.5	913		0.0000	1.0000	58.16
101.5	907		0.0000	1.0000	58.16
102.5	907		0.0000	1.0000	58.16
103.5					58.16

ACCOUNT 304.61 STRUCTURES AND IMPROVEMENTS - GENERAL PLANT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1893-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	6,840,682		0.0000	1.0000	100.00
0.5	6,885,573	13,994	0.0020	0.9980	100.00
1.5	6,769,729		0.0000	1.0000	99.80
2.5	6,623,242		0.0000	1.0000	99.80
3.5	5,997,575	2,317	0.0004	0.9996	99.80
4.5	4,490,090	2,985	0.0007	0.9993	99.76
5.5	3,891,893	467	0.0001	0.9999	99.69
6.5	3,885,109	615	0.0002	0.9998	99.68
7.5	3,840,750	31,020	0.0081	0.9919	99.66
8.5	3,675,824	1,277	0.0003	0.9997	98.86
9.5	2,811,387	9,671	0.0034	0.9966	98.82
10.5	2,649,419	17,576	0.0066	0.9934	98,48
11.5	2,477,953	5,286	0.0021	0.9979	97.83
12.5	2,421,797	20,363	0.0084	0.9916	97.62
13.5	2,396,821	1,938	0.0008	0.9992	96.80
14.5	2,359,195	396	0.0002	0.9998	96.72
15.5	2,359,852		0.0000	1.0000	96.71
16.5	2,362,463	2,929	0.0012	0.9988	96.71
17.5	2,358,648	231	0.0001	0.9999	96.59
18.5	2,383,267	4,578	0.0019	0.9981	96.58
19.5	1,924,346	17,689	0.0092	0.9908	96.39
20.5	1,676,188	12,696	0.0076	0.9924	95.51
21.5	1,654,606	410	0.0002	0.9998	94.78
22.5	1,694,525	31,172	0.0184	0.9816	94.76
23.5	1,661,963	28,293	0.0170	0.9830	93.02
24.5	65,497	13,955	0.2131	0.7869	91.43
25.5	50,472	700	0.0139	0.9861	71.95
26.5	49,772	572	0.0115	0.9885	70.95
27.5	58,861		0.0000	1.0000	70.14
28.5	58,782	156	0.0027	0.9973	70.14
29.5	58,954		0.0000	1.0000	69.95
30.5	59,101		0.0000	1.0000	69.95
31.5	75,940	398	0.0052	0.9948	69.95
32.5	75,542	1,772	0.0235	0.9765	69.59
33.5	73,770	360	0.0049	0.9951	67.95
34.5	97,114		0.0000	1.0000	67.62
35.5	93,140		0.0000	1.0000	67.62
36.5	92,694	378	0.0041	0.9959	67.62
37.5	143,676	294	0.0020	0.9980	67.35
38.5	192,502	1,416	0.0074	0.9926	67.21

ACCOUNT 304.61 STRUCTURES AND IMPROVEMENTS - GENERAL PLANT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
20 5	101 006		0 0000	1 0000	66 71
39.5	191,000	60	0.0000	1.0000	66.71
40.5	141 202	טם רפר ר	0.0003	0.9997	60.71
41.5	141,203	1,1/3	0.0083	0.991/	66.09
42.5	140,030	2,402	0.01/2	0.9828	66.14
43.5	139,297		0.0000	1.0000	65.00
44.5	138,329		0.0000	1.0000	65.00
45.5	138,329	2.0.1	0.0000	1.0000	65.00
46.5	138,329	165	0.0028	0.9972	65.00
47.5	138,131		0.0000	1.0000	64.82
48.5	138,131		0.0000	1.0000	64.82
49.5	138,970		0.0000	1.0000	64.82
50.5	139,012	9,497	0.0683	0,9317	64.82
51.5	81,148	2,869	0.0354	0.9646	60.39
52.5	78,279	328	0.0042	0.9958	58.26
53.5	77,951	1,464	0.0188	0.9812	58.01
54.5	76,488		0.0000	1.0000	56.92
55.5	93,150		0.0000	1.0000	56,92
56.5	92,667		0.0000	1.0000	56.92
57.5	57,161		0.0000	1.0000	56.92
58.5	57,161		0.0000	1.0000	56.92
59.5	57,161		0.0000	1.0000	56.92
60.5	57,161	193	0.0034	0.9966	56.92
61.5	56,968		0.0000	1.0000	56.73
62.5	56,541		0.0000	1.0000	56.73
63.5	56,439		0.0000	1.0000	56.73
64.5	58,356	43	0.0007	0.9993	56.73
65.5	58,314		0.0000	1.0000	56.69
66.5	44,394		0.0000	1.0000	56.69
67.5	44,394		0.0000	1.0000	56.69
68.5	45,301		0.0000	1.0000	56.69
69.5	21,835		0.0000	1.0000	56.69
70.5	21,835	193	0.0088	0.9912	56.69
71.5	21,643		0.0000	1.0000	56.19
72.5	21,643		0.0000	1,0000	56,19
73.5	21,643		0.0000	1.0000	56.19
74.5	21,643	8	0.0004	0.9996	56.19
75.5	21,635		0.0000	1.0000	56.17
76.5	21,635		0.0000	1.0000	56.17
77.5	21,635	,	0.0000	1.0000	56.17
78.5	19,966		0.0000	1.0000	56.17

ACCOUNT 304.61 STRUCTURES AND IMPROVEMENTS - GENERAL PLANT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2015

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	19 966		0 0000	1 0000	EC 17
20 5	19 966		0.0000	1.0000	50.17
01 5	19,900		0.0000	1.0000	56.17
87 5	19,900		0.0000	1.0000	50.17 EC 17
02.5 93 5	19,900		0.0000	1.0000	50.17
03.5 P/ E	10 000		0.0000	1.0000	50.17
04.J 05 5	10 761		0.0000	1.0000	56.17
85.5	19,701		0.0000	1.0000	56.17
80.5	TA' 19		0.0000	1.0000	56.17
87.5	23,441		0.0000	1.0000	56.17
88.5	23,441	3,680	0.1570	0.8430	56.17
89.5	19,761		0.0000	1.0000	47.35
90.5	3,142		0.0000	1.0000	47.35
91.5	3,142		0.0000	1.0000	47.35
92.5	3,142		0.0000	1.0000	47.35
93.5	3,142		0.0000	1.0000	47.35
94.5	3,142		0.0000	1.0000	47.35
95.5	3,142		0.0000	1.0000	47.35
96.5	3,142		0.0000	1.0000	47.35
97.5	2,830		0.0000	1.0000	47.35
98.5	2,830		0.0000	1.0000	47.35
99.5	913		0.0000	1.0000	47.35
100.5	913		0.0000	1.0000	47.35
101.5	907		0.0000	1.0000	47.35
102.5	907		0.0000	1.0000	47.35
103.5					47.35

AQUA OHIO, INC. ACCOUNT 304.63 STRUCTURES AND IMPROVEMENTS - LEASEHOLD IMPROVEMENTS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 304.63 STRUCTURES AND IMPROVEMENTS - LEASEHOLD IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1981-2014

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0 0	1 300 011				
0.0	1,379,711	9,316	0,0068	0.9932	100.00
0.5	1,374,474		0.0000	1.0000	99.32
1.5	1,369,182	413	0.0003	0.9997	99.32
2.5	1,368,770		0.0000	1.0000	99.29
4.5	1,368,770		0.0000	1.0000	99.29
4.5	1,369,809	3,445	0.0025	0.9975	99.29
5.5	1,355,480	693	0.0005	0.9995	99.05
6.5	1,349,426	780	0.0006	0.9994	98.99
7.5	1,346,409	886	0.0007	0.9993	98.94
8.5	1,345,523	24,157	0.0180	0.9820	98.87
9.5	1,283,234	13,524	0.0105	0.9895	97.10
10.5	1,210,443	1,060	0.0009	0.9991	96.07
11.5	1,201,913	6,229	0.0052	0.9948	95.99
12.5	1,173,639	54,185	0.0462	0.9538	95.49
13.5	1,097,410	32,536	0.0296	0.9704	91.08
14.5	1,064,874	17,734	0.0167	0.9833	88.38
15.5	1,047,141	16,878	0.0161	0.9839	86.91
16.5	1,027,778	1,069	0.0010	0.9990	85.51
17.5	1,018,317	10,389	0.0102	0.9898	85.42
18.5	959,501	1,897	0.0020	0.9980	84.55
19.5	921,528	34,948	0.0379	0.9621	84 38
20.5	884,472	580	0.0007	0.9993	81.18
21.5	878,115		0.0000	1.0000	81 13
22.5	798,291		0.0000	1.0000	81 13
23.5	788,747	23.513	0.0298	0.9702	81 13
24.5	760,486	9,478	0.0125	0 9875	78 71
25.5	359,611	5,871	0.0163	0 9837	70.71
26.5	32,591	-,	0.0000	1 0000	76 46
27.5	29,056	1.617	0 0556	0 9444	76.46
28.5	26,035		0.0000	1.0000	72.21
29.5	24 255		0 0000	1 0000	70.03
30.5	27/200		0.0000	1.0000	72,21
31 5	20,221		0.0000	1.0000	72.21
32 5	40,321 16 330		0.0000	1.0000	72.21
17 S	T0,220		0.0000	T.0000	72.21
22.2					72.21

ACCOUNT 304.70 STRUCTURES AND IMPROVEMENTS - STORES, SHOP AND GARAGE ORIGINAL AND SMOOTH SURVIVOR CURVES AQUA OHIO, INC.



ACCOUNT 304.70 STRUCTURES AND IMPROVEMENTS - STORES, SHOP AND GARAGE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1966-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	1,187,420		0.0000	1.0000	100.00
0.5	54,096		0.0000	1.0000	100.00
1.5	54,096		0.0000	1.0000	100.00
2.5	54,096		0.0000	1.0000	100.00
3.5	49,884		0.0000	1.0000	100.00
4.5	37,498	25	0.0007	0.9993	100.00
5.5	38,465		0.0000	1.0000	99.93
б.5	39,711		0.0000	1.0000	99.93
7.5	40,690		0.0000	1.0000	99.93
8.5	31,610		0.0000	1.0000	99.93
9.5	31,610	1,474	0.0466	0.9534	99.93
10.5	30,730	7,114	0.2315	0.7685	95.27
11.5	18,412	4,068	0.2209	0.7791	73.22
12.5	24,039		0.0000	1.0000	57.04
13.5	23,096		0.0000	1.0000	57.04
14.5	23,096		0.0000	1.0000	57.04
15.5	10,545		0.0000	1.0000	57.04
10.5	8,098		0.0000	1.0000	57.04
10 5	6,923 C 000		0.0000	1.0000	57.04
10.0	0,923		0.0000	1.0000	57.04
19.5	6,923		0.0000	1.0000	57.04
20.5	6,923		0.0000	1.0000	57.04
21.5	6,923		0.0000	1.0000	57.04
22.5	10,061		0.0000	1.0000	57.04
23.5	10,061		0.0000	1.0000	57.04
24.5	4,787	3,138	0.6556	0.3444	57.04
25.5	594		0.0000	1.0000	19.65
20.5	7,165		0.0000	1.0000	19.65
27.5	8,201	7 4 4 77	0.0000	1.0000	19.65
20.5	8,201	3,44/	0.4203	0.5797	19.65
29.5	4,797		0.0000	1.0000	11.39
30.5	52,758	100	0.0019	0.9981	11.39
31.5	52,657		0.0000	1.0000	11.37
32.5	52,657		0.0000	1.0000	11.37
33.5	52,657		0.0000	1.0000	11.37
34.5 75 5	52,657	3,000	0.0570	0.9430	11.37
35.5	49,657		0.0000	1.0000	10.72
30.5	49,657		0.0000	1.0000	10.72
37.5 30 E	49,65/		0.0000	1.0000	10.72
JO.D	49,657		0.0000	T.0000	10.72

ACCOUNT 304.70 STRUCTURES AND IMPROVEMENTS - STORES, SHOP AND GARAGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1966-2015

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	49,657		0.0000	1.0000	10.72
40.5	49,657	24,837	0.5002	0.4998	10.72
41.5	24,820	199	0.0080	0.9920	5.36
42.5	24,621		0.0000	1.0000	5.31
43.5	24,621		0.0000	1.0000	5.31
44.5	24,621	1,165	0.0473	0.9527	5.31
45.5	20,432		0.0000	1.0000	5.06
46.5	19,396	609	0.0314	0.9686	5.06
47.5	18,787		0.0000	1.0000	4.90
48.5	18,150		0.0000	1.0000	4.90
49.5					4.90

AQUA OHIO, INC. ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1915-2015

AGE AT	EXPOSURES AT	RETIREMENTS			
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	CIIDU	PCI SURV
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	BURV	BEGIN OF
				NALIO.	INTERVAL
0.0	6,608,351		0.0000	1.0000	100.00
0.5	6,492,370		0.0000	1.0000	100 00
1.5	6,484,125	48,000	0.0074	0,9926	100 00
2.5	6,436,125	42,339	0.0066	0.9934	99.00
3.5	6,343,797		0.0000	1.0000	90 C1
4.5	6,324,689		0.0000	1 0000	20.01
5.5	6,323,540		0.0000	1 0000	20.01
6.5	6,293,576	318.884	0 0507	1.0000	98.61 00 c1
7.5	5,904,779	,+	0.0000	1 0000	98.61
8.5	4,885,086	11.797	0.0000	1.0000	93.61
<u> </u>			0.0024	0.9976	93.61
9.5	4,577,946		0.0000	1.0000	93.38
10.5	3,608,955	43,772	0.0121	0.9879	93.38
11.5	3,565,183	637	0.0002	0.9998	92.25
12.5	3,564,547	7,454	0.0021	0.9979	92 24
13.5	3,528,601	5,434	0.0015	0.9985	92 04
14.5	3,523,167	12,928	0.0037	0.9963	91 QA
15.5	3,509,723	10,855	0.0031	0 9969	91 EC
16.5	3,498,868	•	0.0000	1 0000	91.90
17.5	3,498,868	23.262	0 0066	0 9934	91.28
18.5	3,475,606		0 0000	1 0000	91.28
30 C			0.0000	1.0000	90.67
19.5	3,374,844		0.0000	1.0000	90.67
20.5	3,318,338	92,971	0.0280	0.9720	90.67
21.5	3,225,367		0.0000	1.0000	88.13
22.5	3,224,825		0.0000	1.0000	88.13
23.5	3,026,517		0.0000	1.0000	88 13
24.5	3,026,155		0.0000	1,0000	88 13
25.5	3,026,155		0.0000	1.0000	88 13
26.5	3,026,155	13,419	0.0044	0 9956	90.13
27.5	3,012,736		0.0000	1 0000	00.13
28.5	3,012,736	40,867	0.0136	0 9864	87.74 97 74
20 E		•		0.0004	07.74
29.9	2,715,269	216	0.0001	0.9999	86.55
30.5	2,715,053	200	0.0001	0.9999	86.55
31.5	2,711,713		0.0000	1.0000	86.54
32.5	2,711,713	13,203	0.0049	0.9951	86,54
33.5	2,436,004	4,636	0.0019	0.9981	86.12
34.5	2,417,958		0.0000	1.0000	85.95
35.5	2,414,534	2,851	0.0012	0.9988	85.95
36.5	2,392,197		0.0000	1.0000	85 85
37.5	2,392,197		0.0000	1.0000	85 85
38.5	2,368,935		0.0000	1.0000	85 85
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ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	2 368 935		0 0000	1 0000	
40.5	2,368,935		0.0000	1.0000	00.00
41.5	2,368,935	8 609	0.0000	1.0000	85.85
42.5	2,360,326	44 376	0.0038	0.9964	85.85
43.5	2 315 950	44,570	0.0100	1 0000	85.54
44.5	2 315 950	7 150	0.0000	1.0000	83.93
45.5	2,308,800	7,100	0.0031	3 0000	83.93
46.5	2,305,000		0.0000	1.0000	83.67
47.5	2,305,468		0.0000	1.0000	83.67
48 5	2,305,468	300	0.0000	T.0000	83.67
1010	2,303,400	500	0.0001	0.9999	83.67
49.5	2,305,168		0.0000	1.0000	83.66
50.5	2,305,168	184	0.0001	0.9999	83.66
51.5	2,304,984		0.0000	1.0000	83.66
52.5	2,304,984		0.0000	1.0000	83.66
53.5	2,304,984		0.0000	1.0000	83.66
54.5	2,301,109		0.0000	1.0000	83.66
55.5	2,297,326		0.0000	1.0000	83.66
56.5	2,296,976		0.0000	1.0000	83.66
57.5	2,288,328		0.0000	1.0000	83.66
58.5	2,288,328	3,051	0.0013	0.9987	83.66
59.5	2,285,277		0.0000	1.0000	83.54
60.5	2,285,277		0.0000	1.0000	83.54
61.5	2,279,937		0.0000	1.0000	83.54
62.5	2,270,982		0.0000	1.0000	83.54
63.5	2,226,606		0.0000	1.0000	83.54
64.5	2,191,535		0.0000	1.0000	83.54
65.5	2,191,535	150	0.0001	0.9999	83.54
66.5	1,609,577		0.0000	1.0000	83.54
67.5	469,988		0.0000	1.0000	83.54
68.5	469,988		0.0000	1.0000	83.54
69.5	469,988		0.0000	1.0000	83.54
70.5	469,988		0.0000	1.0000	83.54
71.5	469,988		0.0000	1.0000	83.54
72.5	469,421		0.0000	1.0000	83.54
73.5	469,421		0.0000	1.0000	83.54
74.5	469,421		0.0000	1.0000	83.54
75.5	469,421	32	0.0001	0.9999	83.54
76.5	469,389		0.0000	1.0000	83.53
77.5	469,389		0.0000	1.0000	83.53
78.5	465,879	1,331	0.0029	0.9971	83.53
ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2015

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 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5	464,547 464,547 464,547 464,547 420,018 158,741 158,741 30,461 30,461	44,529 254,662	0.0000 0.0000 0.0959 0.6063 0.0000 0.0000 0.0000	1.0000 1.0000 0.9041 0.3937 1.0000 1.0000 1.0000	83.29 83.29 83.29 83.29 75.31 29.65 29.65 29.65
88.5	30,365		0.0000	1.0000	29.65 29.65
89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5 98.5	30,217 30,062 30,062 30,062 30,062 30,062 30,062 29,895 28,979 24,835		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	29.65 29.65 29.65 29.65 29.65 29.65 29.65 29.65 29.65 29.65
99.5 100.5	1,037		0.0000	1.0000	29.65 29.65

AQUA OHIO, INC. ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE

EXPERIENCE BAND 1957-2015

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	2,838,504		0.0000	1.0000	100.00
0.5	2,804,304	11,950	0.0043	0.9957	100.00
1.5	2,790,696		0.0000	1.0000	99.57
2.5	2,774,964		0.0000	1.0000	99.57
3.5	2,798,329		0.0000	1.0000	99.57
4.5	2,894,878		0.0000	1.0000	99.57
5.5	2,894,878	2,158	0.0007	0.9993	99.57
6.5	2,892,720	3,554	0.0012	0.9988	99.50
7.5	2,810,892	8,918	0.0032	0.9968	99.38
8.5	2,759,892		0.0000	1.0000	99.06
9.5	2,639,169		0.0000	1.0000	99.06
10.5	2,617,749	32,423	0.0124	0.9876	99.06
11.5	2,563,759	26,155	0.0102	0.9898	97.84
12.5	2,537,604		0.0000	1.0000	96.84
13.5	2,537,604		0.0000	1.0000	96.84
14.5	2,537,736		0.0000	1.0000	96.84
15.5	2,529,911		0.0000	1.0000	96.84
16.5	2,341,235		0.0000	1.0000	96.84
17.5	1,927,444		0.0000	1.0000	96.84
18.5	1,926,847	74	0.0000	1.0000	96.84
19.5	1,886,701		0.0000	1.0000	96.83
20.5	1,865,863	157	0.0001	0.9999	96.83
21.5	1,865,705	13,449	0.0072	0.9928	96.83
22.5	1,852,257		0.0000	1.0000	96.13
23.5	1,817,293		0.0000	1.0000	96.13
24.5	1,815,870		0.0000	1.0000	96.13
25.5	1,807,807		0.0000	1.0000	96.13
20.5	1,807,807	350	0.0000	1.0000	96.13
27.5	1,794,980	350	0.0002	0.9998	96.13
20.5	1,///,200		0.0000	1.0000	96.11
29.5	1,777,266	6,816	0.0038	0.9962	96.11
30.5	1,755,827		0.0000	1.0000	95.74
31.5	1,755,827	1,111	0.0006	0.9994	95.74
34.5 77 E	1,/45,566	251	0.0001	0.9999	95.68
33.5 34 E	1,744,823		0.0000	1.0000	95.67
94.5 95 E	1,744,823		0.0000	1.0000	95.67
33.3 36 E	1,/43,80/ 1 777 1/1		0.0000	1.0000	95.67
20.2 27 E	エ,/3/,141 1 725 137		0.0000	T.0000	95.67
30 E	1,/32,13/ 1 710 BOE		0.0000	1.0000	95.67
ີ້ພະ	T' (TA' 202		0.0000	T.0000	95.67

PLACEMENT BAND 1897-2015

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1897-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	1,710,985		0.0000	1.0000	95.67
40.5	1,509,467		0.0000	1.0000	95.67
41.5	1,509,467		0.0000	1.0000	95.67
42.5	1,507,710	855	0.0006	0.9994	95.67
43.5	1,506,855	3,400	0.0023	0.9977	95.61
44.5	1,503,455	32,708	0.0218	0.9782	95.40
45.5	1,470,748	170,534	0.1160	0.8840	93.32
46.5	1,300,213		0.0000	1.0000	82.50
47.5	1,300,213	3,124	0.0024	0.9976	82.50
48.5	1,300,839		0.0000	1.0000	82.30
49.5	1,261,557	3,395	0.0027	0.9973	82.30
50.5	1,152,815		0.0000	1.0000	82.08
51.5	1,152,815		0.0000	1.0000	82.08
52.5	1,152,815		0.0000	1.0000	82.08
53.5	1,152,815		0.0000	1.0000	82.08
54.5	1,152,815		0.0000	1.0000	82.08
55.5	1,152,815	526	0.0005	0.9995	82.08
56.5	1,094,662		0.0000	1.0000	82.04
57.5	1,094,662		0.0000	1.0000	82.04
58.5	173,508		0.0000	1.0000	82.04
59.5	253,987		0.0000	1.0000	82.04
60.5	253,987	1	0.0000	1.0000	82.04
61.5	253,987	3,871	0.0152	0.9848	82.04
62.5	250,115		0.0000	1.0000	80.79
63.5	130,115		0.0000	1.0000	80.79
64.5	130,115		0.0000	1.0000	80.79
65.5	130,115		0.0000	1.0000	80.79
66.5	130,115		0.0000	1.0000	80.79
67.5	130,115		0.0000	1.0000	80.79
68.5	130,115		0.0000	1.0000	80.79
69.5	130,115	2,523	0.0194	0.9806	80.79
70.5	127,592		0.0000	1.0000	79.23
71.5	127,592		0.0000	1.0000	79.23
72.5	127,592		0.0000	1.0000	79.23
73.5	127,592		0.0000	1.0000	79.23
74.5	127,592		0.0000	1.0000	79.23
75.5	127,592		0.0000	1.0000	79.23
76.5	127,592		0.0000	1.0000	79.23
77.5	127,592		0.0000	1.0000	79.23
78.5	127,592		0.0000	1.0000	79.23

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1897-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	127,592		0.0000	1.0000	79.23
80.5	127,592	143	0.0011	0.9989	79.23
81.5	127,449		0.0000	1.0000	79.14
82.5	127,449		0.0000	1.0000	79.14
83.5	127,449		0.0000	1.0000	79.14
84.5	127,449		0.0000	1.0000	79.14
85.5	127,449		0.0000	1.0000	79.14
86.5	127,449		0.0000	1.0000	79.14
87.5	84,288		0.0000	1.0000	79.14
88.5	84,288		0.0000	1.0000	79.14
89.5	84,288	3,750	0.0445	0.9555	79.14
90.5	80,538		0.0000	1.0000	75,62
91.5	80,538		0.0000	1.0000	75.62
92.5	80,538		0.0000	1.0000	75.62
93.5	80,538		0.0000	1.0000	75.62
94.5	80,538		0.0000	1.0000	75.62
95.5	80,538		0.0000	1.0000	75.62
96.5	80,538		0.0000	1.0000	75.62
97.5	80,538		0.0000	1.0000	75.62
98.5	80,538		0.0000	1.0000	75.62
99.5	80,538		0.0000	1.0000	75.62
100.5	80,538		0.0000	1.0000	75.62
101.5	80,538		0.0000	1.0000	75.62
102.5	80,538		0.0000	1.0000	75.62
103.5	80,538		0.0000	1.0000	75.62
104.5	80,538		0.0000	1.0000	75.62
105.5	80,538		0.0000	1.0000	75.62
106.5	80,538		0.0000	1.0000	75.62
107.5	80,538		0.0000	1.0000	75.62
108.5	80,538		0.0000	1.0000	75.62
109.5	80,538		0.0000	1.0000	75.62
110.5	80,538		0.0000	1.0000	75.62
111.5	80,538		0.0000	1.0000	75.62
112.5	80,538		0.0000	1.0000	75.62
113.5	80,538		0.0000	1.0000	75.62
114.5 115 5	80,538		0.0000	1.0000	75.62
116 5	80,538		0.0000	1.0000	75.62
117 E	80,538 80 E30		0.0000	1.0000	75.62
110 m	80,538		0.0000	1.0000	75.62
TT0.2					75.62

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1897-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	1,328,258		0.0000	1.0000	100.00
0.5	1,310,062	11,950	0.0091	0.9909	100.00
1.5	1,296,455		0.0000	1.0000	99.09
2.5	1,293,550		0.0000	1.0000	99.09
3.5	1,347,748		0.0000	1.0000	99.09
4.5	1,153,764		0.0000	1.0000	99.09
5.5	1,168,386	2,158	0.0018	0.9982	99.09
6.5	1,166,228	3,554	0.0030	0.9970	98,90
7.5	1,093,551	8,918	0.0082	0.9918	98.60
8.5	1,043,200		0.0000	1.0000	97.80
9.5	935,926		0.0000	1.0000	97.80
10.5	915,522	32,423	0.0354	0.9646	97.80
11.5	868,197	26,155	0.0301	0.9699	94.34
12.5	847,047		0.0000	1.0000	91.49
13.5	868,198		0.0000	1.0000	91.49
14.5	868,198		0.0000	1.0000	91.49
15.5	1,061,891		0.0000	1.0000	91.49
16.5	874,326		0.0000	1.0000	91.49
17.5	462,292		0.0000	1.0000	91.49
18.5	461,694		0.0000	1.0000	91.49
19.5	425,023		0.0000	1.0000	91.49
20.5	400,313	157	0.0004	0.9996	91.49
21.5	400,156	13,449	0.0336	0.9664	91.46
22.5	386,707		0.0000	1.0000	88.38
23.5	351,744		0.0000	1.0000	88.38
24.5	389,602		0.0000	1.0000	88.38
25.5	490,171		0.0000	1.0000	88.38
26.5	490,171		0.0000	1.0000	88.38
27.5	477,344	350	0.0007	0.9993	88.38
28.5	413,802		0.0000	1.0000	88.32
29.5	413,802		0.0000	1.0000	88.32
30.5	399,179		0.0000	1.0000	88.32
31.5	457,462	1,111	0.0024	0.9976	88.32
32.5	447,200		0.0000	1.0000	88.10
33.5	1,371,691		0.0000	1.0000	88.10
34.5 DE E	1,371,750		0.0000	1.0000	88.10
35.5	1,370,734		0.0000	1.0000	88.10
30.5	1,364,068		0.0000	1.0000	88.10
3/.5	1,391,771		0.0000	1.0000	88.10
38.5	1,661,154		0.0000	1.0000	88.10

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1897-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	1 661 154		0 0000	1 0000	00 10
40 5	1 459 636		0.0000	1.0000	88.10
41 5	1 459 636		0.0000	1.0000	88.10
42 5	1 457 079	0.0	0.0000	1.0000	88.10
43 5	1 457 024		0.0006	0.99994	88.10
44 5	1 453 604	3,400	0.0023	0.9977	88.05
45 5	1 420 016	170 524	0.0225	0.9775	87.85
46 5	1 250 292	1/0,034	0.1200	0.8800	85.87
47 5	1 250 202	2 104	0.0000	1.0000	75.56
48 5	1 247 30,382 1 247 100	3,124	0.0025	0.9975	75.56
40.5	1,247,390		0.0000	1.0000	75.38
49.5	1,208,108	3,395	0.0028	0.9972	75.38
50.5	I,099,366		0.0000	1.0000	75.16
51.5	1,099,366		0.0000	1.0000	75.16
52.5	1,099,366		0.0000	1.0000	75.16
53.5	1,099,366		0.0000	1.0000	75.16
54.5	1,103,238		0.0000	1.0000	75.16
55.5	1,103,238	526	0.0005	0.9995	75.16
56.5	1,045,085		0.0000	1.0000	75.13
57.5	1,045,085		0.0000	1.0000	75.13
58.5	123,930		0.0000	1.0000	75.13
59.5	123,871		0.0000	1.0000	75.13
60.5	123,871		0.0000	1.0000	75.13
61.5	123,871	3,871	0.0313	0.9687	75.13
62.5	165,828		0.0000	1.0000	72.78
63.5	45,828		0.0000	1.0000	72.78
64.5	45,828		0.0000	1.0000	72.78
65.5	45,828		0.0000	1.0000	72,78
66.5	45,828		0.0000	1.0000	72.78
67.5	45,828		0.0000	1.0000	72.78
68,5	45,828		0.0000	1.0000	72.78
69.5	45,828	2,523	0.0551	0.9449	72.78
70.5	43,304		0.0000	1.0000	68.77
71.5	43,304		0.0000	1.0000	68.77
72.5	43,304		0.0000	1.0000	68 77
73.5	43,304		0.0000	1.0000	68 77
74.5	43,304		0.0000	1.0000	68 77
75.5	43,304		0.0000	1.0000	68 77
76.5	43.304		0.0000	1.0000	68 77
77.5	43.304		0 0000	1 0000	60.77 60.77
78.5	43.304		0 0000	1 0000	60.77
·			0.0000	T.0000	00.//

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1897-2015

EXPERIENCE	BAND	1991-2015
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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 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5 88.5	43,304 43,304 43,162 46,911 46,911 46,911 46,911 3,750	143	0.0000 0.0033 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.9967 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	68.77 68.55 68.55 68.55 68.55 68.55 68.55 68.55 68.55 68.55
89.5 90.5 91.5	3,750	3,750	1.0000	1.0000	68.55 68.55
93.5 94.5 95.5 96.5 97.5 98.5	80,538 80,538 80,538 80,538 80,538 80,538		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000		
99.5 100.5 101.5 102.5 103.5 104.5 105.5 106.5 107.5 108.5	80,538 80,538 80,538 80,538 80,538 80,538 80,538 80,538 80,538 80,538 80,538		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000		
109.5 110.5 111.5 112.5 113.5 114.5 115.5 116.5 117.5 118.5	80,538 80,538 80,538 80,538 80,538 80,538 80,538 80,538 80,538		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000		

AQUA OHIO, INC. ACCOUNT 307 WELLS AND SPRINGS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1923-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	4,879,436	550	0.0001	0.9999	100.00
0.5	4,576,010		0.0000	1.0000	99,99
1.5	4,462,963	4,009	0.0009	0.9991	99.99
2.5	4,260,902	13,766	0.0032	0.9968	99,90
3.5	4,365,933	35,969	0.0082	0.9918	99.58
4.5	4,317,557	19,871	0.0046	0.9954	98.76
5.5	4,230,588	28,118	0.0066	0.9934	98.30
6.5	3,999,289	41,588	0.0104	0.9896	97.65
7.5	3,700,823	10,119	0.0027	0.9973	96.63
8.5	3,413,290	8,071	0.0024	0.9976	96.37
9.5	2,987,100	63,351	0.0212	0.9788	96.14
10.5	2,568,384	4,002	0.0016	0.9984	94.10
11.5	2,434,685	111	0.0000	1.0000	93.95
12.5	2,084,023	27,930	0.0134	0.9866	93.95
13.5	1,998,172	12,141	0.0061	0.9939	92.69
14.5	1,914,141	26,170	0.0137	0.9863	92.13
15.5	1,625,384	4,998	0.0031	0.9969	90.87
16.5	1,538,874	4,586	0.0030	0.9970	90.59
17.5	1,240,339	601	0.0005	0.9995	90.32
18.5	1,114,939	17,131	0.0154	0.9846	90.28
19.5	847,204	3,801	0.0045	0.9955	88.89
20.5	812,843		0.0000	1.0000	88.49
21.5	774,311	21,823	0.0282	0.9718	88.49
22.5	767,743		0.0000	1.0000	86.00
23.5	770,273	4,267	0.0055	0.9945	86.00
24.5	700,991		0.0000	1.0000	85.52
25.5	689,679		0.0000	1.0000	85.52
26.5	689,009	13,204	0.0192	0.9808	85.52
27.5	591,402		0.0000	1.0000	83.88
28.5	476,679	14,883	0.0312	0.9688	83.88
29.5	414,981	7,354	0.0177	0.9823	81.26
30.5	380,592	8,580	0.0225	0.9775	79.82
31.5	292,954	1,751	0.0060	0.9940	78.02
32.5	291,191	3,931	0.0135	0.9865	77.56
33.5	271,394		0.0000	1.0000	76.51
34.5	270,882	25,173	0.0929	0.9071	76.51
35.5	267,260	958	0.0036	0.9964	69.40
36.5	249,968	26,265	0.1051	0.8949	69.15
37.5	264,525	7,457	0.0282	0.9718	61.88
38.5	244,397	1,569	0.0064	0.9936	60.14

ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1923-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	245.075	2 417	0 0099	0 9901	E0 78
40.5	238 646	2,417	0.0000	0.9901	59.75
41.5	210 171	20,1,7	0.1223	0.0777	59.10
42 5	209 360	100	0.0003	0.9999	51.93
43.5	209,900	1 979	0.0021	0.9979	51.90
44 5	191 123	1,020	0.0088	0.9912	51.80
45 5	205 880	2 4 1	0.0000	1.0000	51.34
46 5	185 301	341 750	0.0017	0.9983	51.34
47 5	184 563	758	0.0041	0.9959	51.26
48 5	164,505	40	0.0002	0.9998	51.05
40.5	T04'427		0.0000	1.0000	51.03
49.5	172,538		0.0000	1.0000	51.03
50.5	127,305		0.0000	1.0000	51.03
51.5	92,274	3,713	0.0402	0.9598	51.03
52.5	86,948	1,617	0.0186	0.9814	48.98
53.5	85,331	6,450	0.0756	0.9244	48.07
54.5	78,088	376	0.0048	0.9952	44.44
55.5	77,711		0.0000	1.0000	44.22
56.5	77,711		0.0000	1.0000	44.22
57.5	76,879	42	0.0005	0.9995	44.22
58.5	69,889	26	0.0004	0.9996	44.20
59.5	58,783		0.0000	1.0000	44.18
60.5	47,937		0.0000	1.0000	44.18
61.5	45,488		0.0000	1.0000	44.18
62.5	37,084	36	0.0010	0.9990	44.18
63.5	32,434		0.0000	1.0000	44.14
64.5	31,963		0.0000	1.0000	44.14
65.5	20,789		0.0000	1.0000	44.14
66.5	20,507		0.0000	1.0000	44.14
67.5	20,507		0.0000	1.0000	44.14
68.5	18,083		0.0000	1.0000	44.14
69.5	17,919		0.0000	1.0000	44.14
70.5	17,919		0.0000	1.0000	44.14
71.5	17,919		0.0000	1.0000	44.14
72.5	17,919		0.0000	1.0000	44.14
73.5	17,919		0.0000	1.0000	44.14
74.5	17,919		0,0000	1.0000	44.14
75.5	17,919		0.0000	1.0000	44.14
76.5	17,770		0,0000	1.0000	44.14
77.5	17,770		0,0000	1.0000	44 14
78.5	17,770		0.0000	1.0000	44.14
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ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1923-2015

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 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5 88.5	16,943 16,943 16,943 16,943 16,711 9,666 9,666 9,666 9,666 9,666	231	0.0000 0.0000 0.0137 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9863 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	$\begin{array}{r} 44.14\\ 44.14\\ 44.14\\ 44.14\\ 43.55\\ 43.55\\ 43$
89.5 90.5 91.5 92.5	8,281 5,884 5,884	984	0.1188 0.0000 0.0000	0.8812 1.0000 1.0000	43.54 38.36 38.36 38.36 38.36

ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1923-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	4,478,162	550	0.0001	0.9999	100.00
0.5	4,243,831		0.0000	1.0000	99.99
1.5	4,222,314	4,009	0.0009	0.9991	99.99
2.5	4,020,253	13,766	0.0034	0.9966	99.89
3.5	4,125,285	35,969	0.0087	0.9913	99.55
4.5	4,081,124	19,871	0.0049	0.9951	98.68
5.5	3,992,742	28,118	0.0070	0.9930	98.20
6.5	3,779,950	41,588	0.0110	0.9890	97.51
7.5	3,474,385	10,119	0.0029	0.9971	96.44
8.5	3,186,852	3,673	0.0012	0.9988	96.16
9.5	2,790,598	63,351	0.0227	0.9773	96.05
10.5	2,386,700	4,002	0.0017	0.9983	93.87
11.5	2,264,454	111	0.0000	1.0000	93.71
12.5	1,913,792	27,930	0.0146	0.9854	93.70
13.5	1,827,941	12,141	0.0066	0.9934	92.34
14.5	1,743,911	26,170	0.0150	0.9850	91.72
15.5	1,455,153	4,998	0.0034	0,9966	90.35
16.5	1,376,674	2,913	0.0021	0.9979	90.04
17.5	1,079,812	601	0.0006	0.9994	89.85
18.5	973,278	17,131	0.0176	0.9824	89.80
19.5	713,001	3,801	0.0053	0.9947	88,22
20.5	679,307		0.0000	1.0000	87.74
21.5	642,193	416	0.0006	0.9994	87.74
22.5	657,032		0.0000	1.0000	87.69
23.5	659,562	4,267	0.0065	0.9935	87.69
24.5	591,995		0.0000	1.0000	87.12
25.5	581,210		0.0000	1.0000	87.12
26.5	580,540	12,155	0.0209	0.9791	87.12
27.5	484,814	·	0.0000	1.0000	85.30
28.5	377,404	14,883	0.0394	0.9606	85.30
29.5	326,786	7,354	0.0225	0.9775	81.93
30.5	303,243	8,580	0.0283	0.9717	80.09
31.5	218,054	1,751	0.0080	0.9920	77.82
32.5	225,071	3,931	0.0175	0.9825	77.20
33.5	230,744		0.0000	1.0000	75,85
34.5	232,320	25,173	0.1084	0.8916	75.85
35.5	246,435	958	0.0039	0.9961	67.63
36.5	229,425	26,265	0.1145	0.8855	67.37
37.5	243,982	7,457	0.0306	0.9694	59,66
38.5	226,279	1,569	0.0069	0.9931	57.83

ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1923-2015

EXPERIENCE BAND 1986-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	227.120	2.417	0 0106	0 9894	57 43
40.5	220,692	29.177	0 1322	0.9678	57.43
41.5	192.252	109	0.1022	0.0078	40.02
42.5	191,441	440	6.0000 6.0000	0.9994	49.31
43.5	190,902	1 828	0.0025	0.9977	42.20
44.5	173,204	1,020	0.0000	1 0000	49.17
45.5	187,961	341	0.0000	1,0000	40.70
46.5	167.551	758	0.0015	0,9982	40.70
47.5	166.793	45	0.0003	0.9995	40.01 40.01
48.5	146,725	10	0.0000	1.0000	48.38
49.5	155.595		0 0000	1 0000	40.20
50.5	110,363		0.0000	1.0000	48.38
51.5	75,331	3 713	0.0000	1.0000	48.38
52.5	70,005	1 617		0.9307	48.38
53.5	68,388	1,017 6 450	0.0231	0.9769	45.99
54.5	68,191	376	0.0943	0.9037	44.93
55.5	67,814	0/0	0.0033	0.9945	40.69
56.5	67,814		0.0000	1.0000	40.47
57.5	66,982	40	0.0000	1.0000	40.47
58.5	59,992		0.0008	0.9994	40.47
		20	0.0004	0.5556	40.44
59.5	50,271		0.0000	1.0000	40.42
60.5	40,838		0.0000	1.0000	40.42
61.5	38,389		0.0000	1.0000	40.42
62.5	37,084	36	0.0010	0.9990	40.42
63.5	32,434		0.0000	1.0000	40.38
64.5	31,963		0.0000	1.0000	40.38
65.5	20,789		0.0000	1.0000	40.38
66.5	20,507		0.0000	1.0000	40.38
67.5	20,507		0.0000	1.0000	40.38
68.5	18,083		0.0000	1.0000	40.38
69.5	17,919		0.0000	1.0000	40.38
70.5	17,919		0.0000	1.0000	40.38
71.5	17,919		0.0000	1.0000	40.38
72.5	17,919		0.0000	1.0000	40.38
73.5	17,919		0.0000	1.0000	40.38
74.5	17,919		0.0000	1.0000	40.38
75.5	17,919		0.0000	1.0000	40.38
76.5	17,770		0.0000	1.0000	40.38
77.5	17,770		0.0000	1.0000	40.38
78.5	17,770		0.0000	1.0000	40.38

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ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1923-2015

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	16,943		0.0000	1.0000	40.38
80.5	16,943		0.0000	1.0000	40.38
81.5	16,943		0.0000	1.0000	40.38
82.5	16,943	231	0.0137	0.9863	40.38
83.5	16,711		0.0000	1.0000	39.83
84.5	9,666		0.0000	1.0000	39.83
85.5	9,666		0.0000	1.0000	39.83
86,5	9,666	·	0.0000	1.0000	39,83
87.5	9,666		0.0000	1.0000	39.83
88.5	9,666		0.0000	1.0000	39.83
89.5	8,281	984	0.1188	0.8812	39.83
90.5	5,884		0.0000	1.0000	35.10
91.5	5,884		0.0000	1.0000	35.10
92.5					35.10

AQUA OHIO, INC. ACCOUNT 308 INFILTRATION GALLERIES AND TUNNELS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 308 INFILTRATION GALLERIES AND TUNNELS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1997-2009

EXPERTENCE	PAND	2002	-201	5
ا يُبْلِي لا يُبْلِ عَالَكُمْ تَعَالَكُمْ تَعَالَكُمْ تَعَالَكُمْ تَعَالَكُمُ تَعَالَكُمُ تَعَالَكُمُ تَعَا		2002	~ ~ ~	2.3

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	23,269		0 0000	1 0000	100 00
0.5	23,269		0.0000	1 0000	100.00
15	22,202		0.0000	1.0000	100.00
	23,203		0.0000	1.0000	100.00
2.5	23,209		0.0000	1.0000	100.00
3.5	23,269		0.0000	1.0000	100.00
4.5	24,409		0.0000	1.0000	100.00
5.5	24,409		0.0000	1.0000	100.00
6.5	1,140		0.0000	1.0000	100.00
7.5	1,140		0.0000	1.0000	100.00
8.5	1,140		0.0000	1.0000	100.00
9.5	1,140		0.0000	1.0000	100.00
10.5	1,140		0.0000	1,0000	100.00
11.5	1,140		0.0000	1.0000	100.00
12.5	1,140		0.0000	1.0000	100.00
13.5	1,140		0.0000	1.0000	100.00
14.5	1,140		0.0000	1.0000	100 00
15.5	1,140		0.0000	1 0000	100.00
16.5	1 140		0 0000	3 0000	100.00
17 5	1 140		0.0000	1.0000	100.00
10 5	1,140		0.0000	T.0000	T00.00
19.2					100.00

AQUA OHIO, INC. ACCOUNT 309 SUPPLY MAINS ORIGINAL AND SMOOTH SURVIVOR CURVES



🖄 Gannett Fleming

ACCOUNT 309 SUPPLY MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1928-2014

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	1,746,875	219	0 0001	0 9999	100 00
0.5	1,746,656		0.0000	1.0000	49 99
1.5	1,742,768		0 0000	1 0000	99 90
2.5	1,741,060		0 0000	1 0000	99 99
3.5	1,742,405		0.0000	1 0000	99.99
4.5	1,742,405		0.0000	1.0000	99 99
5.5	1,704,172	5.135	0.0030	0.9970	99 99
6.5	1,661,654	0,200	0.0000	1 0000	99 69
7.5	1,660,629	10.054	0.0061	0.9939	99 69
8.5	1,645,401		0.0000	1.0000	99.08
9.5	1,605,569	4,551	0.0028	0.9972	99.08
10.5	1,601,018	104	0.0001	0.9999	98.80
11.5	1,600,914		0.0000	1.0000	98.80
12.5	1,569,275		0.0000	1.0000	98.80
13.5	1,569,275	147	0.0001	0.9999	98.80
14.5	1,563,000	2,652	0.0017	0.9983	98.79
15.5	1,497,038		0.0000	1.0000	98.62
16.5	1,497,038		0.0000	1.0000	98.62
17.5	1,428,710		0.0000	1.0000	98.62
18.5	1,422,489		0.0000	1.0000	98.62
19.5	1,091,611		0.0000	1.0000	98.62
20.5	1,084,307		0.0000	1.0000	98.62
21.5	1,083,533	2,567	0.0024	0.9976	98.62
22.5	1,070,767		0.0000	1.0000	98.38
23.5	1,070,767	102	0.0001	0.9999	98.38
24.5	1,067,675		0.0000	1.0000	98.38
25.5	1,067,675	3,110	0.0029	0.9971	98.38
26.5	1,029,713		0.0000	1.0000	98.09
27.5	1,003,598	701	0.0007	0.9993	98.09
28.5	979,822	1,327	0.0014	0.9986	98.02
29.5	978,149		0.0000	1.0000	97.89
30.5	957,079	7,340	0.0077	0.9923	97.89
31.5	706,832		0.0000	1.0000	97.14
32.5	693,690		0.0000	1.0000	97.14
33.5	693,430	1,340	0.0019	0.9981	97.14
34.5	687,661	3,102	0.0045	0.9955	96.95
35.5	684,559	38,541	0.0563	0.9437	96.51
36.5	646,018	5,276	0.0082	0.9918	91.08
37.5	621,225		0.0000	1.0000	90.33
38,5	621,225		0.0000	1.0000	90.33

ACCOUNT 309 SUPPLY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1928-2014

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	598,146	2,927	0.0049	0.9951	90.33
40.5	595,219		0.0000	1.0000	89.89
41.5	576,811	5,948	0.0103	0.9897	89.89
42.5	570,863		0.0000	1.0000	88.97
43.5	511,239	1,138	0.0022	0.9978	88.97
44.5	504,143		0.0000	1.0000	88.77
45.5	504,143		0.0000	1.0000	88.77
46.5	503,437	2,090	0.0042	0.9958	88.77
47.5	501,347		0.0000	1.0000	88.40
48.5	463,936		0.0000	1.0000	88.40
49.5	459,279		0.0000	1.0000	88.40
50.5	245,630		0.0000	1.0000	88.40
51.5	245,359		0.0000	1.0000	88.40
52.5	245,239		0.0000	1.0000	88.40
53.5	245,239		0.0000	1.0000	88.40
54.5	92,055		0.0000	1.0000	88.40
55.5	92,038		0.0000	1.0000	88.40
56.5	90,512		0.0000	1.0000	88.40
57.5	54,703		0.0000	1.0000	88.40
58.5	11,715	197	0.0168	0.9832	88.40
59.5	11,518		0.0000	1.0000	86.91
60.5	10,045		0.0000	1.0000	86.91
61.5	10,045		0.0000	1.0000	86.91
62.5	10,045		0.0000	1.0000	86.91
63.5	9,001	6,600	0.7333	0.2667	86.91
64.5	2,401		0.0000	1.0000	23.18
65.5	2,401		0.0000	1.0000	23.18
66.5	2,401		0.0000	1.0000	23.18
67.5	2,401		0.0000	1.0000	23.18
68.5	2,401		0.0000	1.0000	23.18
69.5	2,401		0.0000	1.0000	23.18
70.5	2,401		0.0000	1.0000	23.18
71.5	2,401		0.0000	1.0000	23.18
72.5	2,401		0.0000	1.0000	23.18
73.5	2,401		0.0000	1.0000	23.18
74.5	2,401		0.0000	1.0000	23.18
75.5	1,346		0.0000	1.0000	23.18
76.5	1,346		0.0000	1.0000	23.18
77.5	1,346		0.0000	1.0000	23.18
78.5	1,346		0.0000	1.0000	23.18

ACCOUNT 309 SUPPLY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1928-2014

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	1,346		0.0000	1.0000	23.18
80.5	1,346		0.0000	1.0000	23.18
81.5	1,346		0.0000	1.0000	23.18
82.5	1,346		0.0000	1.0000	23.18
83.5	1,346		0.0000	1.0000	23.18
84.5	1,346		0.0000	1.0000	23.18
85.5	1,346		0.0000	1.0000	23.18
86.5	1,346		0.0000	1.0000	23.18
87.5					23.18

ACCOUNT 309 SUPPLY MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1928-2014

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	1,027,340	219	0.0002	0.9998	100.00
0.5	1,027,122		0.0000	1.0000	99.98
1.5	1,023,233		0.0000	1.0000	99.98
2.5	1,041,042		0.0000	1.0000	99.98
3.5	1,041,042		0.0000	1.0000	99,98
4.5	1,068,671		0.0000	1.0000	99.98
5.5	1,030,438	5,135	0.0050	0.9950	99.98
6.5	1,015,711	•	0.0000	1.0000	99.48
7.5	1,014,686	10,054	0.0099	0.9901	99.48
8.5	1,061,734		0.0000	1.0000	98.49
9,5	1,036,686	4,551	0.0044	0.9956	98.49
10.5	1,032,136	104	0.0001	0.9999	98.06
11.5	1,032,738		0.0000	1.0000	98.05
12.5	1,001,100		0.0000	1.0000	98.05
13.5	1,038,511	147	0.0001	0.9999	98.05
14.5	1,074,319	2,652	0.0025	0.9975	98.04
15.5	1,227,283	•	0.0000	1.0000	97.80
16.5	1,227,553		0.0000	1.0000	97.80
17.5	1,161,912		0.0000	1.0000	97.80
18.5	1,157,719		0.0000	1.0000	97.80
19.5	980,025		0.0000	1.0000	97.80
20.5	978,686		0.0000	1.0000	97.80
21.5	979,438	2,567	0.0026	0.9974	97.80
22.5	1,005,441		0.0000	1.0000	97.54
23.5	1,049,795	102	0.0001	0.9999	97.54
24.5	1,049,630		0.0000	1.0000	97.53
25.5	1,051,103	3,110	0.0030	0.9970	97.53
26.5	1,013,141		0.0000	1.0000	97.24
27.5	987,026	701	0.0007	0.9993	97.24
28.5	967,396	1,327	0.0014	0.9986	97.17
29.5	965,723		0.0000	1.0000	97.04
30.5	944,653	7,340	0.0078	0.9922	97.04
31.5	694,406		0.0000	1.0000	96.29
32.5	681,264		0.0000	1.0000	96.29
33.5	681,004	1,340	0.0020	0.9980	96.29
34.5	675,235	3,102	0.0046	0.9954	96.10
35.5	672,133	38,541	0.0573	0.9427	95.65
36.5	633,592	5,276	0.0083	0.9917	90.17
37.5	608,799		0.0000	1.0000	89.42
38.5	608,799		0.0000	1.0000	89.42

ACCOUNT 309 SUPPLY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1928-2014

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	585,720	2,927	0.0050	0.9950	89.42
40.5	584,987		0.0000	1.0000	88.97
41.5	566,578	5,948	0.0105	0.9895	88.97
42.5	560,630		0.0000	1.0000	88.04
43.5	503,293	1,138	0.0023	0.9977	88.04
44.5	496,197		0.0000	1.0000	87.84
45.5	496,197		0.0000	1.0000	87.84
46.5	495,491	2,090	0.0042	0.9958	87.84
47.5	493,401		0.0000	1.0000	87.47
48.5	462,590		0.0000	1.0000	87.47
49.5	457,933		0.0000	1.0000	87.47
50.5	244,284		0.0000	1.0000	87.47
51.5	244,013		0.0000	1.0000	87.47
52.5	245,239		0.0000	1.0000	87.47
53.5	245,239		0.0000	1.0000	87.47
54.5	92,055		0.0000	1.0000	87.47
55.5	92,038		0.0000	1.0000	87.47
56.5	90,512		0.0000	1.0000	87.47
57.5	54,703		0.0000	1.0000	87.47
58.5	11,715	197	0.0168	0.9832	87.47
59.5	11,518		0.0000	1.0000	86.00
60.5	10,045		0.0000	1.0000	86.00
61.5	10,045		0.0000	1.0000	86.00
62.5	10,045		0.0000	1.0000	86.00
63.5	9,001	6,600	0.7333	0.2667	86.00
64.5	2,401		0.0000	1.0000	22.94
65.5	2,401		0.0000	1.0000	22.94
66.5	2,401		0.0000	1.0000	22.94
67.5	2,401		0.0000	1.0000	22.94
68.5	2,401		0.0000	1.0000	22.94
69.5	2,401		0.0000	1.0000	22.94
70.5	2,401		0.0000	1.0000	22.94
71.5	2,401		0.0000	1.0000	22.94
72.5	2,401		0.0000	1.0000	22.94
/3.5	2,401		0.0000	1.0000	22.94
74.5	2,401		0.0000	1.0000	22.94
/5.5	1,346		0.0000	1.0000	22.94
76.5	1,346		0.0000	1.0000	22.94
77.5	1,346		0.0000	1.0000	22.94
78.5	1,346		0.0000	1.0000	22.94

ACCOUNT 309 SUPPLY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1928-2014

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	1,346		0.0000	1.0000	22.94
80.5	1,346		0.0000	1.0000	22,94
81.5	1,346		0.0000	1.0000	22.94
82.5	1,346		0.0000	1.0000	22.94
83.5	1,346		0.0000	1.0000	22.94
84.5	1,346		0.0000	1,0000	22,94
85.5	1,346		0.0000	1.0000	22.94
86.5	1,346		0.0000	1.0000	22.94
87.5					22.94

AQUA OHIO, INC. ACCOUNT 310 POWER GENERATION EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 310 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1976-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	3,588,207		0.0000	1.0000	100.00
0.5	3,500,940	2,357	0.0007	0.9993	100.00
1.5	3,397,247		0.0000	1.0000	99.93
2.5	3,370,582	2,866	0.0009	0.9991	99.93
3.5	3,356,750		0.0000	1.0000	99.85
4.5	3,162,120	3,092	0.0010	0.9990	99.85
5.5	3,145,336		0.0000	1.0000	99.75
6.5	3,190,590	2,861	0.0009	0.9991	99.75
7.5	2,709,126	4,004	0.0015	0.9985	99.66
8.5	821,513		0.0000	1.0000	99.51
9.5	789,105		0.0000	1.0000	99.51
10.5	788,551		0.0000	1.0000	99.51
11.5	788,551		0.0000	1.0000	99.51
12.5	788,551		0.0000	1.0000	99.51
13.5	788,551		0.0000	1.0000	99.51
14.5	788,648		0.0000	1.0000	99.51
15.5	716,475	5,415	0.0076	0.9924	99.51
16.5	270,287	1,983	0.0073	0.9927	98.76
17.5	268,303		0.0000	1.0000	98.04
18.5	268,303	58,800	0.2192	0.7808	98.04
19.5	196,751		0.0000	1.0000	76.55
20.5	176,347		0.0000	1.0000	76.55
21.5	62,223		0.0000	1.0000	76.55
22.5	62,223		0.0000	1.0000	76.55
23.5	62,223		0.0000	1.0000	76.55
24.5	62,223		0.0000	1.0000	76.55
25.5	58,931		0.0000	1.0000	76.55
26.5	58,931		0.0000	1.0000	76.55
27.5	58,931		0.0000	1.0000	76.55
28,5	58,833		0.0000	1.0000	76.55
29.5	58,833		0.0000	1.0000	76.55
30.5	58,833		0.0000	1.0000	76.55
31.5	58,833		0.0000	1.0000	76.55
32.5	46,847	46,847	1.0000		76.55
33.5					

AQUA OHIO, INC. ACCOUNT 311 PUMPING EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	18,851,814	61,490	0.0033	0.9967	100.00
0.5	18,254,402	18,746	0.0010	0.9990	99.67
1.5	18,226,514	53,022	0.0029	0.9971	99.57
2.5	17,613,399	102,355	0.0058	0.9942	99.28
3.5	17,098,049	104,581	0.0061	0.9939	98.70
4.5	16,229,067	169,222	0.0104	0.9896	98,10
5.5	15,547,819	182,870	0.0118	0.9882	97.08
6.5	15,216,403	67,653	0.0044	0.9956	95.94
7.5	14,764,601	234,865	0.0159	0.9841	95.51
8.5	13,935,406	146,946	0.0105	0.9895	93.99
9.5	12,809,311	145,938	0.0114	0.9886	93.00
10.5	12,357,621	116,198	0.0094	0.9906	91.94
11.5	11,315,583	69,095	0.0061	0.9939	91.08
12.5	10,579,180	65,468	0.0062	0.9938	90.52
13.5	9,819,321	48,438	0.0049	0.9951	89.96
14.5	8,925,293	154,702	0.0173	0.9827	89.52
15.5	8,220,763	167,109	0.0203	0.9797	87.96
16.5	7,173,885	57,485	0.0080	0.9920	86.18
17.5	6,896,037	58,354	0.0085	0.9915	85.49
18.5	5,778,194	48,852	0.0085	0.9915	84.76
19.5	5,355,476	64,706	0.0121	0.9879	84.05
20.5	4,547,862	14,876	0.0033	0.9967	83.03
21.5	4,071,461	21,814	0.0054	0.9946	82.76
22.5	3,895,079	46,068	0.0118	0.9882	82.31
23.5	3,515,506	44,609	0.0127	0.9873	81.34
24.5	3,235,606	67,598	0.0209	0.9791	80.31
25.5	2,806,632	36,188	0.0129	0.9871	78.63
26.5	2,748,032	37,251	0.0136	0.9864	77.62
27.5	2,642,067	26,209	0.0099	0.9901	76.57
28.5	2,475,159	65,826	0.0266	0.9734	75.81
29.5	2,285,138	68,894	0.0301	0.9699	73.79
30.5	2,078,410	48,906	0.0235	0.9765	71.57
31.5	1,665,214	24,051	0.0144	0.9856	69.88
32.5	1,615,175	44,667	0.0277	0.9723	68.87
33.5	1,539,620	9,967	0.0065	0.9935	66.97
34.5	1,477,242	18,537	0.0125	0.9875	66.53
35.5	1,475,045	8,385	0.0057	0.9943	65.70
36.5	1,397,882	36,272	0.0259	0.9741	65.33
37.5	1,346,477	7,636	0.0057	0.9943	63.63
38.5	1,298,637	1,138	0.0009	0.9991	63.27

ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	1,242,822		0.0000	1.0000	63.21
40.5	1,225,439	43,642	0.0356	0.9644	63.21
41.5	1,142,556	452	0.0004	0.9996	60.96
42.5	976,159	12,229	0.0125	0.9875	60.94
43.5	866,125	23,170	0.0268	0.9732	60.18
44.5	824,212	44,293	0.0537	0.9463	58.57
45.5	777,889	31,872	0.0410	0.9590	55.42
46.5	741,972	8,960	0.0121	0.9879	53.15
47.5	719,908	3,678	0.0051	0.9949	52.51
48.5	661,465	15,115	0.0229	0.9771	52.24
49.5	624,605	6,764	0.0108	0.9892	51.04
50.5	568,603		0.0000	1.0000	50.49
51.5	562,792	29,872	0.0531	0.9469	50.49
52.5	530,401	154	0.0003	0.9997	47.81
53.5	530,151	5,015	0.0095	0.9905	47.80
54.5	501,291	3,246	0.0065	0.9935	47.34
55.5	497,735	277	0.0006	0.9994	47.04
56.5	462,094	2,943	0.0064	0.9936	47.01
57.5	295,319	4 38,852	0.1316	0.8684	46.71
58.5	195,364	24,683	0.1263	0.8737	40.57
59.5	163,884	207	0.0013	0.9987	35.44
60.5	158,547		0.0000	1.0000	35.40
61.5	158,327	1,165	0.0074	0.9926	35.40
62.5	53,867	1,183	0.0220	0.9780	35.14
63.5	32,246		0.0000	1.0000	34.37
64.5	32,145	943	0.0293	0.9707	34.37
65.5	30,830		0.0000	1.0000	33.36
66.5	30,229		0.0000	1.0000	33.36
67.5	29,525		0.0000	1.0000	33.36
68.5	28,709		0.0000	1.0000	33.36
69.5	28,600		0.0000	1.0000	33.36
70.5	28,600		0.0000	1.0000	33.36
71.5	28,600		0.0000	1.0000	33.36
72.5	28,600	5,825	0.2037	0.7963	33.36
/3.5	22,776		0.0000	1.0000	26.56
74.5	22,776		0.0000	1.0000	26.56
75.5	22,776		0.0000	1.0000	26.56
76.5	22,776		0.0000	1.0000	26.56
77.5	22,658		0.0000	1.0000	26.56
78.5	22,658		0.0000	1.0000	26.56

ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	22,658		0 0000	1 0000	
80.5	22,658		0.0000	1.0000	20.50
81.5	22,658		0.0000	1,0000	20.00
82.5	22,658		0.0000	1.0000	26.56
83.5	14 396		0.0000	1.0000	20.50
84 5	14,396		0.0000	1.0000	20.50
85 5	14 396		0.0000	1.0000	26.56
86 5	14,556		0.0000	1.0000	20.50
87 5	£ 394		0.0000	1.0000	26.56
88 5	6 3 94		0.0000	1.0000	26.56
00.5	0,074		0.0000	1.0000	26.56
89.5	6,394		0.0000	1.0000	26.56
90.5	5,045		0.0000	1.0000	26.56
91.5	5,045		0.0000	1.0000	26.56
92.5	5,045		0.0000	1.0000	26.56
93.5	5,045		0.0000	1.0000	26.56
94.5	5,045	33	0.0066	0.9934	26.56
95.5	5,012		0.0000	1.0000	26.39
96.5	5,012		0.0000	1.0000	26.39
97.5	5,012		0.0000	1.0000	26.39
98.5	5,012		0.0000	1.0000	26.39
99.5	5,012		0.0000	1.0000	26.39
100.5	5,012		0.0000	1.0000	26.39
101.5	5,012		0.0000	1.0000	26.39
102.5	5,012		0.0000	1.0000	26.39
103.5	5,012		0.0000	1.0000	26.39
104.5	5,012		0.0000	1.0000	26.39
105.5	4,862		0.0000	1.0000	26.39
106.5	4,862		0.0000	1.0000	26.39
107.5	4,862		0.0000	1.0000	26.39
108.5	4,862	2	0.0004	0.9996	26.39
109.5	4.860		0 0000	1 0000	26 38
110.5	4,860		0 0000	1 0000	26.38
111.5	4,860	371	0.0763	0 9237	26.38
112.5	4,489	574	0.0700	1 0000	20.30
113.5	4.489		0 0000	1 0000	23.2/ 7/ 17
114.5	4 489		0 0000	1 0000	24.3/
115.5	4,489		0.0000	1 0000	44.31 01 27
116.5	4 489		0.0000	1 0000	24.3/
117.5	4 489		0.0000	1 0000	~4.3/
118 5	1 A D D		0.0000	1.0000	24.3/
ч., С. С. Т.	4,407		0.0000	T.0000	24.37

ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

BEGIN OF INTERVALBEGINNING OF AGE INTERVALDURING AGE INTERVALRETMT RATIOSURV RATIOBEGIN OF INTERVAL119.52,5770.00001.000024.37120.52,5770.00001.000024.37121.52,5770.00001.000024.37122.52,5770.00001.000024.37123.52,5770.00001.000024.37124.52,5770.00001.000024.37125.52,5680.00001.000024.29126.52,5680.00001.000024.29127.52,5680.00001.000024.29128.52,5680.00001.000024.29129.58350.00001.000024.29131.58350.00001.000024.29133.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29134.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29135.58350.00001.000024.29135.5 </th <th>AGE AT</th> <th>EXPOSURES AT</th> <th>RETIREMENTS</th> <th></th> <th></th> <th>PCT SURV</th>	AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
INTERVALAGE INTERVALINTERVALRATIORATIOINTERVAL119.52,5770.00001.000024.37120.52,5770.00001.000024.37121.52,5770.00001.000024.37122.52,5770.00001.000024.37123.52,5770.00001.000024.37124.52,57790.00001.000024.37125.52,5680.00001.000024.29126.52,5680.00001.000024.29127.52,5680.00001.000024.29128.52,5680.00001.000024.29129.58350.00001.000024.29130.58350.00001.000024.29131.58350.00001.000024.29133.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29135.58350.00001.000024.29135.58350.00001.000024.29135.58350.00001.000024.29135.58350.00001.000024.29135.58350.00001.000024.29135.58350.00001.000024.29	BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
119.5 $2,577$ 0.0000 1.0000 24.37 120.5 $2,577$ 0.0000 1.0000 24.37 121.5 $2,577$ 0.0000 1.0000 24.37 122.5 $2,577$ 0.0000 1.0000 24.37 123.5 $2,577$ 0.0000 1.0000 24.37 124.5 $2,577$ 9 0.0033 0.9967 24.37 125.5 $2,568$ 0.0000 1.0000 24.29 126.5 $2,568$ 0.0000 1.0000 24.29 127.5 $2,568$ 0.0000 1.0000 24.29 128.5 $2,568$ 0.0000 1.0000 24.29 129.5 835 0.0000 1.0000 24.29 130.5 835 0.0000 1.0000 24.29 131.5 835 0.0000 1.0000 24.29 134.5 835 0.0000 1.0000 24.29 134.5 835 0.0000 1.0000 24.29 135.5 835 0.0000 1.0000 24.29	INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
120.5 $2,577$ 0.0000 1.0000 24.37 121.5 $2,577$ 0.0000 1.0000 24.37 122.5 $2,577$ 0.0000 1.0000 24.37 123.5 $2,577$ 0.0000 1.0000 24.37 124.5 $2,577$ 9 0.0000 1.0000 24.37 125.5 $2,568$ 0.0000 1.0000 24.29 126.5 $2,568$ 0.0000 1.0000 24.29 127.5 $2,568$ 0.0000 1.0000 24.29 128.5 $2,568$ 0.0000 1.0000 24.29 129.5 835 0.0000 1.0000 24.29 130.5 835 0.0000 1.0000 24.29 131.5 835 0.0000 1.0000 24.29 132.5 835 0.0000 1.0000 24.29 134.5 835 0.0000 1.0000 24.29 135.5 835 0.0000 1.0000 24.29 135.5 835 0.0000 1.0000 24.29	119.5	2,577		0.0000	1.0000	24.37
121.5 $2,577$ 0.0000 1.0000 24.37 122.5 $2,577$ 0.0000 1.0000 24.37 123.5 $2,577$ 0.0000 1.0000 24.37 124.5 $2,577$ 9 0.0033 0.9967 24.37 125.5 $2,568$ 0.0000 1.0000 24.29 126.5 $2,568$ 0.0000 1.0000 24.29 127.5 $2,568$ 0.0000 1.0000 24.29 128.5 $2,568$ 0.0000 1.0000 24.29 129.5 835 0.0000 1.0000 24.29 130.5 835 0.0000 1.0000 24.29 131.5 835 0.0000 1.0000 24.29 132.5 835 0.0000 1.0000 24.29 134.5 835 0.0000 1.0000 24.29 135.5 835 0.0000 1.0000 24.29 135.5 835 0.0000 1.0000 24.29	120.5	2,577		0.0000	1.0000	24.37
122.5 $2,577$ 0.0000 1.0000 24.37 123.5 $2,577$ 0.0000 1.0000 24.37 124.5 $2,577$ 9 0.0033 0.9967 24.37 125.5 $2,568$ 0.0000 1.0000 24.29 126.5 $2,568$ 0.0000 1.0000 24.29 127.5 $2,568$ 0.0000 1.0000 24.29 128.5 $2,568$ 0.0000 1.0000 24.29 129.5 835 0.0000 1.0000 24.29 130.5 835 0.0000 1.0000 24.29 131.5 835 0.0000 1.0000 24.29 132.5 835 0.0000 1.0000 24.29 134.5 835 0.0000 1.0000 24.29 135.5 835 0.0000 1.0000 24.29 135.5 835 0.0000 1.0000 24.29 135.5 835 0.0000 1.0000 24.29	121.5	2,577		0.0000	1.0000	24.37
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	122.5	2,577		0.0000	1.0000	24.37
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	123.5	2,577		0.0000	1.0000	24.37
125.5 $2,568$ 0.0000 1.0000 24.29 126.5 $2,568$ 0.0000 1.0000 24.29 127.5 $2,568$ 0.0000 1.0000 24.29 128.5 $2,568$ 0.0000 1.0000 24.29 129.5 835 0.0000 1.0000 24.29 130.5 835 0.0000 1.0000 24.29 131.5 835 0.0000 1.0000 24.29 132.5 835 0.0000 1.0000 24.29 133.5 835 0.0000 1.0000 24.29 134.5 835 0.0000 1.0000 24.29 135.5 835 0.0000 1.0000 24.29	124.5	2,577	9	0.0033	0.9967	24.37
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	125.5	2,568		0.0000	1.0000	24.29
127.52,5680.00001.000024.29128.52,5680.00001.000024.29129.58350.00001.000024.29130.58350.00001.000024.29131.58350.00001.000024.29132.58350.00001.000024.29133.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29	126.5	2,568		0.0000	1.0000	24.29
128.52,5680.00001.000024.29129.58350.00001.000024.29130.58350.00001.000024.29131.58350.00001.000024.29132.58350.00001.000024.29133.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29	127.5	2,568		0.0000	1.0000	24.29
129.58350.00001.000024.29130.58350.00001.000024.29131.58350.00001.000024.29132.58350.00001.000024.29133.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29	128.5	2,568		0.0000	1.0000	24.29
130.58350.00001.000024.29131.58350.00001.000024.29132.58350.00001.000024.29133.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29	129.5	835		0.0000	1,0000	24.29
131.58350.00001.000024.29132.58350.00001.000024.29133.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29	130.5	835	x	0.0000	1.0000	24.29
132.58350.00001.000024.29133.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29	131.5	835		0.0000	1.0000	24.29
133.58350.00001.000024.29134.58350.00001.000024.29135.58350.00001.000024.29	132.5	835		0.0000	1.0000	24.29
134.5 835 0.0000 1.0000 24.29 135.5 835 0.0000 1.0000 24.29	133.5	835		0.0000	1.0000	24.29
135.5 835 0.0000 1.0000 24.29	134.5	835		0.0000	1.0000	24.29
0.0000 1.0000 24.25	135.5	835		0.0000	1.0000	24.29
136.5 24.29	136.5					24.29

ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	16,906,482	2,437	0.0001	0.9999	100.00
0.5	16,444,610	17,670	0.0011	0.9989	99.99
1.5	16,489,631	53,022	0.0032	0.9968	99.88
2.5	15,929,443	102,355	0.0064	0.9936	99.56
3.5	15,492,475	104,331	0.0067	0.9933	98,92
4.5	14,698,143	168,938	0.0115	0.9885	98.25
5.5	14,035,040	182,241	0.0130	0.9870	97.12
6.5	13,790,282	67,215	0.0049	0.9951	95.86
7.5	13,554,833	234,865	0.0173	0.9827	95.39
8.5	12,889,818	146,946	0.0114	0.9886	93.74
9.5	11,795,822	145,938	0.0124	0.9876	92.67
10.5	11,353,364	116,198	0.0102	0.9898	91.53
11.5	10,329,661	69,095	0.0067	0.9933	90.59
12.5	9,627,500	65,468	0.0068	0.9932	89.98
13.5	8,964,542	48,438	0.0054	0.9946	89.37
14.5	8,124,376	154,702	0.0190	0.9810	88.89
15.5	7,465,486	167,109	0.0224	0.9776	87.20
16.5	6,429,299	57,485	0.0089	0.9911	85.24
17.5	6,178,312	58,354	0.0094	0.9906	84.48
18.5	5,061,743	48,852	0.0097	0.9903	83.68
19.5	4,670,943	64,706	0.0139	0.9861	82.88
20.5	3,867,072	14,876	0.0038	0.9962	81.73
21.5	3,436,699	21,814	0.0063	0.9937	81.41
22.5	3,479,665	46,068	0.0132	0.9868	80.90
23.5	3,185,893	44,609	0.0140	0.9860	79.83
24.5	2,914,006	67,598	0.0232	0.9768	78.71
25.5	2,486,196	36,188	0.0146	0.9854	76.88
26.5	2,427,816	37,251	0.0153	0.9847	75.76
27.5	2,493,581	26,209	0.0105	0.9895	74.60
28.5	2,406,419	65,826	0.0274	0.9726	73.82
29.5	2,216,706	68,894	0.0311	0.9689	71.80
30.5	2,039,046	48,906	0.0240	0.9760	69.57
31.5	1,628,387	24,051	0.0148	0.9852	67.90
32.5	1,580,235	44,667	0.0283	0.9717	66.89
33.5	1,505,495	9,967	0.0066	0.9934	65.00
34.5	1,446,705	18,537	0.0128	0.9872	64.57
35.5	1,445,450	8,385	0.0058	0.9942	63.75
36.5	1,368,287	36,272	0.0265	0.9735	63.38
3/.5	1,316,882	7,636	0.0058	0.9942	61.70
38.5	1,270,140	1,138	0.0009	0.9991	61.34

ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	1,214,325		0.0000	1.0000	61.28
40.5	1,196,942	43,642	0.0365	0.9635	61.28
41.5	1,114,059	452	0.0004	0.9996	59.05
42.5	947,780	12,229	0.0129	0,9871	59.03
43.5	839,054	23,170	0.0276	0.9724	58.26
44.5	795,399	44,293	0.0557	0.9443	56.65
45.5	749,076	31,872	0.0425	0.9575	53.50
46.5	713,159	8,960	0.0126	0.9874	51.22
47.5	691,095	3,678	0.0053	0.9947	50.58
48.5	642,080	15,115	0.0235	0.9765	50.31
49.5	611,044	6,764	0.0111	0.9889	49.13
50.5	555,042		0.0000	1.0000	48.58
51.5	548,397	29,872	0.0545	0.9455	48.58
52.5	524,006	154	0.0003	0.9997	45.94
53.5	523,757	5,015	0.0096	0.9904	45.92
54.5	494,897	3,246	0.0066	0.9934	45.48
55.5	492,689	277	0.0006	0.9994	45.18
56.5	457,049	2,943	0.0064	0.9936	45.16
57.5	290,274	38,852	0.1338	0.8662	44.87
58.5	190,318	24,683	0.1297	0.8703	38.86
59.5	158,839	207	0.0013	0.9987	33.82
60.5	153,501		0.0000	1.0000	33.78
61.5	153,282	1,165	0.0076	0.9924	33.78
62.5	48,821	1,183	0.0242	0.9758	33.52
63.5	27,201		0.0000	1.0000	32.71
64.5	27,100	943	0.0348	0.9652	32.71
65.5	25,785		0.0000	1.0000	31.57
66.5	25,184		0.0000	1.0000	31.57
67.5	24,512		0.0000	1.0000	31.57
68.5	23,697		0.0000	1.0000	31.57
69.5	23,588		0.0000	1.0000	31.57
70.5	23,738		0.0000	1.0000	31.57
71.5	23,738		0.0000	1.0000	31.57
72.5	23,738	5,825	0.2454	0.7546	31,57
73.5	17,914		0.0000	1.0000	23.83
74.5	17,914		0.0000	1.0000	23.83
75.5	17,914		0.0000	1.0000	23.83
76.5	17,914		0.0000	1.0000	23.83
77.5	17,796		0.0000	1.0000	23.83
78.5	17.796		0.0000	1.0000	23.83

ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	17,796		0.0000	1.0000	23 83
80.5	17,798		0.0000	1.0000	23.83
81.5	17,798		0.0000	1.0000	23.83
82.5	17,798		0.0000	1.0000	23.83
83.5	9,536		0.0000	1.0000	23.83
84.5	11,819		0.0000	1.0000	23.83
85.5	11,819		0.0000	1.0000	23.83
86.5	11,819		0.0000	1.0000	23.83
87.5	3,818		0.0000	1.0000	23.83
88.5	3,818		0.0000	1.0000	23.83
89.5	3,818		0.0000	1.0000	23.83
90.5	2,469		0.0000	1.0000	23.83
91.5	2,469		0.0000	1.0000	23.83
92.5	2,469		0.0000	1.0000	23.83
93.5	2,469		0.0000	1.0000	23.83
94.5	4,211	33	0.0079	0.9921	23.83
95.5	4,177		0.0000	1.0000	23.64
96.5	4,177		0.0000	1.0000	23.64
97.5	4,177		0.0000	1.0000	23.64
98.5	4,177		0.0000	1.0000	23.64
99.5	4,177		0.0000	1.0000	23.64
100.5	4,177		0.0000	1.0000	23.64
101.5	5,012		0.0000	1.0000	23.64
102.5	5,012		0.0000	1.0000	23.64
103.5	5,012		0.0000	1.0000	23.64
104.5	5,012		0.0000	1.0000	23.64
105.5	4,862		0.0000	1.0000	23.64
106.5	4,862		0.0000	1.0000	23.64
107.5	4,862		0.0000	1.0000	23.64
108.5	4,862	2	0.0004	0.9996	23.64
109.5	4,860		0.0000	1.0000	23.63
110.5	4,860		0.0000	1.0000	23.63
111.5	4,860	371	0.0763	0.9237	23.63
112.5	4,489		0.0000	1.0000	21.83
113.5	4,489		0.0000	1.0000	21.83
114.5	4,489		0.0000	1.0000	21.83
115.5	4,489		0.0000	1.0000	21.83
116.5	4,489		0.0000	1.0000	21.83
117.5	4,489		0.0000	1.0000	21.83
118.5	4,489		0.0000	1.0000	21.83

ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT BEGIN OF	EXPOSURES AT BEGINNING OF	RETIREMENTS DURING AGE	RETMT	SURV	PCT SURV BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
119.5	2,577		0.0000	1.0000	21.83
120.5	2,577		0.0000	1.0000	21.83
121.5	2,577		0.0000	1.0000	21.83
122.5	2,577		0.0000	1.0000	21.83
123.5	2,577		0.0000	1.0000	21.83
124.5	2,577	9	0.0033	0.9967	21.83
125.5	2,568		0.0000	1.0000	21.75
126.5	2,568		0.0000	1.0000	21.75
127.5	2,568		0.0000	1.0000	21.75
128.5	2,568		0.0000	1.0000	21.75
129.5	835		0.0000	1.0000	21.75
130.5	835		0.0000	1.0000	21.75
131.5	835		0.0000	1.0000	21.75
132.5	835		0.0000	1.0000	21.75
133.5	835		0.0000	1.0000	21.75
134.5	835		0.0000	1.0000	21.75
135.5	835		0.0000	1.0000	21.75
136.5					21.75

ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	13,100,985	1,491	0.0001	0.9999	100.00
0.5	13,463,388	13,688	0.0010	0.9990	99.99
1.5	13,896,876	53,022	0.0038	0.9962	99.89
2.5	13,485,242	100,497	0.0075	0.9925	99.51
3.5	13,253,870	83,145	0.0063	0.9937	98.76
4.5	12,699,131	167,381	0.0132	0.9868	98.14
5.5	12,400,795	136,047	0.0110	0.9890	96.85
6.5	12,160,786	59,270	0.0049	0.9951	95.79
7.5	11,791,454	234,265	0.0199	0.9801	95.32
8.5	11,168,489	144,201	0.0129	0.9871	93.43
9.5	10,205,059	130,906	0.0128	0.9872	92.22
10.5	9,949,609	108,531	0.0109	0.9891	91.04
11.5	9,304,058	46,114	0.0050	0.9950	90.05
12.5	8,625,445	55,680	0.0065	0.9935	89.60
13.5	7,913,763	39,882	0.0050	0.9950	89.02
14.5	7,090,402	128,847	0.0182	0.9818	88.57
15.5	6,459,392	163,297	0.0253	0.9747	86.96
16.5	5,487,782	52,783	0.0096	0.9904	84.76
17.5	5,243,644	44,852	0.0086	0.9914	83.95
18,5	4,213,243	46,317	0.0110	0.9890	83.23
19.5	3,854,540	49,015	0.0127	0.9873	82.32
20.5	3,079,526	11,766	0.0038	0.9962	81.27
21.5	2,679,138	11,278	0.0042	0.9958	80.96
22.5	2,712,558	36,312	0.0134	0.9866	80.62
23.5	2,486,790	43,620	0.0175	0.9825	79.54
24.5	2,236,912	63,403	0.0283	0.9717	78.14
25.5	1,821,364	9,280	0.0051	0.9949	75.93
26.5	1,806,188	31,490	0.0174	0.9826	75.54
27.5	1,735,502	14,034	0.0081	0.9919	74.22
28.5	1,663,342	58,778	0.0353	0.9647	73.62
29.5	1,527,661	68,607	0.0449	0.9551	71.02
30.5	1,360,049	42,352	0.0311	0.9689	67.83
31.5	960,473	24,051	0.0250	0.9750	65.72
32.5	923,652	44,667	0,0484	0.9516	64.08
33.5	848,673	9,791	0.0115	0.9885	60.98
34.5	809,856	18,537	0.0229	0.9771	60.27
35.5	811,551	8,385	0.0103	0.9897	58.89
36.5	780,416	32,776	0.0420	0.9580	58.29
37.5	933,082	7,013	0.0075	0.9925	55.84
38.5	967,149	1,138	0.0012	0.9988	55.42
ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	919 346		0 0000	1 0000	EE 3E
40.5	903 128	41 731	0.0000	1.0000	55.55
41 5	822 375	452	0.0402	0.9336	55.35
42 5	827 709	12 224	0.0009	0.9999	52.79
43 5	797 073	22,222	0.0148	0.9832	52.77
44 5	757,073	25,170 15 504	0.0291	0.9709	51.99
45 5	736 475	10,094 01 070	0.0207	0.9793	50.47
46 5	750,475	31,0/2 7 652	0.0433	0.9567	49.43
40,5		7,032	0.0109	0.9891	47.29
47.5	634 697	3,0/0 15 115	0.0054	0.9946	46.78
40.0	024,007	15,115	0.0242	0.9/58	46.52
49.5	593,634	6,764	0.0114	0.9886	45.40
50.5	538,576		0.0000	1.0000	44.88
51.5	531,930	29,872	0.0562	0.9438	44.88
52.5	499,538	154	0.0003	0.9997	42.36
53.5	500,386	5,015	0.0100	0.9900	42.35
54.5	471,526	3,246	0.0069	0.9931	41.92
55.5	467,970	277	0.0006	0.9994	41.63
56.5	432,329	2,943	0.0068	0.9932	41.61
57.5	265,672	38,852	0.1462	0.8538	41.33
58.5	165,716	24,683	0.1489	0.8511	35.28
59.5	134,236	207	0.0015	0.9985	30.03
60.5	128,899		0.0000	1.0000	29.98
61.5	128,679		0.0000	1.0000	29.98
62.5	25,384	1,183	0.0466	0.9534	29.98
63.5	12,026		0.0000	1.0000	28.58
64.5	17,749	943	0.0531	0.9469	28.58
65.5	16,434		0.0000	1.0000	27.07
66.5	15,833		0.0000	1.0000	27.07
67.5	23,130		0.0000	1.0000	27.07
68.5	22,315		0.0000	1.0000	27.07
69.5	22,206		0.0000	1.0000	27.07
70.5	23,555		0.0000	1.0000	27.07
71.5	23,555		0.0000	1.0000	27.07
72.5	23,555	5,825	0.2473	0.7527	27.07
73.5	17,730	-,	0.0000	1.0000	20 37
74.5	17.730		0.0000	1.0000	20.37
75.5	17.730		0.0000	1.0000	20.37
76.5	17.730		0.0000	1 0000	20.27
77.5	17.613		0.0000	1 0000	20.27
78.5	17.613		0 0000	1 0000	20.37
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ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	17,613		0.0000	1.0000	20.37
80.5	17,613	÷	0.0000	1.0000	20.37
81.5	17,613		0.0000	1.0000	20.37
82.5	17,646		0.0000	1.0000	20.37
83.5	9,384		0.0000	1.0000	20.37
84.5	9,384		0.0000	1.0000	20.37
85.5	9,534		0.0000	1.0000	20.37
86.5	9,534		0.0000	1.0000	20.37
87.5	1,532		0.0000	1.0000	20.37
88.5	1,532		0.0000	1.0000	20.37
89.5	1,532		0.0000	1.0000	20.37
90.5	184		0.0000	1.0000	20.37
91.5	184		0.0000	1.0000	20.37
92.5	184		0.0000	1.0000	20.37
93.5	184		0.0000	1.0000	20.37
94.5	184	33	0.1801	0.8199	20.37
95.5	152		0.0000	1.0000	16.70
96.5	152		0.0000	1.0000	16.70
97.5	152		0.0000	1.0000	16.70
98.5	152		0.0000	1.0000	16.70
99.5	2,436		0.0000	1.0000	16.70
100.5	2,436		0.0000	1.0000	16.70
101.5	2,436		0.0000	1.0000	16.70
102.5	2,436		0.0000	1.0000	16.70
103.5	2,436		0.0000	1.0000	16.70
104.5	2,436		0.0000	1.0000	16.70
105.5	2,285		0.0000	1.0000	16.70
106.5	2,285		0.0000	1.0000	16.70
107.5	2,285		0.0000	1.0000	16.70
108.5	2,285	2	0.0007	0.9993	16.70
109.5	4,025		0.0000	1.0000	16.69
110.5	4,025		0.0000	1.0000	16.69
111.5	4,025	371	0.0921	0.9079	16.69
112.5	3,654		0.0000	1.0000	15.15
113.5	3,654		0.0000	1.0000	15.15
114.5	3,654		0,0000	1.0000	15.15
115.5	3,654		0.0000	1.0000	15.15
116.5	4,489		0.0000	1.0000	15 15
117.5	4,489		0.0000	1.0000	15 15
118.5	4,489		0.0000	1.0000	15 15
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ACCOUNT 311 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1879-2015

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5 120.5 121.5 122.5 123.5 124.5 125.5 126.5 127.5 128.5 129.5 130.5 131.5	2,577 2,577 2,577 2,577 2,577 2,568 2,568 2,568 2,568 2,568 2,568 2,568 2,568	Э	0.0000 0.0000 0.0000 0.0000 0.0033 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.9967 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	15.15 15.15 15.15 15.15 15.15 15.10 15.10 15.10 15.10 15.10 15.10 15.10
132.5 133.5 134.5 135.5 136.5	835 835 835 835		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	15.10 15.10 15.10 15.10 15.10 15.10

AQUA OHIO, INC. ACCOUNT 320 WATER TREATMENT EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 320 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1894-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	54,532,766	8,322	0.0002	0.9998	100.00
0.5	53,591,106	54,961	0.0010	0.9990	99.98
1.5	50,701,736	207,303	0.0041	0.9959	99.88
2.5	44,907,010	35,327	0.0008	0.9992	99.47
3.5	44,277,689	86,309	0.0019	0.9981	99.40
4.5	41,389,963	612,199	0.0148	0.9852	99.20
5.5	38,898,432	158,716	0.0041	0.9959	97.73
6.5	36,279,990	115,294	0.0032	0.9968	97.34
7.5	35,195,404	73,919	0.0021	0.9979	97.03
8.5	34,320,439	71,893	0.0021	0.9979	96.82
9.5	32,622,152	301,911	0.0093	0.9907	96.62
10.5	31,724,939	143,125	0.0045	0.9955	95.73
11.5	31,239,048	74,653	0.0024	0.9976	95.29
12.5	30,826,572	216,403	0.0070	0.9930	95.07
13,5	29,330,342	337,182	0.0115	0.9885	94.40
14.5	28,915,511	118,728	0.0041	0.9959	93.31
15.5	28,953,122	52,495	0.0018	0.9982	92.93
16.5	25,574,931	77,626	0.0030	0.9970	92.76
17.5	25,141,712	89,619	0.0036	0.9964	92.48
18.5	21,491,740	103,213	0.0048	0.9952	92.15
19.5	19,043,832	119,646	0.0063	0.9937	91.71
20.5	15,231,032	22,761	0.0015	0.9985	91.13
21.5	14,203,947	283,861	0.0200	0.9800	91.00
22.5	9,388,666	5,856	0.0006	0.9994	89.18
23.5	8,379,996	31,910	0.0038	0.9962	89.12
24.5	7,359,612	42,338	0.0058	0.9942	88.78
25.5	6,731,778	41,320	0.0061	0.9939	88.27
26.5	6,126,462	35,120	0.0057	0.9943	87.73
27.5	6,089,415	48,575	0.0080	0.9920	87.23
28.5	5,826,809	70,621	0.0121	0.9879	86.53
29.5	5,511,772	35,833	0.0065	0.9935	85.48
30.5	5,120,730	106,002	0.0207	0.9793	84.93
31.5	4,365,618	7,960	0.0018	0.9982	83.17
32.5	4,268,829	80,954	0.0190	0.9810	83.02
33.5	4,144,257	10,689	0.0026	0.9974	81.44
34.5	4,029,580	5,812	0.0014	0.9986	81.23
35.5	3,970,039	35,763	0.0090	0.9910	81.12
36.5	3,871,817	27,202	0.0070	0.9930	80.38
37.5	3,832,119	29,905	0.0078	0.9922	79.82
38.5	3,753,930	11,108	0.0030	0.9970	79.20

ACCOUNT 320 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	3,658,738	30,478	0.0083	0.9917	78.96
40.5	3,614,033	5,840	0.0016	0.9984	78.30
41.5	3,497,788	18,191	0.0052	0,9948	78.18
42.5	3,268,040	5,951	0.0018	0.9982	77.77
43.5	3,067,007	39,060	0.0127	0.9873	77.63
44.5	2,968,698	71,787	0.0242	0.9758	76.64
45.5	2,872,010	117,045	0.0408	0.9592	74.79
46.5	2,733,726	4,603	0.0017	0,9983	71.74
47.5	2,260,766		0.0000	1.0000	71.62
48.5	2,240,217	68,705	0.0307	0.9693	71.62
49.5	2,166,520	2,567	0.0012	0.9988	69.42
50.5	2,093,711	925	0.0004	0.9996	69.34
51.5	2,017,742	39,546	0.0196	0.9804	69.31
52.5	1,963,273	10,467	0.0053	0.9947	67.95
53.5	1,897,024	2,973	0.0016	0.9984	67.59
54.5	1,881,953	9,326	0.0050	0.9950	67.48
55.5	1,779,121	7,475	0.0042	0,9958	67.15
56.5	1,769,772	4,350	0.0025	0.9975	66.87
57.5	1,247,318		0.0000	1.0000	66.70
58.5	760,869	16,388	0.0215	0.9785	66.70
59.5	738,511	18,319	0.0248	0.9752	65.27
60.5	705,409	29,046	0.0412	0.9588	63.65
61.5	640,007		0.0000	1.0000	61.03
62.5	328,757		0.0000	1.0000	61.03
63.5	324,569		0.0000	1.0000	61.03
64.5	323,643		0.0000	1.0000	61.03
65.5	323,643		0.0000	1.0000	61.03
66.5	323,643		0.0000	1.0000	61.03
67.5	322,771		0.0000	1.0000	61.03
68.5	322,771		0.0000	1.0000	61.03
69.5	322,771		0.0000	1.0000	61.03
70.5	322,771		0.0000	1.0000	61.03
71.5	322,455		0.0000	1.0000	61.03
72.5	322,455		0.0000	1.0000	61.03
73.5	322,455		0.0000	1.0000	61.03
74.5	322,455		0.0000	1.0000	61.03
75.5	322,455	8,906	0.0276	0.9724	61.03
76.5	313,514	601	0.0019	0.9981	59.34
/7.5	312,914	533	0.0017	0.9983	59.23
78.5	311,999		0.0000	1.0000	59.13

ACCOUNT 320 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	311,999	509	0.0016	0.9984	59.13
80.5	226,871		0.0000	1.0000	59.03
81.5	226,871	97	0.0004	0.9996	59.03
82.5	226,774	1,056	0.0047	0.9953	59.00
83.5	195,544		0.0000	1.0000	58.73
84.5	195,544		0.0000	1.0000	58.73
85,5	171,465		0.0000	1.0000	58.73
86.5	171,465		0.0000	1.0000	58.73
87.5	171,465		0.0000	1.0000	58.73
88.5	171,465		0.0000	1.0000	58.73
89.5	171,465		0.0000	1.0000	58.73
90.5	171,465		0.0000	1.0000	58.73
91.5	171,465		0.0000	1.0000	58.73
92.5	151,493	1,497	0.0099	0.9901	58.73
93.5	149,995	1,449	0.0097	0.9903	58.15
94.5	148,546		0.0000	1.0000	57.59
95.5	148,296	173	0.0012	0.9988	57.59
96.5	147,511		0.0000	1.0000	57,52
97.5	146,424		0.0000	1.0000	57.52
98.5	127,588		0.0000	1.0000	57.52
99.5	127,588		0.0000	1.0000	57.52
100.5	127,588		0.0000	1.0000	57.52
101.5	127,588		0.0000	1.0000	57.52
102.5	127,588	58,018	0.4547	0.5453	57.52
103.5	69,570		0.0000	1.0000	31.36
104.5	63,640		0.0000	1.0000	31.36
105.5	63,640		0.0000	1.0000	31.36
106.5	63,640		0.0000	1.0000	31.36
107.5	9,105		0.0000	1.0000	31.36
108.5	9,105		0.0000	1.0000	31.36
109.5	9,105		0.0000	1.0000	31.36
110.5	9,105		0.0000	1.0000	31.36
111.5	9,105		0.0000	1.0000	31.36
112.5	9,105		0.0000	1.0000	31.36
113.5	9,105		0.0000	1.0000	31.36
114.5	9,105		0.0000	1.0000	31.36
115.5	9,105		0.0000	1.0000	31.36
116.5	9,105		0.0000	1.0000	31.36
117.5	9,105		0.0000	1.0000	31.36
118.5	9,105		0.0000	1.0000	31,36

ACCOUNT 320 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1894-2015		EXPER	RIENCE BAN	D 1917-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5 120.5 121.5	9,105 9,105		0.0000 0.0000	1.0000 1.0000	31.36 31.36 31.36

ACCOUNT 320 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1894-2015

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AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	46,349,288	8,322	0.0002	0.9998	100.00
0.5	46,186,301	54,095	0.0012	0.9988	99.98
1.5	43,895,020	190,808	0.0043	0.9957	99.86
2.5	38,159,341	33,353	0.0009	0.9991	99.43
3.5	38,020,613	58,320	0.0015	0.9985	99.34
4.5	35,533,688	596,397	0.0168	0,9832	99.19
5.5	33,490,914	137,114	0.0041	0.9959	97.53
6.5	31,810,009	108,994	0.0034	0.9966	97.13
7.5	30,880,340	57,016	0.0018	0.9982	96.79
8.5	29,966,291	58,762	0.0020	0.9980	96.62
9.5	28,388,097	288,267	0.0102	0.9898	96.43
10.5	27,575,449	96,707	0.0035	0.9965	95.45
11.5	27,239,431	73,419	0.0027	0.9973	95.11
12.5	26,884,617	215,952	0.0080	0.9920	94.86
13.5	25,405,046	337,182	0.0133	0.9867	94.09
14.5	25,090,716	115,414	0.0046	0.9954	92.85
15.5	25,163,089	48,772	0.0019	0.9981	92.42
16.5	21,925,709	77,626	0.0035	0.9965	92.24
17.5	21,743,087	86,655	0.0040	0.9960	91.91
18.5	18,189,100	79,267	0.0044	0.9956	91.55
19.5	15,784,237	114,943	0.0073	0.9927	91.15
20.5	11,996,879	22,761	0.0019	0.9981	90.48
21.5	11,006,429	229,558	0.0209	0.9791	90.31
22.5	6,754,320	5,856	0.0009	0.9991	88.43
23.5	5,747,392	30,708	0.0053	0.9947	88.35
24.5	4,749,733	41,688	0.0088	0.9912	87.88
25.5	4,284,833	15,874	0.0037	0.9963	87.11
26.5	3,708,241	34,408	0.0093	0,9907	86.79
27.5	3,692,863	29,844	0.0081	0.9919	85.98
28.5	3,494,271	23,576	0.0067	0.9933	85.29
29.5	3,239,333	31,210	0.0096	0.9904	84.71
30.5	2,949,221	104,187	0.0353	0.9647	83.89
31.5	2,198,522	6,671	0.0030	0.9970	80.93
32.5	2,746,269	36,753	0.0134	0.9866	80.68
33.5	3,252,494	10,689	0.0033	0.9967	79.60
34.5	3,148,067	5,812	0.0018	0.9982	79.34
35.5	3,104,122	35,239	0.0114	0.9886	79.20
36.5	3,049,036	27,202	0.0089	0.9911	78.30
37.5	3,444,627	29,905	0.0087	0.9913	77.60
38.5	3,393,296	11,108	0.0033	0.9967	76.93

ACCOUNT 320 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	3,327,726	30,478	0.0092	0.9908	76.67
40.5	3,283,021	5,840	0.0018	0.9982	75.97
41.5	3,166,776	18,191	0.0057	0.9943	75.84
42.5	2,937,900	5,951	0.0020	0.9980	75.40
43.5	2,736,867	39,060	0.0143	0.9857	75,25
44.5	2,638,908	71,787	0.0272	0.9728	74.17
45.5	2,542,220	117,045	0.0460	0.9540	72.16
46.5	2,404,252	4,603	0.0019	0.9981	68.83
47.5	1,931,292		0.0000	1.0000	68.70
48.5	1,910,743	68,705	0.0360	0.9640	68.70
49.5	1,837,046	2,567	0.0014	0.9986	66.23
50.5	1,764,237	486	0.0003	0.9997	66.14
51.5	1,688,742	39,339	0.0233	0.9767	66.12
52.5	1,634,480	9,832	0.0060	0.9940	64.58
53.5	1,569,248	2,973	0.0019	0.9981	64.19
54.5	1,554,176	3,589	0.0023	0.9977	64.07
55.5	1,542,302	7,475	0.0048	0.9952	63.92
56.5	1,532,953	4,350	0.0028	0.9972	63.61
57.5	1,010,499		0.0000	1.0000	63.43
58.5	563,369	16,388	0.0291	0.9709	63.43
59.5	541,011	18,319	0.0339	0.9661	61.59
60.5	532,593	29,046	0.0545	0.9455	59.50
61.5	467,191		0.0000	1.0000	56.26
62.5	155,941		0.0000	1.0000	56.26
63.5	151,754		0.0000	1.0000	56.26
64.5	150,827		0.0000	1.0000	56.26
65.5	150,827		0.0000	1.0000	56.26
66.5	150,827		0.0000	1.0000	56.26
67.5	170,461		0.0000	1.0000	56.26
68.5	170,461		0.0000	1.0000	56.26
69.5	170,461		0.0000	1.0000	56.26
70.5	170,710		0.0000	1.0000	56.26
71.5	171,006		0.0000	1.0000	56.26
72.5	172,094		0.0000	1.0000	56.26
/3.5	191,746		0.0000	1.0000	56.26
74.5	191,746		0.0000	1.0000	56.26
/5.5	191,746	8,906	0.0464	0.9536	56.26
/6.5	182,806	601	0.0033	0.9967	53.64
//.5	182,205	533	0.0029	0.9971	53.47
/8.5	181,291		0.0000	1.0000	53.31

ACCOUNT 320 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-20	15
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EXPERIENCE BAND 1991-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	187,394	509	0.0027	0.9973	53.31
80.5	102,266		0.0000	1.0000	53.17
81.5	102,266	97	0.0009	0.9991	53.17
82.5	217,669	1,056	0.0049	0.9951	53.12
83.5	186,439		0.0000	1.0000	52.86
84.5	186,439		0.0000	1.0000	52.86
85.5	162,360		0.0000	1.0000	52.86
86.5	162,360		0.0000	1.0000	52.86
87.5	162,360		0.0000	1.0000	52.86
88.5	162,360		0.0000	1.0000	52.86
89.5	162,360		0.0000	1.0000	52.86
90.5	162,360		0.0000	1.0000	52.86
91.5	162,360		0.0000	1.0000	52.86
92.5	142,388	1,497	0.0105	0.9895	52.86
93.5	140,890	1,449	0.0103	0.9897	52.30
94.5	139,441		0.0000	1.0000	51.76
95.5	139,191	173	0.0012	0.9988	51.76
96.5	147,511		0.0000	1.0000	51.70
97.5	146,424		0.0000	1.0000	51.70
98.5	127,588		0.0000	1.0000	51.70
99.5	127,588		0.0000	1.0000	51.70
100.5	127,588		0.0000	1.0000	51.70
101.5	127,588		0.0000	1.0000	51.70
102.5	127,588	58,018	0.4547	0.5453	51.70
103.5	69,570		0.0000	1.0000	28.19
104.5	63,640		0.0000	1.0000	28.19
105.5	63,640		0.0000	1.0000	28.19
106.5	63,640		0,0000	1.0000	28.19
107.5	9,105		0.0000	1.0000	28.19
108.5	9,105		0.0000	1.0000	28.19
109.5	9,105		0.0000	1.0000	28.19
110.5	9,105		0.0000	1.0000	28.19
111.5	9,105		0.0000	1.0000	28.19
112.5	9,105		0.0000	1.0000	28.19
113.5	9,105		0.0000	1.0000	28.19
114.5	9,105		0.0000	1.0000	28.19
115.5	9,105		0.0000	1.0000	28.19
116.5	9,105		0.0000	1.0000	28.19
117.5	9,105		0.0000	1.0000	28.19
118.5	9,105		0.0000	1.0000	28.19

6

ACCOUNT 320 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1894-2015		EXPER	IENCE BAND	1991-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5 120.5 121.5	9,105 9,105		0.0000 0.0000	1.0000 1.0000	28.19 28.19 28.19

AQUA OHIO, INC. ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1887-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	18,883,547		0.0000	1.0000	100.00
0.5	18,482,422		0.0000	1.0000	100.00
1.5	18,466,346	2,389	0.0001	0.9999	100.00
2.5	18,061,686	-	0.0000	1.0000	99.99
3.5	17,934,320	58,187	0.0032	0.9968	99.99
4.5	17,796,559	3,943	0.0002	0.9998	99.66
5.5	15,751,294	400	0.0000	1.0000	99.64
6.5	15,752,920	2,627	0.0002	0.9998	99.64
7.5	14,306,524	7,323	0.0005	0.9995	99.62
8.5	13,912,772	11,152	0.0008	0.9992	99.57
9.5	12,863,491	9,564	0.0007	0.9993	99.49
10.5	12,854,103	17,935	0.0014	0.9986	99.42
11.5	12,741,933	10,357	0.0008	0.9992	99.28
12.5	11,730,498	6,904	0.0006	0.9994	99.20
13.5	11,486,927	7,369	0.0006	0.9994	99.14
14.5	9,717,425		0.0000	1.0000	99.08
15.5	9,705,935		0.0000	1.0000	99.08
16.5	9,636,102		0.0000	1.0000	99.08
17.5	9,935,689	582	0.0001	0.9999	99.08
18.5	7,438,495	1,032	0.0001	0.9999	99.07
19.5	7,435,174	160,897	0.0216	0.9784	99.06
20.5	7,268,111	1,094	0.0002	0.9998	96.91
21.5	7,238,034	5,104	0.0007	0.9993	96.90
22.5	7,121,552	2,261	0.0003	0.9997	96.83
23.5	6,152,754	103	0.0000	1.0000	96.80
24.5	6,142,397	5,291	0.0009	0.9991	96.80
25.5	4,901,415	777	0.0002	0.9998	96.71
26.5	4,443,968	8,012	0.0018	0.9982	96.70
27.5	3,686,542	588	0.0002	0.9998	96.52
28.5	4,003,688	1,283	0.0003	0.9997	96.51
29.5	3,631,665	5,813	0.0016	0.9984	96.48
30.5	3,612,546	991	0.0003	0.9997	96.32
31.5	3,612,669	5,361	0.0015	0.9985	96.30
32.5	3,350,755	1,819	0.0005	0.9995	96.15
33.5	3,350,065	4,978	0.0015	0.9985	96.10
34.5	2,486,547	8,661	0.0035	0.9965	95.96
35.5	2,476,818	120,605	0.0487	0.9513	95.62
36.5	2,355,292		0.0000	1.0000	90.97
37.5	2,278,281	774	0.0003	0.9997	90.97
38.5	2,330,979	8,026	0.0034	0.9966	90.94

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1887-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
20 E	0 000 0E0	0.4	0 0000	1 0000	00 60
39.5	2,322,903	0 00/	0.0000	1.0000	90.62
40.5	2,102,735 2 11/ 135	5,004	0.0048	1 0000	90.02
41.5	2,114,133	מדד נ	0.0000	1.0000	90.21
42.5	1,700,302 1 70% CD3	3,779	0.0021	0.9979	90.21
43.5	1,784,803	17,044	0.0098	0.9904	90.02
44.3	1,400,700	סכ י נוד כ	0.0003	0.9997	09.10
40.0	1,2J2,229 CAO OOC C	2,711	0.0019	0,9901	07.13
40.5	1,399,043	3,200	0.0023	0,9977	88.90
47.5	1,303,103	1,150	0.0008	0.9992	68./D
40.3	1,299,101		0.0000	1.0000	00.00
49.5	1,289,746		0.0000	1.0000	88.68
50.5	1,283,715		0.0000	1.0000	88.68
51.5	1,149,354		0.0000	1.0000	88.68
52.5	1,074,570	49,187	0.0458	0.9542	88.68
53.5	935,943	2,321	0.0025	0.9975	84.62
54.5	933,622	39	0.0000	1.0000	84.41
55.5	933,583		0.0000	1.0000	84.41
56.5	802,373		0.0000	1.0000	84.41
57.5	637,060		0.0000	1.0000	84.41
58.5	551,749	183	0.0003	0.9997	84.41
59.5	551,566	27,234	0.0494	0.9506	84.38
60.5	523,532		0.0000	1.0000	80.21
61.5	272,298	5,526	0.0203	0.9797	80.21
62.5	266,772		0.0000	1,0000	78.58
63.5	263,390		0.0000	1.0000	78.58
64.5	184,057		0.0000	1.0000	78.58
65.5	183,808		0.0000	1.0000	78.58
66.5	183,808		0.0000	1.0000	78.58
67.5	183,808		0.0000	1.0000	78.58
68.5	183,808		0.0000	1.0000	78.58
69.5	152.594		0.0000	1,0000	78.58
70.5	150,913		0.0000	1.0000	78,58
71.5	150,185		0.0000	1.0000	78.58
72.5	150,185		0.0000	1.0000	78.58
73.5	91.956		0.0000	1,0000	78.58
74.5	91,956		0.0000	1.0000	78.58
75.5	91,956		0.0000	1.0000	78.58
76.5	91,956		0.0000	1,0000	78.58
77.5	76.609		0.0000	1.0000	78.58
78.5	76,609		0.0000	1.0000	78.58

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1887-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	57.977		0.0000	1 0000	78 58
80.5	57 977	9 000	0 1552	0 8448	78.58
81.5	48,977	5,000	0 0000	1 0000	66 39
82.5	48,977		0.0000	1.0000	66.39
83.5	48,977		0.0000	1,0000	66.39
84.5	48,977		0.0000	1.0000	66.39
85.5	48,977		0.0000	1.0000	66.39
86.5	48,977		0.0000	1.0000	66.39
87.5	48,977		0.0000	1.0000	66.39
88.5	48,977		0.0000	1.0000	66.39
89.5	48,977		0.0000	1.0000	66.39
90.5	48,977		0.0000	1.0000	66.39
91.5	48,977		0.0000	1.0000	66.39
92.5	48,977		0,0000	1.0000	66.39
93.5	48,977		0.0000	1.0000	66.39
94.5	48,977	17,858	0.3646	0.6354	66.39
95.5	30,430		0.0000	1.0000	42.18
96.5	30,430		0.0000	1.0000	42.18
97.5	30,430		0.0000	1.0000	42.18
98.5	30,430		0.0000	1.0000	42.18
99.5	30,430		0.0000	1.0000	42.18
100.5	836		0.0000	1.0000	42.18
101.5	836		0.0000	1.0000	42,18
102.5	836		0.0000	1.0000	42.18
103.5	836		0.0000	1.0000	42.18
104.5	836		0.0000	1.0000	42.18
105.5	836		0.0000	1.0000	42.18
100.5	836		0.0000	1.0000	42.18
107.5	228		0.0000	1.0000	42.18 42.18
109 5	220		0 0000	3 0000	40.10
110 5	228		0.0000	1.0000	42,10
111 5	228		0.0000	1 0000	42.10
112 5	223		0.0000	1 0000	42.18
113.5	228			1 0000	42.18
114.5	228		0.0000	1.0000	42.18
115.5	228		0.0000	1.0000	42.18
116.5	228		0.0000	1.0000	42.18
117.5	228		0.0000	1,0000	42.18
118.5	228		0.0000	1.0000	42.18

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1887-2015

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	228		0.0000	1.0000	42.18
120.5	228		0.0000	1.0000	42.18
121.5	228		0.0000	1.0000	42.18
122.5	228		0.0000	1.0000	42.18
123.5	228		0.0000	1.0000	42.18
124.5	228		0.0000	1.0000	42.18
125.5	228		0.0000	1,0000	42.18
126.5					42.18

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1889-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	12,540,217		0.0000	1.0000	100.00
0.5	13,381,472		0.0000	1.0000	100.00
1.5	14,030,821	2,389	0.0002	0.9998	100.00
2.5	14,409,786		0.0000	1.0000	99.98
3.5	14,295,301	54,070	0.0038	0.9962	99.98
4.5	14,531,828		0.0000	1.0000	99.60
5.5	12,666,757	400	0.0000	1.0000	99.60
6.5	12,674,911		0.0000	1.0000	99.60
7.5	11,550,008	6,338	0.0005	0.9995	99.60
8.5	11,160,528	11,152	0.0010	0.9990	99.55
9.5	10,961,863	6,087	0.0006	0.9994	99.45
10.5	10,959,620	17,515	0.0016	0.9984	99.39
11.5	10,849,349	8,876	0.0008	0.9992	99.23
12.5	10,005,874	509	0.0001	0.9999	99,15
13.5	9,769,117	4,188	0.0004	0.9996	99.15
14.5	8,005,255		0.0000	1.0000	99.10
15.5	7,993,856		0.0000	1.0000	99.10
16.5	7,931,901		0.0000	1.0000	99.10
17.5	8,232,313		0.0000	1.0000	99.10
18.5	5,735,701	142	0.0000	1.0000	99.10
19.5	6,045,125	160,295	0.0265	0.9735	99.10
20.5	5,884,895		0.0000	1.0000	96.47
21.5	5,859,553	5,104	0.0009	0.9991	96.47
22.5	5,818,602	1,510	0.0003	0.9997	96.39
23.5	4,971,582	103	0.0000	1.0000	96.37
24.5	4,969,812	3,655	0.0007	0.9993	96.36
25.5	3,737,630		0.0000	1.0000	96.29
26.5	3,365,679	4,975	0.0015	0.9985	96.29
27.5	2,632,390	588	0.0002	0.9998	96.15
28.5	3,038,976	1,283	0.0004	0.9996	96.13
29.5	2,666,953	5,813	0.0022	0.9978	96.09
30.5	2,647,834		0.0000	1.0000	95.88
31.5	2,780,158	4,118	0.0015	0.9985	95.88
32.5	2,685,986	1,819	0.0007	0.9993	95.74
33.5	2,770,607	4,978	0.0018	0.9982	95.67
34.5	1,907,089	8,661	0.0045	0.9955	95.50
35.5	1,926,355	120,605	0.0626	0.9374	95.07
36.5	2,080,652		0.0000	1.0000	89.11
37.5	2,003,640	774	0.0004	0.9996	89.11
38.5	2,060,358	8,026	0.0039	0.9961	89.08

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
20 F	0 1 0 0 0 C	. .			
39.5	2,132,836	84	0.0000	1.0000	88.73
40.5	1,973,366	9,884	0.0050	0.9950	88.73
41.5	1,924,762		0.0000	1.0000	88,28
42.5	1,599,009	3,779	0.0024	0.9976	88.28
43.5	1,595,230	17,044	0.0107	0.9893	88.08
44.5	1,302,548	458	0.0004	0.9996	87.14
45.5	1,295,771	2,711	0.0021	0.9979	87.10
46.5	1,244,094	3,266	0.0026	0.9974	86.92
47.5	1,207,356	1,156	0.0010	0.9990	86.69
48.5	1,202,180		0.0000	1.0000	86.61
49.5	1,192,264		0.0000	1.0000	86.61
50.5	1,186,233		0.0000	1.0000	86.61
51.5	1,051,872		0.0000	1.0000	86.61
52.5	992,435	49,187	0.0496	0.9504	86.61
53.5	853,808	2,321	0.0027	0.9973	82.32
54.5	870,119	39	0.0000	1.0000	82.09
55.5	870,080		0.0000	1.0000	82.09
56.5	744,396		0.0000	1.0000	82.09
57.5	579,084		0.0000	1.0000	82.09
58.5	493,773	183	0.0004	0.9996	82.09
59.5	493,589	27,234	0.0552	0.9448	82.06
60.5	465,555	··· , ··· ··	0.0000	1.0000	77.53
61.5	214,321	5.526	0.0258	0.9742	77.53
62.5	208,795		0.0000	1.0000	75.53
63.5	205,413		0.0000	1.0000	75.53
64.5	126,080		0.0000	1.0000	75 53
65.5	125,831		0.0000	1.0000	75 53
66.5	125,831		0 0000	1 0000	75 53
67.5	125,831		0 0000	1 0000	75 53
68.5	125,831		0.0000	1.0000	75.53
69 5	94 617		0 0000	1 0000	
70 5	94,017 93 676		0.0000	1.0000	75.53
70.5	53,020		0.0000	1.0000	/5.53
74.5	22,037		0.0000	1.0000	/5.53
14.0 72 °	32,831		0.0000	T.0000	/5.53
13.0	34,009		0.0000	1.0000	75.53
74.5	34,669		0.0000	1.0000	75.53
/5.5	/3,263		0.0000	1.0000	75.53
/0.5 77 c	/3,263		0.0000	1.0000	75.53
//.5	57,916		0.0000	1.0000	75.53
78.5	57,916		0.0000	1.0000	75.53

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
70 5	20.002				
79.5	39,283	0 000	0.0000	1.0000	75.53
80.5	39,283	9,000	0.2291	0.7709	75.53
81.5	30,283		0.0000	1.0000	58.23
82.5	30,891		0.0000	1.0000	58,23
83.5	30,891		0.0000	1.0000	58,23
84.5	30,891		0.0000	1.0000	58.23
85.5	30,891		0.0000	1.0000	58.23
86.5	30,891		0.0000	1.0000	58.23
87.5	30,891		0.0000	1.0000	58.23
88.5	30,891		0.0000	1.0000	58.23
89.5	30,891		0.0000	1.0000	58.23
90.5	30,891		0.0000	1.0000	58.23
91.5	30,891		0.0000	1.0000	58.23
92.5	30,891		0.0000	1.0000	58.23
93.5	30,891		0.0000	1.0000	58,23
94.5	30,891		0.0000	1.0000	58.23
95.5	30,201		0.0000	1.0000	58.23
96.5	30,201		0.0000	1.0000	58.23
97.5	30,201		0.0000	1.0000	58.23
98.5	30,201		0.0000	1.0000	58.23
99.5	30,201		0.0000	1.0000	58.23
100.5	608		0.0000	1.0000	58.23
101.5	836		0.0000	1.0000	58.23
102.5	836		0.0000	1.0000	58.23
103,5	836		0.0000	1.0000	58.23
104.5	836		0.0000	1.0000	58.23
105.5	836		0.0000	1.0000	58.23
106.5	836		0.0000	1.0000	58.23
107.5	228		0.0000	1.0000	58.23
108.5	228		0.0000	1.0000	58.23
109.5	228		0.0000	1.0000	58 23
110.5	228		0.0000	1.0000	58.23
111.5	228		0.0000	1.0000	58.23
112.5	228		0.0000	1.0000	58.23
113.5	228		0.0000	1.0000	58.23
114.5	228		0.0000	1.0000	58 23
115.5	228		0.0000	1.0000	58 23
116.5	220		0 0000	1 0000	58 22
117 5	220		0.0000	1 0000	50.20
118.5	220		0 0000	1 0000	58 23
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ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2015

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	228		0.0000	1.0000	58.23
120.5	228		0.0000	1.0000	58.23
121.5	228		0.0000	1.0000	58.23
122.5	228		0.0000	1.0000	58.23
123.5	228		0.0000	1.0000	58.23
124.5	228		0.0000	1.0000	58.23
125.5	228		0.0000	1.0000	58.23
126.5					58.23

AQUA OHIO, INC. ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1888-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	218,649,736	2,228	0.0000	1.0000	100.00
0.5	206,368,946	13,359	0.0001	0.9999	100.00
1.5	194,149,093	11,164	0.0001	0.9999	99.99
2.5	188,398,488	23,671	0.0001	0.9999	99.99
3.5	183,417,703	28,753	0.0002	0.9998	99.97
4.5	180,610,799	236,958	0.0013	0.9987	99.96
5.5	174,982,356	89,048	0.0005	0.9995	99.83
6.5	169,946,755	142,883	0.0008	0.9992	99.78
7.5	161,189,748	136,601	0.0008	0.9992	99.69
8.5	151,504,999	93,706	0.0006	0.9994	99.61
9.5	141,384,475	118,685	0.0008	0.9992	99.55
10.5	133,231,801	158,897	0.0012	0.9988	99.46
11.5	125,332,811	40,280	0.0003	0.9997	99.34
12.5	116,250,911	99,658	0.0009	0.9991	99.31
13.5	106,799,419	16,988	0.0002	0.9998	99.23
14.5	101,560,893	105,840	0.0010	0.9990	99.21
15,5	91,620,281	56,328	0.0006	0.9994	99.11
16.5	81,184,032	59,788	0.0007	0.9993	99.05
17.5	78,172,861	43,891	0.0006	0.9994	98,97
18.5	74,816,918	179,132	0.0024	0.9976	98.92
19.5	69,572,923	14,472	0.0002	0.9998	98.68
20.5	65,174,429	33,116	0.0005	0.9995	98.66
21.5	61,058,280	101,459	0.0017	0.9983	98.61
22.5	57,109,614	303,366	0.0053	0.9947	98.45
23.5	50,009,486	6,811	0.0001	0.9999	97.92
24.5	47,697,214	79,616	0.0017	0.9983	97.91
25.5	45,403,455	103,494	0.0023	0.9977	97.75
26.5	43,119,936	42,192	0.0010	0.9990	97.52
27.5	40,139,279	4,280	0.0001	0.9999	97.43
28.5	37,701,707	48,393	0.0013	0.9987	97.42
29.5	35,534,542	20,721	0.0006	0.9994	97.29
30.5	32,841,947	7,075	0.0002	0.9998	97.24
31.5	31,844,559	10,822	0.0003	0.9997	97.22
32.5	30,736,316	23,350	0.0008	0.9992	97.18
33.5	30,426,886	12,989	0.0004	0.9996	97.11
34.5	29,805,304	9,125	0.0003	0.9997	97.07
35.5	28,785,087	64,152	0.0022	0.9978	97.04
36.5	27,471,911	23,374	0.0009	0.9991	96.82
37.5	25,789,367	40,363	0,0016	0.9984	96.74
38.5	24,834,782	22,211	0.0009	0.9991	96.59

ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	24,173,082	41,514	0.0017	0.9983	96.50
40.5	23,435,352	12,859	0.0005	0.9995	96.34
41.5	22,016,277	56,388	0.0026	0.9974	96.28
42.5	20,344,928	75,833	0.0037	0.9963	96.04
43.5	19,076,895	24,778	0.0013	0.9987	95.68
44.5	18,221,344	13,558	0.0007	0.9993	95.55
45.5	17,469,928	96,415	0.0055	0.9945	95.48
46.5	16,151,468	37,744	0,0023	0.9977	94.96
47.5	15,472,303	23,002	0.0015	0.9985	94.73
48.5	14,566,416	15,055	0.0010	0.9990	94.59
49.5	13,959,276	32,847	0.0024	0.9976	94.50
50.5	13,066,370	20,234	0.0015	0.9985	94.27
51.5	12,302,783	19,691	0.0016	0.9984	94.13
52.5	11,666,377	73,655	0.0063	0.9937	93.98
53.5	10,981,688	24,312	0.0022	0.9978	93.38
54.5	10,471,737	34,279	0.0033	0.9967	93.18
55.5	9,885,294	14,501	0.0015	0.9985	92.87
56.5	8,732,474	26,979	0.0031	0.9969	92.74
57.5	8,074,099	29,540	0.0037	0.9963	92.45
58.5	7,452,051	19,877	0.0027	0.9973	92.11
59.5	6,991,720	9,128	0.0013	0.9987	91.87
60.5	6,565,879	10,736	0.0016	0.9984	91.75
61.5	6,152,609	2,339	0.0004	0.9996	91.60
62.5	5,569,915	11,554	0.0021	0.9979	91.56
63.5	5,323,174	9,700	0.0018	0.9982	91.37
64.5	5,009,750	211,573	0.0422	0.9578	91.20
65.5	4,599,212	585,242	0.1272	0.8728	87.35
66.5	3,885,832	22,386	0.0058	0.9942	76.24
67.5	3,725,276	25,494	0.0068	0.9932	75.80
68.5	3,602,839	3,558	0.0010	0.9990	75.28
69.5	3,553,622	12,541	0.0035	0.9965	75.20
70.5	3,487,749	26,650	0.0076	0.9924	74.94
71.5	3,446,724	2,183	0.0006	0.9994	74.37
72.5	3,437,848	19,438	0.0057	0.9943	74.32
73.5	3,352,966	1,390	0.0004	0.9996	73.90
74.5	3,318,329	5,085	0.0015	0.9985	73.87
75.5	3,270,942	85,155	0.0260	0.9740	73.76
76.5	3,141,767	9,929	0.0032	0.9968	71.84
77.5	3,120,049	21,292	0.0068	0.9932	71.61
78.5	3,054,737	20,807	0.0068	0.9932	71.12

ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79 5	3 009 744	31 607	0 0105	0 9895	70 64
80.5	2,274,970	31,007	0.0002	0.9998	69 89
81.5	2,269,012	1 556	0 0007	0 9993	69 88
82.5	2,264,007	35,322	0 0156	0 9844	69.83
83.5	2,225,014	51,736	0.0233	0.9767	68 74
84.5	2,144,013	5,505	0.0026	0.9974	67.15
85.5	1,753,763	10,803	0.0062	0.9938	66 97
86.5	1,682,296	9,681	0.0058	0.9942	66.56
87.5	1,574,956	13.306	0.0084	0.9916	66.18
88.5	661,104	9,749	0.0147	0.9853	65.62
89.5	627,817	12,473	0.0199	0.9801	64.65
90.5	561,719	2,800	0.0050	0.9950	63.37
91.5	449,083	7,318	0.0163	0.9837	63.05
92.5	415,085	2,440	0.0059	0.9941	62.02
93.5	405,698	3,195	0.0079	0.9921	61.66
94.5	350,107	454	0.0013	0,9987	61.17
95.5	333,680	2,880	0.0086	0.9914	61.09
96.5	324,947	3,860	0.0119	0.9881	60.57
97.5	269,009	410	0.0015	0.9985	59,85
98.5	241,993	901	0.0037	0.9963	59.76
99.5	231,536	392	0.0017	0.9983	59.53
100.5	223,819	129	0.0006	0.9994	59.43
101.5	213,907	371	0.0017	0.9983	59.40
102.5	208,284	24	0.0001	0.9999	59.30
103.5	195,044	153	0.0008	0.9992	59.29
104.5	194,456	160	0.0008	0.9992	59.24
105.5	193,990	746	0.0038	0.9962	59.19
106.5	193,081	16,217	0.0840	0.9160	58.97
107.5	171,431	5,172	0.0302	0.9698	54.01
108.5	165,281	. 978	0.0059	0.9941	52.38
109.5	161,815	6,330	0.0391	0.9609	52.07
110.5	153,299		0.0000	1.0000	50.04
111.5	152,399	1,919	0.0126	0.9874	50.04
112.5	148,133	7,934	0.0536	0.9464	49.41
113.5	139,849	3,750	0.0268	0.9732	46.76
114.5	132,495	280	0.0021	0.9979	45.51
115.5	131,886	1,048	0.0079	0.9921	45.41
116.5	130,704	76	0.0006	0.9994	45.05
117.5	128,419		0.0000	1.0000	45.02
118.5	128,419		0.0000	1.0000	45.02

ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2015

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5 120.5 121.5 122.5 123.5 124.5 125.5 126.5	126,884 124,808 123,219 124,919 121,130 111,663 109,261 83,267	614 3,703 2,402 25,994 1,783	0.0048 0.0000 0.0000 0.0306 0.0215 0.2379 0.0214	0.9952 1.0000 1.0000 0.9694 0.9785 0.7621 0.9786	45.02 44.80 44.80 44.80 44.80 43.43 42.50 32.39
127.5					31.70

ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1888-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	170 473 011		0 0000	1 0000	100 00
0.5	160 487 987	0 501	0.0000	1.0000	100.00
1 5	150 552 695	C 001	0.0001	0.99999	100.00
1.J 2 5	1/9 110 201	10,091	0.0000	1.0000	99.99
2.5	146,118,391 146,118,391	12,770	0.0001	0.9999	99.99
3.3	145,699,095	23,165	0.0002	0.9998	99.98
4.J r r	143,559,670	233,565	0.0016	0.9984	99.97
5.5	142,702,840	/9,592	0.0006	0.9994	99.81
0.5	138,841,103	141,365	0.0010	0.9990	99.75
7.5	131,234,64/	131,160	0.0010	0.9990	99.65
8.5	121,999,529	93,706	0.0008	0.9992	99.55
9.5	112,738,597	112,049	0.0010	0.9990	99.47
10.5	105,720,857	158,170	0.0015	0.9985	99.37
11.5	99,139,035	29,918	0.0003	0.9997	99.22
12.5	91,866,089	99,139	0.0011	0.9989	99.19
13.5	83,634,667	16,794	0.0002	0.9998	99.09
14.5	79,231,629	105,808	0.0013	0.9987	99.07
15.5	70,116,865	55,842	0.0008	0.9992	98.94
16.5	60,996,925	58,001	0.0010	0.9990	98.86
17.5	59,353,812	41,856	0.0007	0.9993	98.76
18.5	57,231,776	179,132	0.0031	0.9969	98.69
19.5	52,792,201	11,321	0.0002	0.9998	98.38
20.5	49,022,914	31,573	0.0006	0.9994	98.36
21.5	45,984,962	101,459	0.0022	0.9978	98.30
22.5	42,685,832	300,828	0.0070	0.9930	98.08
23.5	36,237,736	6,656	0.0002	0.9998	97.39
24.5	34,632,719	51,163	0.0015	0.9985	97.37
25.5	32,841,344	98,994	0.0030	0.9970	97.23
26.5	31,141,303	33,886	0.0011	0.9989	96.94
27.5	28,518,195	3,035	0.0001	0.9999	96.83
28.5	26,461,814	42,958	0.0016	0.9984	96.82
29.5	24,626,038	14,650	0.0006	0.9994	96.66
30.5	22,508,923	4.849	0.0002	0.9998	96 61
31.5	22,821,031	9,288	0.0004	0.9996	96 59
32.5	22,439,068	20,966	0.0009	0.9991	96 55
33.5	22,787,565	12,552	0.0006	0.9994	96.55
34.5	22,620.974	8.208	0.0004	0.9996	96 40
35.5	22,027,189	63,473	0.0029	0.9971	96 37
36.5	21,120.558	23,020	0.0011	0 9989	96 09
37.5	20.072.260	39 795	0 0020	0.9980	95.09 95.99
38.5	19,414,663	00,700 00 150	0.0020	0.9000 N 9989	22.22 QE 00
		الترقيبية والمتفاعة	0.0014	0.2202	22.00

ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	19 080 770	37 956	0 0020	0 9990	95 69
40 5	18 551 650	30,706	0.0020	0.9980	95.09
41.5	17 265 261	55 161	0.0000	0.9969	95.50
42.5	15 758 011	73 070	0.0032	0.9900	99.44
43.5	14 601 108	23 367	0.0040	0,9994	93.14
44 5	13 794 179	7 863	0.0010	0.9984	94.09
45 5	13 116 802	95 261	0.0000	0.9994	94.04
46 5	11 816 449	23,201	0.0073	0.9927	24.49
47.5	11,010,449	27,731 22,422	0.0032	0.9968	93.80
47.5	10 210 172	22,495	0.0020	0.9980	93.50
40.5	10,310,173	14,421	0.0014	0.9986	93.31
49.5	9,751,045	32,847	0.0034	0.9966	93.18
50.5	8,909,216	18,795	0.0021	0.9979	92.87
51.5	8,202,145	18,367	0.0022	0.9978	92.67
52.5	7,581,105	72,854	0.0096	0.9904	92.47
53.5	6,946,078	24,117	0.0035	0.9965	91.58
54.5	6,465,067	33,740	0.0052	0.9948	91.26
55.5	6,723,197	14,406	0.0021	0.9979	90.78
56.5	5,576,472	26,061	0.0047	0.9953	90.59
57.5	4,922,469	24,907	0.0051	0.9949	90.17
58.5	4,308,772	19,178	0.0045	0.9955	89.71
59.5	3,882,272	5,834	0.0015	0.9985	89.31
60.5	4,059,690	10,736	0.0026	0.9974	89.18
61.5	4,316,687	2,339	0.0005	0.9995	88.94
62.5	3,838,193	11,509	0.0030	0.9970	88.89
63.5	4,627,795	9,617	0.0021	0.9979	88.63
64.5	4,356,989	211,540	0.0486	0.9514	88.44
65.5	4,013,528	585,242	0.1458	0.8542	84.15
66.5	3,413,756	22,386	0.0066	0.9934	71.88
67.5	3,280,069	25,494	0.0078	0.9922	71.41
68.5	3,164,579	2,878	0.0009	0.9991	70.85
69.5	3,176,331	12,404	0.0039	0.9961	70.79
70.5	3,134,350	26,650	0.0085	0.9915	70.51
71.5	3,099,178	2.183	0.0007	0.9993	69.91
72.5	3,155,910	19,438	0.0062	0.9938	69.86
73.5	3,099,132	1,344	0.0004	0.9996	69.43
74.5	3,074,563	5,085	0.0017	0 9983	69 40
75.5	3,038,689	85,155	0.0280	0.9720	69.90
76.5	2,919,400	9,834	0 0034	0.9966	67 34
77.5	2,904,363	21 292	0 0073	0 9927	67 10
78.5	2,852.268	20.733	0,0073	0.9927	66 63
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ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	2,807,967	31,607	0.0113	0.9887	66 14
80.5	2.073.498	195	0.0001	0.9999	65.40
81.5	2,067,887	1.556	0.0008	0.9992	65.39
82.5	2,073,734	35,322	0.0170	0,9830	65.34
83.5	2,035,719	51,736	0.0254	0.9746	64.23
84.5	1,957,232	5.371	0.0027	0.9973	62.60
85.5	1,569,462	10,803	0.0069	0,9931	62.42
86.5	1,498,895	9,681	0.0065	0.9935	61.99
87.5	1,393,902	13,306	0.0095	0.9905	61.59
88.5	480,400	9,749	0.0203	0.9797	61.01
89.5	454,003	12,473	0.0275	0.9725	59.77
90.5	418,966	2,784	0.0066	0.9934	58.13
91.5	306,481	7,318	0.0239	0.9761	57.74
92.5	274,692	2,402	0.0087	0.9913	56.36
93.5	265,343	1,656	0.0062	0.9938	55.87
94.5	212,826	226	0.0011	0.9989	55,52
95.5	198,161	2,586	0.0131	0.9869	55.46
96.5	191,311	3,860	0.0202	0.9798	54.74
97.5	135,373	410	0.0030	0.9970	53.63
98.5	112,146	757	0.0067	0.9933	53.47
99.5	107,597	392	0.0036	0.9964	53.11
100.5	108,278	129	0.0012	0.9988	52.92
101.5	98,366	371	0.0038	0.9962	52.85
102.5	208,284	24	0.0001	0.9999	52.65
103.5	195,044	153	0.0008	0.9992	52.65
104.5	194,456	160	0.0008	0.9992	52.61
105.5	193,990	746	0.0038	0.9962	52.56
106.5	193,081	16,217	0,0840	0.9160	52.36
107.5	171,431	5,172	0.0302	0.9698	47.96
108.5	165,281	978	0.0059	0.9941	46.52
109.5	161,815	6,330	0.0391	0.9609	46.24
110.5	153,299		0.0000	1.0000	44.43
111.5	152,399	1,919	0.0126	0.9874	44.43
112,5	148,133	7,934	0.0536	0.9464	43.87
113.5	139,849	3,750	0.0268	0.9732	41.52
114.5	132,495	280	0.0021	0.9979	40.41
115.5	131,886	1,048	0.0079	0.9921	40.32
116.5	130,704	76	0.0006	0.9994	40.00
117.5	128,419		0.0000	1.0000	39.98
118.5	128,419		0.0000	1.0000	39.98

ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2015

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5 120.5 121.5 122.5 123.5 124.5 125.5 126.5	126,884 124,808 123,219 124,919 121,130 111,663 109,261 83,267	614 3,703 2,402 25,994 1,783	0.0048 0.0000 0.0000 0.0000 0.0306 0.0215 0.2379 0.0214	0.9952 1.0000 1.0000 0.9694 0.9785 0.7621 0.9786	39.98 39.79 39.79 39.79 39.79 38.57 37.74 28.76

AQUA OHIO, INC. ACCOUNT 333 SERVICES ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1887-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	50,603,984	594	0.0000	1.0000	100.00
0.5	45,569,991	2,957	0.0001	0.9999	100.00
1.5	42,930,923	3,201	0.0001	0.9999	99.99
2.5	41,168,579	2,093	0.0001	0.9999	99.98
3.5	39,524,010	6,816	0.0002	0.9998	99.98
4.5	38,171,346	2,610	0.0001	0.9999	99.96
5.5	36,469,657	1,157	0.0000	1.0000	99.96
6.5	35,023,716	755	0.0000	1.0000	99.95
7.5	33,136,946	3,449	0.0001	0.9999	99.95
8.5	31,284,852	1,738	0.0001	0.9999	99.94
9.5	29,880,589	9,911	0.0003	0.9997	99.93
10.5	28,533,349	2,073	0.0001	0.9999	99.90
11.5	27,549,036	2,529	0.0001	0.9999	99.89
12.5	26,260,274	15,183	0.0006	0.9994	99.88
13.5	24,978,676	10,475	0.0004	0.9996	99.83
14.5	22,368,565	1,778	0.0001	0.9999	99.79
15.5	20,865,189	1,338	0.0001	0.9999	99.78
16.5	19,554,419	2,438	0.0001	0.9999	99.77
17.5	18,612,377	2,760	0.0001	0.9999	99.76
18.5	17,621,723	16,004	0.0009	0.9991	99.74
19.5	16,600,060	4,247	0.0003	0.9997	99.65
20.5	15,521,197	5,067	0.0003	0.9997	99.63
21.5	14,298,322	3,604	0.0003	0.9997	99.60
22.5	13,380,581	20,778	0.0016	0.9984	99.57
23.5	12,256,053	3,459	0.0003	0.9997	99.42
24.5	11,424,257	29,223	0.0026	0.9974	99.39
25.5	10,486,805	29,494	0.0028	0.9972	99.13
26.5	9,704,200	40,065	0.0041	0,9959	98.85
27.5	8,924,372	59,375	0.0067	0.9933	98.45
28.5	8,189,303	44,035	0.0054	0.9946	97.79
29.5	7,485,877	67,462	0.0090	0.9910	97.27
30.5	6,912,472	47,663	0.0069	0.9931	96.39
31.5	6,468,213	23,367	0.0036	0.9964	95.72
32.5	6,033,042	123,622	0.0205	0.9795	95.38
33.5	5,613,081	74,583	0.0133	0.9867	93.42
34.5	5,180,400	79,968	0,0154	0.9846	92.18
35.5	4,760,109	15,590	0.0033	0.9967	90.76
36.5	4,355,365	15,735	0.0036	0.9964	90.46
37.5	4,165,811	1,559	0.0004	0.9996	90.14
38.5	3,935,416	1,763	0.0004	0.9996	90.10

ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1887-2015

EXPERIENCE BAND 1887-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	3.789.135	7 338	0 0019	0 9981	90.06
40.5	3,681,202	1,719	0.00015	0.9995	20.00
41.5	3,528,267	1 827	0 0005	0.9995	00.05
42.5	3,249,219	5,520	0.0000	0.9980	07.05 90 0A
43.5	3,090,132	5,272	0 0017	0.9983	89 62
44.5	2,884,464	3,696	0 0013	0.9987	89.46
45.5	2,714,685	2,775	0 0010	0.9990	89 35
46.5	2,569,316	6,299	0 0025	0.9975	89.25
47.5	2,417,179	3,147	0 0013	0.9987	89 04
48.5	2,201,092	2,259	0.0010	0.9990	88.92
49.5	2,140,308	3,163	0.0015	0.9985	88.83
50.5	1,926,165	5,253	0.0027	0.9973	88.70
51.5	1,809,177	5,905	0.0033	0.9967	88.46
52.5	1,664,630	22,433	0.0135	0.9865	88.17
53.5	1,516,360	3,881	0.0026	0.9974	86.98
54.5	1,359,642	9,537	0.0070	0.9930	86.76
55.5	1,273,577	5,420	0.0043	0.9957	86.15
56.5	1,174,370	10,643	0.0091	0.9909	85.79
57.5	1,095,970	2,215	0.0020	0.9980	85.01
58.5	1,021,076	2,487	0.0024	0.9976	84.84
59.5	928,677	1,430	0.0015	0.9985	84.63
60.5	833,128	12,185	0.0146	0.9854	84.50
61.5	761,055	1,084	0.0014	0.9986	83.26
62.5	716,488	4,173	0.0058	0.9942	83.14
63.5	665,055	6,464	0.0097	0.9903	82.66
64.5	631,387	4,561	0.0072	0.9928	81.86
65.5	594,051	6,657	0.0112	0.9888	81.27
66.5	554,280	5,541	0.0100	0.9900	80.35
67.5	507,199	2,617	0.0052	0.9948	79.55
68.5	479,095	9,320	0.0195	0.9805	79.14
69.5	453,158	6,878	0.0152	0.9848	77.60
70.5	442,057	2,759	0.0062	0.9938	76.42
71.5	436,765	1,169	0.0027	0.9973	75.95
72.5	433,813	9,979	0.0230	0.9770	75.74
73.5	421,474	7,900	0.0187	0.9813	74.00
74.5	406,020	8,761	0.0216	0.9784	72.61
75.5	392,528	3,438	0,0088	0.9912	71.05
76.5	384,731	5,865	0.0152	0.9848	70.42
77.5	377,578	6,451	0.0171	0.9829	69.35
78.5	359,930	11,084	0.0308	0.9692	68.17

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ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1887-2015

EXPERIENCE BAND 1887-2015

AGE AT BEGIN OF	EXPOSURES AT	RETIREMENTS	שמיים	CTIDI	PCT SURV
INTERVAL	AGE INTERVAL	TNTERVAL	RATIO	RATTO	TNTERVAL
			101110	1011 10	1111010710
79.5	344,266	8,890	0.0258	0.9742	66.07
80.5	332,547	1,542	0.0046	0.9954	64.36
81.5	327,858	3,191	0.0097	0.9903	64.06
82.5	322,678	2,764	0.0086	0.9914	63.44
83.5	316,543	2,377	0.0075	0.9925	62,90
84.5	310,474	3,259	0.0105	0.9895	62.42
85.5	302,422	6,482	0.0214	0.9786	61.77
86.5	287,332	8,245	0.0287	0.9713	60.44
87.5	271,803	10,025	0.0369	0.9631	58.71
88.5	226,375	3,242	0.0143	0.9857	56.54
89.5	217,561	5,351	0.0246	0.9754	55.73
90.5	208,126	1,929	0.0093	0.9907	54.36
91.5	206,133	3,837	0.0186	0.9814	53.86
92.5	89,144	1,040	0.0117	0.9883	52.86
93.5	88,104	998	0.0113	0.9887	52.24
94.5	87,106	690	0.0079	0.9921	51.65
95.5	86,416	544	0.0063	0.9937	51.24
96.5	85,872	479	0.0056	0.9944	50.92
97.5	85,393	460	0.0054	0.9946	50.63
98.5	81,037	526	0.0065	0.9935	50.36
99.5	80,512	406	0.0050	0.9950	50.03
100.5	80,106	472	0.0059	0.9941	49.78
101.5	79,634	602	0.0076	0.9924	49.49
102.5	79,032	681	0.0086	0.9914	49.11
103.5	78,351	588	0.0075	0.9925	48.69
104.5	77,763	586	0.0075	0.9925	48.33
105.5	77,177	657	0.0085	0.9915	47.96
106.5	76,520	806	0.0105	0.9895	47.55
107.5	75,714	12,577	0.1661	0.8339	47.05
108.5	63,138	2,037	0.0323	0.9677	39.24
109.5	61,100	264	0.0043	0.9957	37.97
110.5	60,836	738	0.0121	0.9879	37.81
111.5	60,099	2,262	0.0376	0.9624	37.35
112.5	57,837	1,756	0.0304	0.9696	35.94
113.5	56,081	4,820	0.0860	0.9140	34.85
114.5	51,260	1,072	0.0209	0.9791	31.86
115.5	763	309	0.4043	0.5957	31.19
116.5	455	184	0.4043	0.5957	18.58
117.5	271	157	0.5803	0.4197	11.07
118.5	114	64	0.5668	0.4332	4.64
119.5	49	49	1.0000		2.01
120.5					

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ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1887-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	39,188,246	594	0.0000	1.0000	100.00
0,5	35,071,871	2,957	0.0001	0.9999	100.00
1.5	33,190,031	717	0.0000	1.0000	99.99
2.5	32,191,468	1,646	0.0001	0.9999	99.99
3.5	31,281,749	1,569	0.0001	0.9999	99.98
4.5	30,604,477	1,803	0.0001	0.9999	99.98
5.5	29,482,642	339	0.0000	1.0000	99.97
6.5	28,522,900	443	0.0000	1.0000	99.97
7.5	27,118,557	2,083	0.0001	0.9999	99.97
8.5	25,634,615	1,492	0.0001	0.9999	99.96
9.5	24,644,274	7,206	0.0003	0.9997	99.96
10.5	23,760,791	1,898	0.0001	0.9999	99.93
11.5	23,281,116	1,936	0.0001	0.9999	99.92
12.5	22,309,011	14,724	0.0007	0.9993	99.91
13.5	21,342,533	10,162	0.0005	0,9995	99.84
14.5	18,950,221	1,326	0.0001	0.9999	99.80
15.5	17,714,884	694	0.0000	1.0000	99.79
16.5	16,577,824	2,261	0.0001	0.9999	99.79
17.5	15,858,136	2,346	0.0001	0.9999	99.77
18.5	15,023,964	15,959	0.0011	0.9989	99.76
19.5	14,184,740	3,949	0.0003	0.9997	99.65
20.5	13,242,714	4,638	0.0004	0.9996	99.62
21.5	12,146,758	3,471	0.0003	0.9997	99.59
22.5	11,339,985	20,778	0.0018	0.9982	99.56
23.5	10,313,104	3,339	0.0003	0.9997	99.38
24.5	9,583,106	28,977	0.0030	0.9970	99.35
25.5	8,745,704	29,258	0.0033	0.9967	99.05
26.5	8,043,996	39,972	0.0050	0.9950	98.71
27.5	7,350,228	59,191	0.0081	0.9919	98.22
28.5	6,700,292	43,416	0.0065	0.9935	97.43
29.5	6,078,956	67,208	0.0111	0.9889	96.80
30.5	5,584,634	47,511	0,0085	0,9915	95.73
31.5	5,236,271	23,313	0.0045	0.9955	94.92
32.5	4,873,776	123,333	0.0253	0.9747	94.49
33.5	4,527,804	74,583	0.0165	0.9835	92.10
34.5	4,187,256	79,914	0.0191	0.9809	90.59
35.5	3,881,316	15,590	0.0040	0.9960	88.86
36.5	3,541,486	15,597	0.0044	0.9956	88.50
37.5	3,405,597	1,523	0.0004	0,9996	88.11
38.5	3,228,095	1,469	0.0005	0.9995	88.07

ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1887-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	3,119,747	7,202	0.0023	0.9977	88.03
40.5	3,050,582	1,456	0.0005	0.9995	87.83
41.5	2,932,057	1,433	0.0005	0.9995	87.79
42.5	2,696,524	5,630	0.0021	0.9979	87.74
43.5	2,578,054	5,094	0.0020	0,9980	87.56
44.5	2,395,154	1,698	0.0007	0.9993	87.39
45.5	2,237,991	2,775	0.0012	0.9988	87.32
46.5	2,096,893	6,276	0.0030	0,9970	87.22
47.5	1,946,914	2,218	0.0011	0.9989	86.96
48.5	1,739,310	2,259	0.0013	0.9987	86.86
49.5	1,695,200	3,163	0.0019	0.9981	86.74
50.5	1,492,109	5,229	0.0035	0.9965	86.58
51.5	1,387,875	5,695	0.0041	0.9959	86.28
52.5	1,250,015	22,388	0.0179	0.9821	85.92
53.5	1,115,734	3,801	0.0034	0.9966	84.39
54.5	971,118	9,235	0.0095	0.9905	84.10
55.5	889,610	4,802	0.0054	0.9946	83.30
56.5	795,145	10,112	0.0127	0.9873	82.85
57.5	719,771	1,882	0.0026	0.9974	81.79
58.5	650,714	1,776	0.0027	0.9973	81.58
59.5	568,321	212	0.0004	0.9996	81.36
60.5	489,465	11,631	0.0238	0.9762	81.33
61.5	436,544	544	0.0012	0.9988	79.40
62.5	406,690	3,843	0.0094	0.9906	79.30
63.5	410,884	5,978	0.0145	0.9855	78.55
64.5	384,512	3,911	0.0102	0.9898	77.40
65.5	353,445	6,328	0.0179	0.9821	76.62
66.5	324,007	5,210	0.0161	0.9839	75.25
67.5	401,410	2,376	0.0059	0.9941	74,04
68.5	376,685	9,231	0.0245	0.9755	73.60
69.5	353,342	6,625	0.0187	0.9813	71.79
70.5	347,119	2,667	0.0077	0.9923	70.45
71.5	344,842	1,093	0.0032	0.9968	69.91
72.5	341,982	9,914	0.0290	0.9710	69.68
73.5	333,642	7,847	0.0235	0.9765	67.66
74.5	319,230	8,699	0.0273	0.9727	66.07
75.5	306,839	3,340	0.0109	0.9891	64.27
76.5	299,860	5,805	0.0194	0.9806	63.57
77.5	293,296	6,380	0.0218	0.9782	62.34
78.5	276,119	11,007	0.0399	0.9601	60.99
ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1887-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	260,979	8,762	0.0336	0.9664	58.55
80.5	249,845	1,451	0.0058	0.9942	56.59
81.5	245,751	3,077	0.0125	0.9875	56.26
82.5	241,047	2,670	0.0111	0.9889	55.56
83.5	235,494	2,239	0.0095	0.9905	54.94
84.5	230,183	3,199	0.0139	0.9861	54.42
85.5	222,876	6,390	0.0287	0.9713	53.66
86.5	208,467	8,200	0.0393	0.9607	52.12
87.5	193,529	9,960	0.0515	0.9485	50.07
88.5	148,632	3,220	0.0217	0.9783	47.50
89.5	140,658	5,310	0.0377	0.9623	46.47
90.5	204,044	1,877	0.0092	0.9908	44.71
91.5	202,466	3,764	0.0186	0.9814	44.30
92.5	85,769	972	0.0113	0.9887	43.48
93.5	85,008	762	0.0090	0.9910	42.99
94.5	84,477	531	0.0063	0.9937	42.60
95.5	84,485	432	0.0051	0.9949	42.33
96.5	84,415	463	0.0055	0.9945	42.12
97.5	84,432	438	0.0052	0.9948	41.89
98.5	80,412	514	0.0064	0.9936	41.67
99.5	80,103	401	0.0050	0.9950	41.40
100.5	79,866	472	0.0059	0.9941	41.19
101.5	79,548	596	0.0075	0.9925	40.95
102.5	79,024	681	0.0086	0.9914	40.64
103.5	78,351	588	0.0075	0.9925	40.29
104.5	77,763	586	0.0075	0.9925	39.99
105.5	77,177	657	0.0085	0.9915	39.69
106.5	76,520	806	0.0105	0,9895	39.35
107.5	75,714	12,577	0.1661	0.8339	38.94
108.5	63,138	2,037	0.0323	0.9677	32.47
109.5	61,100	264	0.0043	0.9957	31.42
110.5	60,836	738	0.0121	0.9879	31.29
111.5	60,099	2,262	0.0376	0.9624	30.91
112.5	57,837	1,756	0.0304	0.9696	29.74
113.5	56,081	4,820	0.0860	0.9140	28.84
114.5	51,260	1,072	0.0209	0.9791	26.36
115.5	763	309	0.4043	0.5957	25.81
116.5	455	184	0.4043	0.5957	15.38
117.5	271	157	0.5803	0.4197	9.16
118.5	114	64	0.5668	0.4332	3.84
119.5	4 9	49	1.0000		1.67
120.5					

AQUA OHIO, INC. ACCOUNT 334.10 METERS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 334.10 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1906-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	19,706,642	3,787	0.0002	0.9998	100.00
0.5	18,842,494	92,984	0.0049	0.9951	99.98
1.5	17,342,703	38,872	0.0022	0.9978	99.49
2.5	16,733,348	40,432	0.0024	0.9976	99.26
3.5	16,033,875	39,039	0.0024	0.9976	99.02
4.5	15,615,076	102,620	0.0066	0.9934	98.78
5.5	14,784,710	40,602	0.0027	0.9973	98.13
6.5	14,004,788	53,451	0.0038	0.9962	97.86
7.5	13,314,006	59,446	0.0045	0.9955	97.49
8.5	12,967,237	73,109	0.0056	0.9944	97.06
9.5	12,447,333	60,722	0.0049	0.9951	96.51
10.5	12,268,541	182,063	0.0148	0.9852	96.04
11.5	11,947,653	84,463	0.0071	0.9929	94.61
12.5	11,138,513	89,961	0.0081	0.9919	93.94
13,5	10,560,430	84,670	0.0080	0.9920	93.19
14.5	8,851,880	124,981	0.0141	0.9859	92.44
15.5	8,108,779	185,191	0.0228	0.9772	91.13
16.5	7,412,717	133,822	0.0181	0.9819	89.05
17.5	6,936,658	254,833	0.0367	0.9633	87.44
18.5	5,805,872	172,161	0.0297	0.9703	84.23
19.5	5,131,997	263,003	0.0512	0.9488	81.73
20.5	4,394,699	134,926	0.0307	0.9693	77.55
21.5	3,920,303	112,925	0.0288	0.9712	75.16
22.5	3,239,220	145,198	0.0448	0.9552	73.00
23.5	2,806,900	212,649	0.0758	0.9242	69.73
24.5	2,418,043	330,941	0.1369	0.8631	64.44
25.5	1,850,908	378,774	0.2046	0.7954	55.62
26.5	1,327,477	396,069	0.2984	0.7016	44.24
27.5	947,400	87,210	0.0921	0.9079	31.04
28.5	860,107	95,505	0.1110	0.8890	28.18
29.5	758,636	18,023	0.0238	0.9762	25.05
30.5	743,349	143,775	0.1934	0.8066	24.46
31.5	612,473	137,225	0.2241	0.7759	19.73
32.5	471,428	196,028	0.4158	0.5842	15.31
33.5	271,858	9,587	0.0353	0.9647	8.94
34.5	260,390	8,978	0.0345	0.9655	8.63
35.5	248,930	49,272	0.1979	0.8021	8.33
36.5	197,464	43,932	0.2225	0.7775	6.68
37.5	180,018	6,305	0.0350	0.9650	5.19
38.5	168,062	3,347	0.0199	0.9801	5.01

ACCOUNT 334.10 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	161,267	8,088	0.0502	0.9498	4.91
40.5	142,303	3,138	0.0221	0.9779	4.67
41.5	139,055	4,720	0.0339	0.9661	4.56
42.5	133,196	3,710	0.0279	0.9721	4.41
43.5	129,061	1,896	0.0147	0.9853	4.29
44.5	126,813	3,222	0.0254	0.9746	4.22
45.5	111,538	1,768	0.0159	0.9841	4.12
46.5	109,503	1,971	0.0180	0.9820	4.05
47.5	107,065	3,014	0.0281	0.9719	3.98
48.5	104,051	4,791	0.0460	0,9540	3.87
49.5	99,174	9,306	0.0938	0.9062	3.69
50.5	89,725	8,583	0.0957	0.9043	3.34
51.5	66,629	1,406	0.0211	0.9789	3.02
52.5	65,223	5,788	0.0887	0.9113	2.96
53.5	59,438	1,842	0.0310	0.9690	2.70
54.5	57,447	1,277	0.0222	0.9778	2.61
55.5	56,170	2,140	0.0381	0.9619	2.55
56.5	53,373	1,293	0.0242	0.9758	2.46
57.5	51,950	2,093	0.0403	0.9597	2.40
58.5	49,857	230	0.0046	0.9954	2.30
59.5	49,627	409	0.0082	0.9918	2.29
60.5	49,218	507	0.0103	0.9897	2.27
61.5	48,663	21,426	0.4403	0.5597	2.25
62.5	27,237	7,359	0.2702	0.7298	1.26
63.5	19,749	5,714	0.2893	0.7107	0.92
64.5	5,931	242	0.0408	0.9592	0.65
65.5	5,496	61	0.0111	0.9889	0.63
66.5	5,114	135	0.0264	0.9736	0.62
67.5	4,890	64	0.0131	0.9869	0.60
68.5	4,689	41	0.0087	0.9913	0.59
69.5	4,568	286	0.0625	0.9375	0.59
70.5	4,210	274	0.0650	0.9350	0.55
71.5	3,936	10	0.0026	0,9974	0.52
72.5	3,899	2,771	0.7108	0.2892	0.52
73.5	1,119	1	0.0009	0.9991	0.15
74.5	1,118		0.0000	1.0000	0.15
75.5	1,118	91	0.0812	0.9188	0.15
76.5	992	147	0.1484	0.8516	0.14
77.5	845	10	0.0123	0.9877	0.12
78.5	832	8	0.0099	0.9901	0.12

ACCOUNT 334.10 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	824	8	0.0096	0.9904	0.11
80.5	615	16	0.0267	0.9733	0.11
81.5	599	. 35	0.0584	0.9416	0.11
82.5	564		0.0000	1.0000	0.10
83.5	564	3	0.0059	0.9941	0.10
84.5	561	169	0.3013	0.6987	0.10
85.5	392		0.0000	1.0000	0.07
86.5	392	24	0.0613	0.9387	0.07
87.5	368	70	0.1902	0.8098	0.07
88.5	298		0.0000	1.0000	0.05
89.5	298	123	0.4130	0.5870	0.05
90.5	175		0.0000	1.0000	0.03
91.5	175	140	0.8000	0.2000	0.03
92.5	35		0.0000	1.0000	0.01
93.5	35		0.0000	1.0000	0.01
94.5	35		0.0000	1.0000	0.01
95.5	35	35	1.0000		0.01
96.5					

ACCOUNT 334.10 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1906-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	14,103,120	2,027	0.0001	0.9999	100.00
0.5	13,786,383	92,614	0.0067	0.9933	99.99
1.5	12,663,386	38,872	0.0031	0.9969	99.31
2.5	12,668,912	40,432	0.0032	0.9968	99.01
3.5	12,334,025	38,474	0.0031	0.9969	98.69
4.5	12,182,985	102,326	0.0084	0.9916	98.39
5.5	11,733,159	38,395	0.0033	0.9967	97.56
6.5	11,372,690	51,283	0.0045	0.9955	97.24
7.5	11,073,879	58,828	0.0053	0.9947	96.80
8.5	11,151,257	73,003	0.0065	0.9935	96.29
9.5	10,877,583	60,552	0.0056	0.9944	95.66
10.5	10,911,252	181,829	0.0167	0.9833	95.12
11.5	10,720,737	84,425	0.0079	0.9921	93.54
12.5	10,013,691	89,475	0.0089	0.9911	92.80
13.5	9,513,855	84,569	0.0089	0.9911	91.97
14.5	7,867,984	119,276	0.0152	0.9848	91.16
15.5	7,206,869	185,098	0.0257	0.9743	89.77
16.5	6,518,810	133,791	0.0205	0.9795	87.47
17.5	6,053,811	254,680	0.0421	0.9579	85.67
18.5	4,949,371	172,086	0.0348	0.9652	82.07
19.5	4,284,806	262,629	0.0613	0.9387	79.22
20.5	3,629,237	134,926	0.0372	0.9628	74.36
21.5	3,157,632	112,625	0.0357	0.9643	71.60
22.5	2,489,829	145,127	0.0583	0.9417	69.04
23.5	2,059,950	212,527	0.1032	0.8968	65.02
24.5	1,673,299	330,845	0.1977	0.8023	58.31
25.5	1,245,833	378,654	0.3039	0.6961	46.78
26.5	732,308	395,906	0.5406	0.4594	32.56
27.5	356,714	86,693	0.2430	0.7570	14.96
28.5	272,411	95,411	0.3502	0.6498	11.32
29.5	172,877	17,464	0.1010	0.8990	7.36
30.5	639,230	142,459	0.2229	0.7771	6.61
31.5	511,223	135,770	0.2656	0.7344	5.14
32.5	371,988	194,756	0.5236	0.4764	3.77
33.5	175,501	8,500	0.0484	0.9516	1.80
34.5	167,507	8,101	0.0484	0.9516	1.71
35.5	157,860	44,966	0.2848	0.7152	1.63
36.5	112,560	42,032	0.3734	0.6266	1.16
37.5	97,917	3,869	0.0395	0.9605	0.73
38.5	89,998	2,425	0.0269	0.9731	0.70

ACCOUNT 334.10 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	91,585	7,397	0.0808	0.9192	0.68
40.5	74,656	2,188	0.0293	0.9707	0.63
41.5	72,852	2,432	0.0334	0.9666	0.61
42.5	69,639	2,639	0.0379	0.9621	0.59
43.5	67,185	1,554	0.0231	0.9769	0.57
44.5	109,600	2,524	0.0230	0.9770	0.55
45.5	95,944	937	0.0098	0.9902	0.54
46.5	99,183	1,249	0.0126	0.9874	0.53
47.5	98,187	2,592	0.0264	0.9736	0.53
48.5	95,891	4,487	0.0468	0.9532	0.51
49.5	91,667	9,087	0.0991	0.9009	0.49
50.5	82,576	8,407	0.1018	0.8982	0.44
51.5	59,656	780	0.0131	0.9869	0.40
52.5	58,961	5,579	0.0946	0.9054	0.39
53.5	53,393	1,692	0.0317	0.9683	0.35
54.5	51,661	1,095	0.0212	0.9788	0.34
55.5	50,566	1,785	0.0353	0.9647	0.34
56.5	48,251	1,164	0.0241	0.9759	0.32
57.5	47,158	2,029	0.0430	0.9570	0.32
58.5	45,370	154	0.0034	0.9966	0.30
59.5	45,216	334	0.0074	0.9926	0.30
60.5	47,854	453	0.0095	0.9905	0.30
61.5	47,353	21,308	0.4500	0.5500	0.30
62.5	26,045	7,327	0.2813	0.7187	0.16
63.5	18,589	5,681	0.3056	0.6944	0.12
64.5	4,803	157	0.0327	0.9673	0.08
65.5	4,537	40	0.0088	0.9912	0.08
66.5	4,281	135	0.0315	0.9685	0.08
67.5	4,057	43	0.0106	0.9894	0.08
68.5	3,893	41	0.0105	0.9895	0.07
69.5	3,807	258	0.0677	0.9323	0.07
70.5	3,477	264	0.0759	0.9241	0.07
71.5	3,213		0.0000	1.0000	0.06
72.5	3,355	2,771	0.8259	0.1741	0.06
73.5	595	1	0.0016	0.9984	0.01
74.5	615		0.0000	1.0000	0.01
75.5	789	91	0.1152	0.8848	0.01
76.5	662	147	0.2222	0.7778	0.01
77.5	515	10	0.0202	0.9798	0.01
78.5	503	8	0.0163	0.9837	0.01

ACCOUNT 334.10 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2015

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	677	8	0.0117	0.9883	0.01
80.5	468	16	0.0350	0.9650	0.01
81.5	452	35	0.0774	0.9226	0.01
82.5	417		0.0000	1.0000	0.01
83.5	452	3	0.0073	0.9927	0.01
84.5	449	169	0.3766	0.6234	0.01
85.5	280		0.0000	1.0000	0.00
86.5	280		0.0000	1.0000	0.00
87.5	280	70	0.2500	0.7500	0.00
88.5	210		0.0000	1.0000	0.00
89,5	298	123	0.4130	0.5870	0.00
90.5	175		0.0000	1.0000	0.00
91.5	175	140	0.8000	0.2000	0.00
92.5	35		0.0000	1.0000	0.00
93.5	35		0.0000	1.0000	0.00
94.5	35		0.0000	1.0000	0.00
95.5	35	35	1.0000		0.00
96.5					

ACCOUNT 334.10 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1923-2015

EXPERIENCE BAND 2010-2015

AGE AT BEGIN OF	EXPOSURES AT	RETIREMENTS	דאיייא	STID V	PCT SURV
INTERVAL	AGE INTERVAL	INTERVAL	RATTO	RATTO	TNTERVAL
AC & T & JULL & V & LASS	***************************************		*******	101120	
0.0	5,080,786		0.0000	1.0000	100.00
0.5	5,175,574	60	0.0000	1.0000	100.00
1.5	4,306,794	20,453	0.0047	0.9953	100.00
2.5	4,089,590	21,504	0.0053	0.9947	99.52
3.5	3,877,866	775	0.0002	0.9998	99.00
4.5	3,640,777		0.0000	1.0000	98.98
5.5	2,893,089	737	0.0003	0.9997	98.98
6.5	2,768,638	23,154	0.0084	0.9916	98.96
7.5	2,548,890	21,838	0.0086	0.9914	98.13
8.5	3,802,781	6,686	0.0018	0.9982	97.29
9.5	3,933,671	10,032	0.0026	0.9974	97.12
10.5	4,323,658	125,452	0.0290	0.9710	96.87
11.5	4,411,270	21,193	0.0048	0.9952	94.06
12.5	4,660,155	18,756	0.0040	0.9960	93.61
13.5	4,811,514	4,488	0.0009	0.9991	93.23
14.5	3,804,107	640	0.0002	0.9998	93.14
15.5	3,609,957	76,184	0.0211	0.9789	93.13
16.5	3,655,051	37,654	0.0103	0.9897	91.16
17.5	3,610,657	180,775	0.0501	0.9499	90.22
18.5	2,749,093	103,492	0.0376	0.9624	85.71
19.5	2,445,140	188,599	0.0771	0.9229	82.48
20.5	2,096,792	64,828	0.0309	0.9691	76.12
21.5	1,978,412	25,364	0.0128	0.9872	73.76
22.5	1,666,293	67,504	0.0405	0.9595	72.82
23.5	1,414,415	106,509	0.0753	0.9247	69.87
24.5	1,180,991	235,562	0.1995	0.8005	64.61
25.5	715,754	247,884	0.3463	0.6537	51.72
26.5	366,185	247,888	0.6769	0.3231	33.81
27.5	135,770	66,352	0.4887	0.5113	10.92
28.5	75,511	24,106	0.3192	0.6808	5,58
29.5	47,748	7,127	0.1493	0.8507	3.80
30.5	43,064	6,908	0.1604	0.8396	3.23
31.5	43,683	10,157	0.2325	0.7675	2.72
32.5	37,301	6,785	0.1819	0.8181	2.08
33.5	30,152	2,630	0.0872	0.9128	1.70
34.5	38,048	5,410	0.1422	0.8578	1.56
35.5	32,330	3,558	0.1101	0.8899	1.33
36.5	31,616	747	0,0236	0.9764	1.19
37.5	28,817	2,335	0.0810	0.9190	1.16
38.5	22,383	1,035	0,0462	0.9538	1.07

ACCOUNT 334.10 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1923-2015

EXPERIENCE BAND 2010-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	31,650	3,864	0.1221	0.8779	1.02
40.5	18,590	1,537	0.0827	0.9173	0.89
41.5	20,169	1,855	0.0920	0.9080	0.82
42.5	19,191	2,094	0.1091	0.8909	0.74
43.5	18,267	1,101	0.0603	0.9397	0.66
44.5	17,430	2,269	0.1302	0.8698	0.62
45.5	34,899	797	0.0228	0.9772	0.54
46.5	33,997	758	0.0223	0.9777	0.53
47.5	33,888	246	0.0073	0.9927	0.52
48.5	35,353	4,172	0.1180	0.8820	0.51
49.5	31,395	8,759	0.2790	0.7210	0.45
50.5	23,838	7,773	0.3261	0.6739	0.33
51.5	1,894	585	0.3086	0.6914	0.22
52.5	1,595	213	0.1336	0.8664	0.15
53.5	3,204	1,474	0.4602	0.5398	0.13
54.5	2,006	731	0.3644	0.6356	0.07
55.5	1,593	341	0.2138	0.7862	0.05
56.5	915	269	0.2939	0.7061	0.04
57.5	824	452	0.5482	0.4518	0.03
58.5	42,059	151	0.0036	0.9964	0.01
59.5	42,157	40	0.0010	0.9990	0.01
60.5	42,975	366	0.0085	0.9915	0.01
61.5	43,010	21,099	0.4906	0.5094	0.01
62.5	22,086	7,296	0.3304	0.6696	0.01
63.5	14,741	5,681	0.3854	0.6146	0.00
64.5	1,060	130	0.1223	0.8777	0.00
65.5	738	38	0.0514	0.9486	0.00
66.5	436	25	0,0565	0.9435	0.00
67.5	331		0.0000	1.0000	0.00
68.5	194		0.0000	1.0000	0.00
69.5	114	б	0.0502	0.9498	0.00
70.5	99	26	0.2679	0.7321	0.00
71.5	72		0.0000	1.0000	0.00
72.5	47	0	0.0008	0.9992	0.00
73.5	39	1	0.0250	0.9750	0.00
74.5	239		0.0000	1.0000	0.00
75.5	239	0	0.0019	0.9981	0.00
76.5	203		0.0000	1.0000	0.00
77.5	203		0.0000	1.0000	0.00
78.5	201		0.0000	1.0000	0.00

ACCOUNT 334.10 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1923-2015

EXPERIENCE BAND 2010-2015

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	204		0.0000	1.0000	0.00
80.5	3		0.0000	1.0000	0.00
81.5	3		0.0000	1.0000	0.00
82.5	3		0.0000	1.0000	0.00
83.5	3	3	1.0000		0.00
84.5					

AQUA OHIO, INC. ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1868-2015

BEGIN OF INTERVALBEGINNING OF AGE INTERVALDURING AGE INTERVALRATIOSURV RATIOBEGIN OF INTERVAL0.021,363,4690.00001.0000100.000.517,513,57918,1080.00120.9990100.001.513,149,30029,2030.00220.997899.902.511,899,6055,8100.00070.999399.634.59,867,0774,1500.00010.999899.565.58,927,66010,5110.00120.998899.516.57,659,34647,5880.00620.993899.637.56,907,1588,2390.00120.998898.788.56,146,7418,1970.00130.998798.6310.55,036,37292,0390.01830.996296.5112.54,457,01418,6570.00420.995895.7414.53,535,69552,4430.01480.985295.0715.53,346,48643,5210.01300.981793.6616.53,095,33051,4530.03690.962193.6616.53,095,33051,4530.01480.985295.0715.53,346,48643,5210.01300.987793.6616.53,095,33051,4530.03690.962193.6617.52,849,995107,5200.3770.962390.9118.52,453,51890,5120.03430.95779.90	AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVAL 0.0 21,363,469 0.0000 1.0000 100.00 0.5 17,513,579 18,108 0.0010 0.9990 100.00 1.5 13,149,300 29,203 0.0022 0.9978 99.90 2.5 11,899,605 5,810 0.0007 0.9993 99.63 4.5 9,867,077 4,150 0.0042 0.9988 99.51 6.5 7,659,346 47,588 0.0012 0.9988 98.71 7.5 6,907,158 8,239 0.0013 0.9987 98.66 9.5 5,623,227 12,448 0.0022 0.9978 98.53 10.5 5,036,372 92,039 0.0183 0.9962 96.51 12.5 4,457,014 18,657 0.0042 0.9938 96.14 13.5 4,279,405 29,888 0.0070 0.9930 95.74 14.45 3,535,695 52,443	BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
	INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.5 $12,33,493$ 0.0000 1.0000 1.000 1.5 $13,149,300$ $29,203$ 0.0022 0.9978 $99,90$ 2.5 $11,899,605$ $5,810$ 0.0005 0.9995 99.67 3.5 $10,800,102$ $7,746$ 0.0007 0.9998 99.56 5.5 $8,927,660$ $10,511$ 0.0012 0.9988 99.56 5.5 $8,927,660$ $10,511$ 0.0012 0.9988 99.56 5.5 $6,907,158$ $8,239$ 0.0012 0.9988 98.78 8.5 $6,146,741$ $8,197$ 0.0013 0.9987 98.66 9.5 $5,623,237$ $12,448$ 0.0022 0.9978 98.53 10.5 $5,036,372$ $92,039$ 0.0183 0.9817 98.13 11.5 $4,754,398$ $18,239$ 0.0038 0.9962 96.51 12.5 $4,457,014$ $18,657$ 0.0042 0.9958 96.144 13.5 $4,279,405$ $29,888$ 0.0070 0.9952 95.74 14.5 $3,535,695$ $52,443$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0148 0.9852 95.07 15.5 $3,245,518$ $90,512$ 0.0369 0.9623 96.91 18.5 $2,453,518$ $90,512$ 0.03	0 0	21 262 169		0 0000	1 0000	100 00
1.5 $17,149,300$ $29,203$ 0.0010 0.9978 99.80 2.5 $11,999,605$ $5,810$ 0.0005 0.9993 99.67 3.5 $10,890,102$ $7,746$ 0.0007 0.9993 99.63 4.5 $9,67,077$ $4,150$ 0.0002 0.9988 99.55 5.5 $8,927,660$ $10,511$ 0.0012 0.9988 99.55 6.5 $7,659,346$ $47,588$ 0.0062 0.9988 99.51 6.5 $7,659,346$ $47,588$ 0.0022 0.9988 98.78 8.5 $6,146,741$ $8,197$ 0.0013 0.9987 98.66 9.5 $5,623,237$ $12,448$ 0.0022 0.9978 98.53 10.5 $5,036,372$ $92,039$ 0.0183 0.9917 98.51 12.5 $4,457,014$ $18,657$ 0.0042 0.9958 96.51 12.5 $4,457,014$ $18,657$ 0.0042 0.9958 96.51 12.5 $4,457,014$ $18,657$ 0.0042 0.9958 95.74 14.5 $3,535,695$ $52,443$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0130 0.9870 93.66 16.5 $3.095,330$ $51,453$ 0.0148 0.9651 77.46 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1.968,219$ $67,512$ 0.0343 0.9561 77.16 22.5 $1.52,260$ $73,427$	0.5	21,303,409	10 100	0.0000	1.0000	100.00
1.513,149,50029,203 0.0022 0.0978 99.502.511,899,6055,810 0.0007 0.9993 99.673.510,890,1027,746 0.0004 0.9996 99.565.58,927,66010,511 0.0012 0.9988 99.516.57,659,34647,588 0.0062 0.9938 99.407.56,907,1588,239 0.0012 0.9987 98.689.55,623,23712,448 0.0022 0.9978 98.5310.55,036,37292,039 0.0183 0.9967 98.5310.55,036,37292,039 0.0013 0.9987 98.5311.54,754,39818,239 0.0022 0.9978 98.5312.54,457,01418,657 0.0422 0.9958 96.1413.54,279,40529,888 0.0070 0.9930 95.7414.53,535,69552,443 0.0148 0.9852 95.0715.53,346,48643,521 0.0130 0.9870 93.6616.53,095,33051,453 0.0166 0.9834 92.4417.52,849,995107,520 0.0377 0.9623 90.9118.52,453,51890,512 0.0369 0.9651 77.1622.51,552,26073,427 0.0473 0.9577 79.9021.51,785,41578,808 0.3198 0.6602 50.1225.51,005,914131,084 0.1303 0.8697 <	1 5	17,013,079	10,100	0.0010	0.9990	100.00
2.511,899,8035,8100.00050.999599.633.510,890,1027,7460.00070.999399.634.59,867,0774,1500.00040.999699.565.58,927,66010,5110.00120.998899.616.57,659,34647,5580.00620.993899.407.56,907,1588,2390.00120.998898.788.56,146,7418,1970.00130.998798.669.55,623,23712,4480.00220.997898.5310.55,036,37292,0390.01830.981798.3111.54,754,39818,2390.00380.996296.5112.54,457,01418,6570.00420.995896.1413.54,279,40529,8880.00700.993095.7414.53,535,69552,4430.01480.985295.0715.53,346,48643,5210.01300.983492.4417.52,849,995107,5200.03770.962390.9118.52,453,51890,5120.03690.965187.4819.52,253,578116,3220.05160.948484.2520.51,966,21967,5120.03770.952773.7723.51,382,04499.8510.07220.927870.2824.51,226,916142,5820.11620.883865.2125.51,005,914131.0840.1303 <td>J E</td> <td>13,149,300</td> <td>29,203</td> <td>0.0022</td> <td>0.9978</td> <td>99.90</td>	J E	13,149,300	29,203	0.0022	0.9978	99.90
3.510,850,1027,7460.00070.999399,634.59,867,0774,1500.00040.999899.565.58,927,66010,5110.00120.998899.516.57,659,34647,5680.00620.993899.407.56,907,1588,2390.00120.998898.788.56,146,7418,1970.00130.998798.669.55,623,23712,4480.00220.997898.5310.55,036,37292,0390.01830.981798.3111.54,754,39818,2390.00380.996296.5112.54,457,01418,6570.00420.995896.1413.54,279,40529,8880.00700.993095.7414.53,535,69552,4430.01480.985295.0715.53,346,48643,5210.01300.987093.6616.53,095,33051,4530.01660.983492.4417.52,849,995107,5200.03770.962390.9118.52,253,578116,3220.05160.948484.2520.51,968,21967,5120.03430.965779.9021.51,752,26073,4270.04730.952773.7723.51,362,04499,8510.07220.927870.2824.51,226,916142,5820.11620.883865.2125.51,005,914131,0840.1303 <td>2.5</td> <td>10 000 100</td> <td>5,810</td> <td>0.0005</td> <td>0.9995</td> <td>99.67</td>	2.5	10 000 100	5,810	0.0005	0.9995	99.67
4.15 $9,867,077$ $4,150$ 0.0004 0.9996 $99,56$ 5.5 $8,927,660$ $10,511$ 0.0012 0.9988 $99,51$ 6.5 $7,659,346$ $47,588$ 0.0062 0.9938 99.40 7.5 $6,907,158$ $8,239$ 0.0012 0.9988 98.78 8.5 $6,146,741$ $8,197$ 0.0013 0.9987 98.66 9.5 $5,623,237$ $12,448$ 0.0022 0.9978 98.53 10.5 $5,036,372$ $92,039$ 0.0183 0.9962 96.51 12.5 $4,457,014$ $18,657$ 0.0042 0.9958 96.14 13.5 $4,279,405$ $29,888$ 0.0070 0.9930 95.74 14.5 $3,555,695$ $52,443$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0130 0.9870 93.66 16.5 $3,095,330$ $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9521 77.16 22.5 $1,762,916$ $142,582$ 0.1162 0.8838 65.21 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ <	3.5	10,890,102	/,/46	0.0007	0.9993	99.63
3.5 $8,92,1,600$ $10,911$ 0.0012 0.9938 $99,51$ 6.5 $7,659,346$ $47,588$ 0.0022 0.9938 $99,40$ 7.5 $6,907,158$ $8,239$ 0.0012 0.9988 98.78 8.5 $6,146,741$ $8,197$ 0.0013 0.9987 98.66 9.5 $5,623,237$ $12,448$ 0.0022 0.9978 98.53 10.5 $5,036,372$ $92,039$ 0.0183 0.9962 96.51 12.5 $4,457,014$ $18,657$ 0.0042 0.9958 96.14 13.5 $4,279,405$ $29,888$ 0.0070 0.9930 95.74 14.5 $3,535,695$ $52,443$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0130 0.9870 93.66 16.5 $3,095,330$ $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,968,219$ $67,512$ 0.0343 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9927 7.63 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$	4.0	9,867,077	4,150	0.0004	0.9996	99.56
6.5 $7,659,346$ $47,588$ 0.0062 0.9938 $99,40$ 7.5 $6,907,158$ $8,239$ 0.0012 0.9988 98.78 8.5 $6,146,741$ $8,197$ 0.0013 0.9987 98.66 9.5 $5,623,237$ $12,448$ 0.0022 0.9978 98.53 10.5 $5,036,372$ $92,039$ 0.0183 0.9987 98.53 11.5 $4,754,398$ $18,239$ 0.0038 0.9962 96.51 12.5 $4,457,014$ $18,657$ 0.0042 0.9958 96.14 13.5 $4,279,405$ $29,888$ 0.0070 0.9930 95.74 14.5 $3,535,695$ $52,443$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0130 0.9870 93.66 16.5 $3,095,330$ $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9557 79.90 21.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8697 57.63 25.5 $1,059,314$ <td< td=""><td>5.5</td><td>8,927,660</td><td>10,511</td><td>0.0012</td><td>0.9988</td><td>99.51</td></td<>	5.5	8,927,660	10,511	0.0012	0.9988	99.51
7.56,907,1588,239 0.0012 0.9987 98.66 9.56,146,7418,197 0.0013 0.9987 98.66 9.55,623,237 $12,448$ 0.0022 0.9987 98.53 10.55,036,372 $92,039$ 0.0183 0.9817 98.51 11.54,754,398 $18,239$ 0.0038 0.9962 96.51 12.54,457,014 $18,657$ 0.0042 0.9958 96.14 13.54,279,405 $29,888$ 0.0070 0.9930 95.74 14.53,535,695 $52,443$ 0.0148 0.9852 95.07 15.53,346,486 $43,521$ 0.0130 0.9870 93.66 16.53,095,330 $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9567 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $566,061$ $49,602$ 0.0673 0.9127 34.09 <td>0.5</td> <td>7,659,346</td> <td>47,588</td> <td>0.0062</td> <td>0.9938</td> <td>99.40</td>	0.5	7,659,346	47,588	0.0062	0.9938	99.40
8.5 $6,146,741$ $8,197$ 0.0013 0.9987 $98,66$ 9.5 $5,623,237$ $12,448$ 0.0022 0.9978 $98,53$ 10.5 $5,036,372$ $92,039$ 0.0183 0.9967 $98,31$ 11.5 $4,754,398$ $18,239$ 0.0038 0.9962 $96,51$ 12.5 $4,457,014$ $18,657$ 0.0042 0.9958 96.14 13.5 $4,279,405$ $29,888$ 0.0070 0.9930 $95,74$ 14.5 $3,535,695$ $52,443$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0130 0.9870 $93,666$ 16.5 $3,095,330$ $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9551 77.63 24.5 $1,226,916$ $142,582$ 0.1162 0.8888 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8897 77.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ 25	7.5	6,907,158	8,239	0.0012	0.9988	98.78
9.55,623,23712,448 0.0022 0.9978 98.53 10.55,036,372 $92,039$ 0.0183 0.9961 98.31 11.54,754,398 $18,239$ 0.0038 0.9962 96.51 12.54,457,014 $18,657$ 0.0042 0.9958 96.14 13.54,279,405 $29,888$ 0.0070 0.9930 95.74 14.53,535,695 $52,443$ 0.0148 0.9652 95.07 15.53,346,486 $43,521$ 0.0130 0.9870 93.66 16.53,095,330 $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,765,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9828 27.45	8.5	6,146,741	8,197	0.0013	0,9987	98.66
10.5 $5,036,372$ $92,039$ 0.0183 0.9817 98.31 11.5 $4,754,398$ $18,239$ 0.0038 0.9962 96.51 12.5 $4,457,014$ $18,657$ 0.0042 0.9958 96.14 13.5 $4,279,405$ $29,888$ 0.0070 0.9930 95.74 14.5 $3,535,695$ $52,443$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,752,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.9511 31.11 29.5 $487,275$ $25,067$ 0.0514 0.9484 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9823 28.07 31.5 $442,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ 27	9.5	5,623,237	12,448	0.0022	0.9978	98.53
11.5 $4,754,398$ $18,239$ 0.0038 0.9962 96.51 12.5 $4,457,014$ $18,657$ 0.0042 0.9958 96.14 13.5 $4,279,405$ $29,888$ 0.0070 0.9300 95.74 14.5 $3,535,695$ $52,443$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0130 0.9870 93.66 16.5 $3,095,330$ $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.211 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0066 0.9337 26.34 25.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 35.5 $379,731$ $28,49$	10.5	5,036,372	92,039	0.0183	0.9817	98.31
12.5 $4,457,014$ $18,657$ 0.0042 0.9958 96.14 13.5 $4,279,405$ $29,888$ 0.0070 0.9930 95.74 14.5 $3,535,695$ $52,443$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0130 0.9870 93.66 16.5 $3,095,330$ $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,522,260$ $73,427$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9828 27.45 35.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,90$	11.5	4,754,398	18,239	0.0038	0.9962	96.51
13.5 $4,279,405$ $29,888$ 0.0070 0.9930 95.74 14.5 $3,535,695$ $52,443$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0130 0.9870 93.66 16.5 $3,095,330$ $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.6607 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9828 27.44 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.989 34.5 $412,450$ $27,350$ 0.0663 0.9337	12.5	4,457,014	18,657	0.0042	0.9958	96.14
14.5 $3,535,695$ $52,443$ 0.0148 0.9852 95.07 15.5 $3,346,486$ $43,521$ 0.0130 0.9870 93.66 16.5 $3,095,330$ $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9828 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$	13.5	4,279,405	29,888	0.0070	0.9930	95.74
15.5 $3,346,486$ $43,521$ 0.0130 0.9870 93.66 16.5 $3,095,330$ $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.01170 0.9828 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.74 32.5 $443,476$ $7,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $279,973$ 16.278 <	14.5	3,535,695	52,443	0.0148	0.9852	95.07
16.5 $3,095,330$ $51,453$ 0.0166 0.9834 92.44 17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9337 26.34 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$	15.5	3,346,486	43,521	0.0130	0.9870	93.66
17.5 $2,849,995$ $107,520$ 0.0377 0.9623 90.91 18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $246,456$ $41,016$ <t< td=""><td>16.5</td><td>3,095,330</td><td>51,453</td><td>0.0166</td><td>0.9834</td><td>92.44</td></t<>	16.5	3,095,330	51,453	0.0166	0.9834	92.44
18.5 $2,453,518$ $90,512$ 0.0369 0.9631 87.48 19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $246,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$	17.5	2,849,995	107,520	0.0377	0.9623	90.91
19.5 $2,253,578$ $116,322$ 0.0516 0.9484 84.25 20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $346,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$ 0.0372 0.9628 20.06	18.5	2,453,518	90,512	0.0369	0.9631	87.48
20.5 $1,968,219$ $67,512$ 0.0343 0.9657 79.90 21.5 $1,785,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.6663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $346,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$ 0.0372 0.9628 20.066 38.5 $279,973$ $16,278$ 0.0581 0.9419 19.31	19.5	2,253,578	116,322	0.0516	0.9484	84.25
21.5 $1,785,415$ $78,388$ 0.0439 0.9561 77.16 22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,246$ 0.0489 0.9511 31.11 29.5 $487,275$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $346,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$ 0.0372 0.9628 20.06 38.5 $279,973$ $16,278$ 0.0581 0.9419 19.31	20.5	1,968,219	67,512	0.0343	0.9657	79.90
22.5 $1,552,260$ $73,427$ 0.0473 0.9527 73.77 23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,246$ 0.0489 0.9511 31.11 29.5 $487,275$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $346,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$ 0.0372 0.9628 20.06 38.5 $279,973$ $16,278$ 0.0581 0.9419 19.31	21.5	1,785,415	78,388	0.0439	0.9561	77.16
23.5 $1,382,044$ $99,851$ 0.0722 0.9278 70.28 24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,246$ 0.0489 0.9511 31.11 29.5 $487,275$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $346,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$ 0.0372 0.9628 20.06 38.5 $279,973$ 16.278 0.0581 0.9419 19.31	22.5	1,552,260	73,427	0.0473	0.9527	73.77
24.5 $1,226,916$ $142,582$ 0.1162 0.8838 65.21 25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,246$ 0.0489 0.9511 31.11 29.5 $487,275$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $346,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$ 0.0372 0.9628 20.06 38.5 $279,973$ $16,278$ 0.0581 0.9419 19.31	23.5	1,382,044	99,851	0.0722	0.9278	70.28
25.5 $1,005,914$ $131,084$ 0.1303 0.8697 57.63 26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,246$ 0.0489 0.9511 31.11 29.5 $487,275$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $346,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$ 0.0372 0.9628 20.066 38.5 $279,973$ $16,278$ 0.0581 0.9419 19.31	24.5	1,226,916	142,582	0.1162	0.8838	65.21
26.5 $837,846$ $267,938$ 0.3198 0.6802 50.12 27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,246$ 0.0489 0.9511 31.11 29.5 $487,275$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $346,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$ 0.0372 0.9628 20.066 38.5 $279,973$ $16,278$ 0.0581 0.9419 19.31	25.5	1,005,914	131,084	0.1303	0.8697	57.63
27.5 $568,061$ $49,602$ 0.0873 0.9127 34.09 28.5 $515,872$ $25,246$ 0.0489 0.9511 31.11 29.5 $487,275$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $346,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$ 0.0372 0.9628 20.066 38.5 $279,973$ $16,278$ 0.0581 0.9419 19.31	26.5	837,846	267,938	0.3198	0.6802	50.12
28.5 $515,872$ $25,246$ 0.0489 0.9511 31.11 29.5 $487,275$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $346,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$ 0.0372 0.9628 20.066 38.5 $279,973$ $16,278$ 0.0581 0.9419 19.31	27.5	568,061	49,602	0.0873	0.9127	34.09
29.5 $487,275$ $25,067$ 0.0514 0.9486 29.59 30.5 $459,333$ $5,352$ 0.0117 0.9883 28.07 31.5 $448,696$ $4,755$ 0.0106 0.9894 27.74 32.5 $443,476$ $7,613$ 0.0172 0.9828 27.45 33.5 $422,436$ $9,900$ 0.0234 0.9766 26.98 34.5 $412,450$ $27,350$ 0.0663 0.9337 26.34 35.5 $379,731$ $28,493$ 0.0750 0.9250 24.60 36.5 $346,456$ $41,016$ 0.1184 0.8816 22.75 37.5 $298,146$ $11,106$ 0.0372 0.9628 20.06 38.5 $279,973$ $16,278$ 0.0581 0.9419 19.31	28.5	515,872	25,246	0.0489	0.9511	31.11
30.5459,3335,3520.01170.988328.0731.5448,6964,7550.01060.989427.7432.5443,4767,6130.01720.982827.4533.5422,4369,9000.02340.976626.9834.5412,45027,3500.06630.933726.3435.5379,73128,4930.07500.925024.6036.5346,45641,0160.11840.881622.7537.5298,14611,1060.03720.962820.0638.5279,97316,2780.05810.941919.31	29.5	487,275	25.067	0.0514	0.9486	29.59
31.5448,6964,7550.01060.989427.7432.5443,4767,6130.01720.982827.4533.5422,4369,9000.02340.976626.9834.5412,45027,3500.06630.933726.3435.5379,73128,4930.07500.925024.6036.5346,45641,0160.11840.881622.7537.5298,14611,1060.03720.962820.0638.5279,97316,2780.05810.941919.31	30.5	459,333	5,352	0.0117	0.9883	28.07
32.5 443,476 7,613 0.0172 0.9828 27.45 33.5 422,436 9,900 0.0234 0.9766 26.98 34.5 412,450 27,350 0.0663 0.9337 26.34 35.5 379,731 28,493 0.0750 0.9250 24.60 36.5 346,456 41,016 0.1184 0.8816 22.75 37.5 298,146 11,106 0.0372 0.9628 20.06 38.5 279,973 16,278 0.0581 0.9419 19.31	31.5	448,696	4,755	0.0106	0.9894	20.01
33.5422,4369,9000.02340.976626.9834.5412,45027,3500.06630.933726.3435.5379,73128,4930.07500.925024.6036.5346,45641,0160.11840.881622.7537.5298,14611,1060.03720.962820.0638.5279,97316,2780.05810.941919.31	32.5	443,476	7,613	0.0172	0.9828	27 45
34.5412,45027,3500.06630.933726.3435.5379,73128,4930.07500.925024.6036.5346,45641,0160.11840.881622.7537.5298,14611,1060.03720.962820.0638.5279,97316,2780.05810.941919.31	33.5	422,436	9,900	0.0234	0.9766	26.98
35.5379,73128,4930.07500.925024.6036.5346,45641,0160.11840.881622.7537.5298,14611,1060.03720.962820.0638.5279,97316,2780.05810.941919.31	34.5	412.450	27.350	0.0663	0.9337	26.34
36.5 346,456 41,016 0.1184 0.8816 22.75 37.5 298,146 11,106 0.0372 0.9628 20.06 38.5 279,973 16,278 0.0581 0.9419 19.31	35.5	379.731	28,493	0.0750	0.9250	24 KN
37.5 298,146 11,106 0.0372 0.9628 20.06 38.5 279,973 16,278 0.0581 0.9419 19.31	36.5	346.456	41 016	0.1184	0 8816	27 75 グク 75
38.5 279,973 16,278 0.0581 0.9419 19.31	37.5	298.146	11,106	0.0372	0.9628	20 06
	38.5	279,973	16.278	0.0581	0,9419	19.31

ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	251,722	6,016	0.0239	0.9761	18.19
40.5	202,576	13,792	0.0681	0.9319	17.75
41.5	185,553	4,734	0.0255	0.9745	16.55
42.5	174,409	12,834	0.0736	0.9264	16.12
43.5	158,676	4,230	0.0267	0.9733	14.94
44.5	148,166	3,795	0.0256	0.9744	14.54
45,5	140,490	3,072	0.0219	0.9781	14.17
46.5	132,817	1,728	0.0130	0.9870	13.86
47.5	127,991	3,019	0.0236	0.9764	13.68
48.5	124,095	3,626	0.0292	0.9708	13.35
49.5	120,115	3,158	0.0263	0.9737	12.96
50.5	115,790	4,761	0.0411	0.9589	12.62
51.5	110,723	8,861	0.0800	0.9200	12.10
52.5	101,423	1,975	0.0195	0.9805	11.13
53.5	98,581	4,338	0.0440	0.9560	10.92
54.5	93,727	1,074	0.0115	0.9885	10,44
55.5	92,239	7,782	0.0844	0.9156	10.32
56.5	79,221	7,095	0.0896	0.9104	9.45
57.5	71,189	16,169	0.2271	0.7729	8.60
58.5	53,899	3,061	0.0568	0.9432	6.65
59.5	49,799	3,010	0.0604	0.9396	6.27
60.5	45,861	1,793	0.0391	0.9609	5.89
61.5	43,470	2,324	0.0535	0.9465	5.66
62.5	40,021	4,733	0.1183	0.8817	5.36
63.5	34,515	1,164	0.0337	0.9663	4.72
64.5	33,269	2,643	0.0794	0.9206	4.57
65.5	30,626	5,853	0.1911	0.8089	4.20
66.5	24,773	3,507	0.1416	0.8584	3.40
67.5	21,265	1,840	0.0865	0.9135	2.92
68.5	19,425	1,031	0.0531	0.9469	2.67
69.5	18,395	1,294	0.0703	0.9297	2.52
70.5	17,101	595	0.0348	0.9652	2.35
71.5	16,506	1,090	0.0660	0.9340	2.27
72.5	15,417	631	0.0409	0.9591	2.12
73.5	14,786	1,322	0.0894	0.9106	2.03
74.5	13,464	785	0.0583	0.9417	1.85
75.5	12,672	938	0.0740	0.9260	1.74
76.5	11,734	726	0.0619	0.9381	1.61
77.5	11,008	5,312	0.4825	0.5175	1.51
78.5	5,697	179	0.0313	0.9687	0.78

ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	5,518	171	0.0310	0.9690	0.76
80.5	5,347	301	0.0564	0,9436	0.73
81.5	5,046	369	0.0732	0.9268	0.69
82.5	4,676	94	0.0200	0.9800	0.64
83,5	4,583	2,302	0.5023	0.4977	0.63
84.5	2,281	2	0.0010	0.9990	0.31
85.5	2,264	132	0.0584	0.9416	0.31
86.5	2,132		0.0000	1.0000	0.29
87.5	2,132	14	0.0067	0.9933	0.29
88.5	2,117	5	0.0024	0.9976	0.29
89.5	2,112		0.0000	1.0000	0.29
90.5	2,112		0.0000	1.0000	0.29
91.5	2,112		0.0000	1.0000	0.29
92.9	2,112		0.0000	1.0000	0.29
93.5	2,112		0.0000	1.0000	0.29
95 5	2,112 2112		0.0000	1.0000	0.29
96 5	2,112	482	0.0000	1.0000	0.29
97.5	1,631	402	0.2200	1 0000	0.23
98.5	1,631		0.0000	1.0000	0.23
99.5	1,631		0.0000	1.0000	0.23
100.5	1,631	223	0.1366	0.8634	0.23
101.5	1,408	216	0.1535	0.8465	0.19
102.5	1,192	310	0.2602	0.7398	0.16
103.5	882	309	0.3502	0.6498	0.12
104.5	573	451	0.7863	0.2137	0.08
105.5	122	85	0.6942	0.3058	0.02
106.5	37		0.0000	1.0000	0.01
107.5	37		0.0000	1.0000	0.01
108.5	37		0.0000	1.0000	0.01
109.5	37		0.0000	1.0000	0.01
110.5	37		0.0000	1.0000	0.01
111.5	37		0.0000	1.0000	0.01
112.5	37		0.0000	1.0000	0.01
113.5	37		0.0000	1.0000	0.01
114.5	37		0.0000	1.0000	0.01
115.5	37		0.0000	1.0000	0.01
116.5	37		0.0000	1.0000	0.01
117.5	37		0.0000	1.0000	0.01
TT8.2	37		0.0000	1.0000	0.01

ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
119.5	37		0.0000	1.0000	0 01
120.5	37		0.0000	1.0000	0.01
121.5	37		0.0000	1.0000	0.01
122.5	37		0.0000	1.0000	0.01
123.5	37		0.0000	1.0000	0.01
124.5	37		0.0000	1.0000	0.01
125.5	37		0.0000	1.0000	0.01
126.5	37		0.0000	1.0000	0.01
127.5	37		0.0000	1.0000	0.01
128.5	37		0.0000	1.0000	0.01
129.5	37		0.0000	1.0000	0.01
130.5	37		0.0000	1.0000	0.01
131.5	37		0.0000	1.0000	0.01
132.5	37		0.0000	1.0000	0.01
133.5	37		0.0000	1.0000	0.01
134.5	37		0.0000	1.0000	0.01
135.5	37		0.0000	1.0000	0.01
136.5	37		0.0000	1.0000	0.01
137.5	37		0.0000	1.0000	0.01
138.5	37		0.0000	1.0000	0.01
139.5	37	25	0.6666	0.3334	0.01
140.5	12	12	1.0000		0.00
141.5		·			

ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1868-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	18,800,845		0.0000	1.0000	100.00
0.5	15,200,611	18,108	0.0012	0.9988	100.00
1.5	10,998,492	29,203	0.0027	0.9973	99.88
2.5	9,929,454	5,810	0.0006	0.9994	99.62
3.5	9,046,318	7,746	0.0009	0.9991	99.56
4.5	8,119,256	4,150	0.0005	0.9995	99.47
5.5	7,304,515	10,511	0.0014	0.9986	99.42
6.5	6,167,194	47,588	0.0077	0.9923	99.28
7.5	5,559,155	8,239	0.0015	0.9985	98.51
8.5	4,971,331	8,197	0.0016	0.9984	98.37
9.5	4,550,546	12,448	0.0027	0,9973	98.20
10.5	4,057,030	92,039	0.0227	0.9773	97.94
11.5	3,852,399	18,239	0.0047	0.9953	95.71
12.5	3,627,790	18,657	0.0051	0.9949	95.26
13.5	3,515,543	29,888	0.0085	0.9915	94.77
14.5	2,809,860	52,443	0.0187	0.9813	93.96
15.5	2,671,045	43,521	0.0163	0.9837	92.21
16.5	2,448,532	51,453	0.0210	0.9790	90.71
17.5	2,254,670	107,520	0.0477	0.9523	88.80
78.2	1,923,866	90,512	0.0470	0.9530	84.57
19.5	1,776,259	116,322	0.0655	0.9345	80.59
20.5	1,571,882	67,512	0.0429	0.9571	75.31
21.5	1,407,447	78,388	0.0557	0.9443	72.08
22.5	1,196,433	73,427	0.0614	0.9386	68.06
23.5	1,039,880	99,851	0.0960	0.9040	63.89
24.5	899,648	142,582	0.1585	0.8415	57,75
25.5	835,691	131,084	0.1569	0.8431	48.60
26.5	678,873	267,938	0.3947	0.6053	40.98
27.5	416,830	49,602	0.1190	0.8810	24.80
28.5	368,006	25,246	0.0686	0.9314	21.85
29.5	342,403	25,067	0.0732	0.9268	20.35
30.5	318,071	5,352	0.0168	0.9832	18.86
31.5	311,814	4,755	0.0152	0.9848	18.55
32.5	310,979	7,613	0.0245	0.9755	18.26
33.5	294,395	9,900	0.0336	0.9664	17.82
34.5	287,998	27,350	0.0950	0.9050	17.22
35.5	259,454	28,493	0.1098	0.8902	15.58
36.5	244,270	41,016	0,1679	0,8321	13.87
37.5	200,487	11,106	0.0554	0.9446	11.54
38.5	191,080	16,278	0.0852	0.9148	10.90

ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	172,205	6,016	0.0349	0.9651	9.97
40.5	141,924	13,792	0.0972	0.9028	9.62
41,5	131,166	4,734	0.0361	0.9639	8.69
42.5	125,370	12,834	0.1024	0.8976	8.38
43.5	113,261	4,230	0.0373	0.9627	7.52
44.5	105,812	3,795	0.0359	0.9641	7.24
45.5	103,165	3,072	0.0298	0.9702	6.98
46.5	97,236	1,728	0.0178	0.9822	6.77
47.5	95,513	3,019	0.0316	0.9684	6.65
48.5	97,468	3,626	0.0372	0.9628	6.44
49.5	96,696	3,158	0.0327	0.9673	6.20
50.5	93,506	4,761	0.0509	0.9491	6.00
51.5	88,965	8,861	0.0996	0.9004	5.69
52.5	80,089	1,975	0.0247	0.9753	5.13
53.5	77,833	4,338	0.0557	0.9443	5.00
54.5	74,118	1,074	0.0145	0.9855	4.72
55.5	73,649	7,782	0.1057	0.8943	4.65
56.5	61,625	7,095	0.1151	0.8849	4.16
57.5	54,390	16,169	0.2973	0.7027	3.68
58.5	38,075	3,061	0.0804	0.9196	2.59
59.5	34,748	3,010	0.0866	0,9134	2.38
60.5	36,327	1,793	0.0493	0.9507	2.17
61.5	34,032	2,324	0.0683	0.9317	2.07
62.5	30,716	4,733	0.1541	0.8459	1.92
63.5	25,636	1,164	0.0454	0.9546	1.63
64.5	25,194	2,643	0.1049	0.8951	1.55
65.5	25,162	5,853	0.2326	0.7674	1.39
66.5	20,833	3,507	0.1684	0.8316	1.07
67.5	17,894	1,840	0.1028	0.8972	0.89
68.5	17,093	1,031	0.0603	0.9397	0.80
69.5	16,263	1,294	0.0796	0.9204	0.75
70.5	14,984	595	0.0397	0.9603	0.69
71.5	14,389	1,090	0.0757	0.9243	0.66
72.5	13,299	631	0.0474	0.9526	0.61
73.5	12,668	1,322	0.1043	0.8957	0.58
74.5	11,352	785	0.0691	0.9309	0.52
75.5	10,560	938	0.0888	0.9112	0.49
76.5	9,622	726	0.0755	0.9245	0.44
77.5	8,896	5,312	0.5971	0.4029	0.41
78.5	3,584	179	0.0498	0.9502	0.16

ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2015

EXPERIENCE BAND 1996-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	3,887	171	0.0439	0.9561	0.16
80.5	3,717	301	0.0811	0.9189	0.15
81.5	3,415	369	0.1081	0.8919	0.14
82.5	3,046	94	0.0308	0.9692	0.12
83.5	3,172	2,302	0.7258	0.2742	0.12
84.5	1,086	2	0.0021	0.9979	0.03
85.5	1,379	132	0.0959	0.9041	0.03
86.5	1,559		0.0000	1.0000	0.03
87.5	2,009	14	0.0071	0.9929	0.03
88.5	2,080	5	0.0024	0.9976	0.03
89.5	2,075		0.0000	1.0000	0.03
90.5	2,075		0.0000	1.0000	0,03
91.5	2,075		0.0000	1.0000	0.03
92.5	2,075		0.0000	1.0000	0.03
93.5	2,075		0.0000	1.0000	0.03
94.5	2,075		0.0000	1.0000	0.03
95.5	2,075		0.0000	1.0000	0.03
96.5	2,075	482	0.2321	0.7679	0.03
97.5	1,593		0.0000	1.0000	0.02
98.5	1,593		0.0000	1.0000	0.02
99.5	1,593		0.0000	1.0000	0.02
100.5	1,593	223	0.1398	0.8602	0.02
101.5	1,371	216	0.1577	0.8423	0.02
102.5	1,154	310	0.2686	0,7314	0.02
103.5	844	309	0.3658	0.6342	0.01
104.5	535	451	0.8413	0.1587	0.01
105.5	85	85	1.0000		0.00
106.5					
107.5					
108.5					
109.5					
110.5					
111.5					
112.5					
113.5					
114.5					
115.5					
116.5					
117.5					

118.5

ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1868-2015		EXPER	IENCE BAN	D 1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5 120.5 121.5 122.5 123.5 124.5 125.5 126.5					
127.5	37		0.0000		
128.5	37		0.0000		
129.5	37		0.0000		
130.5	37		0.0000		
131.5	37		0.0000		
132.5	37		0.0000		
133.5	37		0.0000		
134.5	37		0.0000		
135.5	37		0.0000		
136.5	37		0.0000		
137.5	37		0.0000		
138.5	37		0.0000		
139.5	37	25	0.6666		
140.5	12	12	1.0000		
141.5					

AQUA OHIO, INC. ACCOUNT 335 FIRE HYDRANTS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 335 FIRE HYDRANTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1888-2015

EXPERIENCE BAND 1888-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	24,253,848	2,858	0.0001	0.9999	100.00
0.5	22,162,473	15,904	0.0007	0.9993	99.99
1.5	21,032,170	18,268	0.0009	0.9991	99.92
2.5	20,192,996	13,300	0.0007	0.9993	99.83
3.5	19,592,421	13,306	0.0007	0.9993	99.76
4.5	18,875,068	49,713	0.0026	0.9974	99.70
5.5	18,254,456	27,365	0.0015	0.9985	99.43
6.5	17,912,469	32,549	0.0018	0.9982	99.28
7.5	17,117,527	13,500	0.0008	0.9992	99.10
8.5	16,178,053	14,137	0.0009	0.9991	99.03
9.5	15,254,922	26,459	0.0017	0.9983	98.94
10.5	14,557,061	8,565	0.0006	0.9994	98.77
11.5	13,924,931	27,002	0.0019	0.9981	98.71
12.5	13,255,210	23,040	0.0017	0.9983	98.52
13.5	12,367,616	16,734	0.0014	0.9986	98.35
14.5	11,960,610	12,280	0.0010	0.9990	98.21
15.5	10,972,369	16,155	0.0015	0.9985	98.11
16.5	10,215,300	22,567	0.0022	0.9978	97.97
17.5	9,780,777	11,597	0.0012	0.9988	97.75
18.5	9,321,794	23,961	0.0026	0.9974	97.64
19.5	8,696,673	10,682	0.0012	0.9988	97.39
20.5	8,142,529	24,519	0.0030	0.9970	97.27
21.5	7,598,487	33,611	0.0044	0.9956	96.97
22.5	7,118,920	41,058	0.0058	0.9942	96.54
23.5	6,320,628	14,951	0.0024	0.9976	95.99
24.5	5,923,971	24,580	0.0041	0.9959	95.76
25.5	5,487,394	24,133	0.0044	0.9956	95.36
26.5	5,060,470	7,812	0.0015	0.9985	94.94
27.5	4,597,217	9,282	0.0020	0.9980	94.80
28.5	4,134,154	13,438	0.0033	0.9967	94.61
29.5	3,711,569	18,590	0.0050	0.9950	94.30
30.5	3,264,350	11,099	0.0034	0.9966	93.83
31.5	3,011,765	6,607	0.0022	0.9978	93.51
32.5	2,817,806	9,623	0.0034	0.9966	93.30
33.5	2,691,434	7,113	0.0026	0.9974	92.98
34.5	2,543,377	4,529	0.0018	0.9982	92.74
35.5	2,373,631	7,586	0.0032	0.9968	92.57
36.5	2,133,654	14,775	0.0069	0.9931	92.28
37.5	1,897,550	4,255	0.0022	0.9978	91.64
38,5	1,794,513	16,098	0.0090	0.9910	91.43

ACCOUNT 335 FIRE HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2015

EXPERIENCE BAND 1888-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	1,678,789	3,955	0.0024	0.9976	90.61
40.5	1,558,229	7,978	0.0051	0.9949	90.40
41.5	1,416,899	6,909	0.0049	0.9951	89.94
42.5	1,267,699	6,009	0.0047	0.9953	89.50
43.5	1,182,912	4,321	0.0037	0,9963	89.07
44.5	1,094,891	1,793	0.0016	0.9984	88.75
45.5	1,038,514	9,167	0.0088	0.9912	88.60
46.5	959,226	4,141	0.0043	0.9957	87.82
47.5	886,930	9,298	0.0105	0.9895	87,44
48.5	821,323	2,769	0.0034	0.9966	86.52
49.5	767,033	5,110	0.0067	0.9933	86.23
50.5	716,616	8,319	0.0116	0.9884	85.66
51.5	619,971	17,162	0.0277	0.9723	84.66
52.5	542,015	7,552	0.0139	0.9861	82.32
53.5	497,521	4,668	0.0094	0.9906	81.17
54.5	443,418	6,155	0.0139	0.9861	80,41
55.5	397,643	6,233	0.0157	0.9843	79.29
56.5	337,823	2,960	0.0088	0.9912	78.05
57.5	301,758	2,102	0.0070	0.9930	77.37
58.5	270,771	3,044	0.0112	0.9888	76.83
59.5	235,537	2,541	0.0108	0.9892	75.97
60.5	213,442	3,218	0.0151	0.9849	75.15
61.5	184,138	1,568	0.0085	0.9915	74.01
62.5	169,680	1,121	0.0066	0,9934	73.38
63.5	157,140	1,730	0.0110	0.9890	72.90
64.5	144,771	1,192	0.0082	0.9918	72.09
65.5	132,036	2,452	0.0186	0.9814	71.50
66.5	122,368	2,149	0.0176	0.9824	70.17
67.5	115,802	728	0.0063	0.9937	68.94
68.5	112,006	2,190	0.0195	0.9805	68.51
69.5	108,120	1,226	0.0113	0.9887	67.17
70.5	105,353	549	0.0052	0.9948	66.41
71.5	102,983	823	0.0080	0.9920	66.06
72.5	101,885	1,163	0.0114	0.9886	65.53
73.5	98,356	651	0.0066	0.9934	64.79
74.5	96,046	572	0.0060	0.9940	64.36
75.5	93,882	129	0.0014	0.9986	63.97
76.5	89,767	1,063	0.0118	0.9882	63.89
77.5	88,087	1,221	0.0139	0.9861	63.13
78.5	84,673	1,574	0.0186	0.9814	62.26

AQUA OHIO, INC. ACCOUNT 341.10 TRANSPORTATION EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 341.10 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1982-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	7,284,123		0.0000	1.0000	100.00
0.5	6,880,365		0.0000	1.0000	100.00
1.5	6,438,436	19,013	0.0030	0.9970	100.00
2.5	5,897,490	101,782	0.0173	0.9827	99.70
3.5	5,120,844	106,974	0.0209	0.9791	97.98
4.5	4,584,850	515,254	0.1124	0.8876	95.94
5.5	3,747,708	214,955	0.0574	0.9426	85.16
6.5	3,391,818	312,684	0.0922	0.9078	80.27
7.5	2,443,678	568,891	0.2328	0.7672	72.87
8.5	1,606,850	271,700	0.1691	0,8309	55.91
9.5	1,347,897	127,376	0.0945	0.9055	46,45
10.5	1,220,521	210,628	0.1726	0.8274	42.06
11.5	992,428	192,790	0.1943	0.8057	34.80
12.5	848,892	164,414	0.1937	0.8063	28.04
13.5	669,381	228,040	0.3407	0,6593	22.61
14.5	364,296	27,639	0.0759	0.9241	14.91
15.5	328,125	58,983	0.1798	0.8202	13.78
16.5	269,142	142,032	0.5277	0.4723	11.30
17.5	75,471	31.607	0.4188	0.5812	5.34
18.5	42,673	12,800	0.3000	0.7000	3.10
19.5	27.580		0 0000	1 0000	2 17
20.5	27,580	10.493	0 3805	0 6195	2.17
21 5	17 087	1 703	0.0997	0.9003	1 35
22 5	16 984	14 567	0.0557	0 1423	1 21
22.5	1 794	44,007	0.0000	1 0000	1.21 0 17
23.5	1 704		0.0000	1 0000	0.17
27.5	1 704		0.0000	1 0000	0.17
40.0 ne e	1 704		0.0000	1 0000	0.17
20.0	1,794	1 704	0.0000	1.0000	0.17
27.5	1,/94	1,794	T.0000		0.17
28.5					

ACCOUNT 341.10 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1982-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	3,870,120		0.0000	1.0000	100,00
0.5	3,415,562		0.0000	1.0000	100.00
1.5	2,904,250	19,013	0.0065	0.9935	100.00
2.5	2,791,749	30,161	0.0108	0.9892	99.35
3.5	2,291,385		0.0000	1.0000	98.27
4.5	2,192,883	8,616	0.0039	0.9961	98.27
5.5	2,198,344	82,556	0.0376	0.9624	97.89
6.5	2,132,507	231,366	0.1085	0.8915	94.21
7.5	1,554,762	325,692	0.2095	0.7905	83.99
8.5	1,273,916	222,540	0.1747	0.8253	66.39
9.5	1,179,327	111,393	0.0945	0.9055	54.80
10.5	1,103,052	200,518	0.1818	0.8182	49.62
11.5	924,989	192,790	0.2084	0.7916	40.60
12.5	780,848	164,414	0.2106	0.7894	32.14
13.5	634,331	228,040	0.3595	0.6405	25.37
14.5	327,506	27,639	0.0844	0.9156	16.25
15.5	304,161	58,983	0.1939	0.8061	14.88
16.5	267,298	142,032	0.5314	0.4686	11.99
17.5	73,730	31,607	0.4287	0.5713	5.62
18.5	42,673	12,800	0.3000	0.7000	3.21
19.5	25,786		0.0000	1.0000	2.25
20.5	25,786	10,493	0.4069	0.5931	2.25
21.5	15,293	1,703	0.1114	0.8886	1.33
22.5	15,190	14,567	0.9590	0.0410	1.18
23.5	1,794		0.0000	1.0000	0.05
24.5	1,794		0.0000	1.0000	0.05
25.5	1,794		0.0000	1.0000	0.05
26.5	1,794		0.0000	1.0000	0.05
27.5	1,794	1,794	1.0000		0.05
28.5					

ACCOUNT 341.10 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1990-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	2,253,918		0.0000	1.0000	100.00
0.5	2,312,298		0.0000	1.0000	100.00
1.5	2,110,733		0.0000	1.0000	100.00
2.5	1,756,738		0.0000	1.0000	100.00
3.5	1,227,509		0.0000	1.0000	100.00
4.5	904,980		0.0000	1.0000	100.00
5.5	720,804		0.0000	1.0000	100.00
6.5	612,704		0.0000	1.0000	100.00
7.5	153,653	84,223	0.5481	0.4519	100.00
8.5	2,985		0.0000	1.0000	45.19
9.5	54,659		0.0000	1.0000	45.19
10.5	241,437	91,292	0.3781	0.6219	45.19
11.5	346,917	125,149	0.3607	0.6393	28,10
12.5	292,952	85,463	0.2917	0.7083	17,96
13.5	280,708	80,607	0.2872	0.7128	12.72
14.5	170,627	27,639	0.1620	0.8380	9.07
15.5	224,565	40,136	0.1787	0.8213	7.60
16.5	198,141	111,901	0.5648	0.4352	6.24
17.5	39,775	21,697	0.5455	0.4545	2.72
18.5	16,887	12,800	0.7580	0.2420	1.23
19.5	10,733		0.0000	1.0000	0.30
20.5	10,733	10,110	0.9420	0.0580	0.30
21.5	13,449	1,600	0.1190	0.8810	0,02
22.5	13,449	12,826	0.9537	0.0463	0.02
23.5					0.00

AQUA OHIO, INC. ACCOUNT 345 POWER OPERATED EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 345 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2015

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	3,809,970	51,539	0.0135	0.9865	100.00
0.5	3,766,577	89,040	0.0236	0.9764	98.65
1.5	3,424,439	2,340	0.0007	0.9993	96.32
2.5	3,195,172	62,670	0.0196	0.9804	96.25
3.5	2,958,642	11,205	0.0038	0.9962	94.36
4.5	2,749,254	92,132	0.0335	0.9665	94.00
5.5	2,635,995	64,477	0.0245	0.9755	90.85
6.5	2,393,087	18,502	0.0077	0.9923	88.63
7.5	2,309,073	232	0.0001	0.9999	87.95
8.5	2,298,052	124,506	0.0542	0.9458	87.94
9.5	1,942,534	36,903	0.0190	0.9810	83.17
10.5	1,820,463	137,287	0.0754	0.9246	81.59
11.5	1,304,289	103,817	0.0796	0.9204	75.44
12.5	1,202,878	282,325	0.2347	0.7653	69.44
13.5	811,832	108,724	0.1339	0.8661	53.14
14.5	655,892	55,682	0.0849	0.9151	46.02
15.5	560,699	82,479	0.1471	0.8529	42.11
16.5	473,655	34,153	0.0721	0.9279	35.92
17.5	377,045	86,929	0.2306	0.7694	33.33
18.5	232,034	33,000	0.1422	0.8578	25.65
19.5	167,993	29,151	0.1735	0.8265	22.00
20.5	88,013	1,165	0.0132	0.9868	18.18
21.5	86,848	10,921	0.1257	0.8743	17.94
22.5	75,927	13,699	0.1804	0.8196	15.68
23.5	62,228	1,262	0.0203	0.9797	12.85
24.5	125,775	6,500	0.0517	0.9483	12.59
25.5	119,275	1,652	0.0139	0.9861	11.94
26.5	51,307	208	0.0040	0.9960	11.78
27.5	51,099	24,732	0.4840	0.5160	11.73
28.5	26,367	1,318	0.0500	0.9500	6.05
29.5	25,049	16,875	0.6737	0.3263	5.75
30.5	8,174	4,275	0.5230	0.4770	1.88
31.5	3,899	792	0,2032	0.7968	0.89
32,5	3,670	2,563	0.6984	0.3016	0.71
33.5	1,107		0.0000	1.0000	0.22
34.5	1,107		0.0000	1.0000	0.22
35.5	1,107		0.0000	1.0000	0.22
36.5	1,107		0.0000	1.0000	0.22
37.5	1,107		0.0000	1.0000	0.22
38.5	1,107		0.0000	1.0000	0.22

ACCOUNT 345 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2015

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	1,107		0.0000	1.0000	0.22
40.5	1,107		0.0000	1.0000	0.22
41.5	1,107		0.0000	1.0000	0.22
42.5	1,107	418	0.3776	0.6224	0.22
43.5	689	564	0.8186	0.1814	0.13
44.5	125	125	1.0000		0.02
45.5					

ACCOUNT 345 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2015

BEGIN OF INTERVALBEGINNING OF AGEDURING AGE INTERVALRETMT RATIOSURV RATIOBEGIN OF INTERVAL0.03,388,63412,1860.00360.9964100.000.53,449,62088,5450.00270.9974399.641.53,148,1172,3400.00070.999397.082.52,927,23462,6700.02140.978697.013.52,701,26011,2050.00410.995994.334.52,543,63292,1320.03620.963894.545.52,483,48445,8970.01850.981591.126.52,259,15618,5020.00200.999988.708.52,197,025124,5060.05670.943388.699.51,842,73336,9030.02000.980083.6610.51,721,454137,2870.07980.920281.9911.51,219,414103,8170.08510.914975.4512.51,166,161222,3250.24210.757969.0313.5809,823108,7240.13430.865752.3214.5653,88355,4740.08480.915245.2915.5558,89882,4790.14760.852441.4516.5472,60434,1530.07230.927735.3317.5375,99486,9290.23120.768832.7818.5230,98333,0000.14290.857125.20<	AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
INTERVALAGEINTERVALINTERVALRATIORATIOINTERVAL0.03,388,63412,1860.00360.9964100.000.53,449,62088,5450.02570.974399.641.53,148,1172,3400.00070.993397.082.52,927,23462,6700.02140.978697.013.52,701,26011,2050.00410.995994.934.52,543,63292,1320.03620.991889.437.52,175,1422320.00010.999988.708.52,197,025124,5060.05670.943388.699.51,842,73336,9030.02000.980083.6610.51,721,454137,2870.07980.920281.9911.51,219,414103,8170.06510.914975.4512.51,166,161282,3250.24210.757969.0313.5809,823108,7240.13430.855752.3214.5653,88355,4740.08480.915245.2915.5556,89882,4790.14760.852441.4516.5472,60434,1530.07230.927735.3317.5375,99486,9290.23120.768832.7818.5230,98333,0000.14290.857125.2019.5166,94229,1510.17460.82541.6322.575,38413,6990.1817	BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.5 $3,449,620$ $88,645$ 0.0257 0.9743 $99,64$ 1.5 $3,148,117$ $2,340$ 0.0007 0.9993 97.06 2.5 $2,927,234$ $62,670$ 0.0214 0.9786 97.01 3.5 $2,701,260$ $11,205$ 0.0041 0.9959 94.93 4.5 $2,543,632$ $92,132$ 0.0362 0.9638 94.54 5.5 $2,483,484$ $45,997$ 0.0185 0.9918 99.43 7.5 $2,175,142$ 232 0.0001 0.9999 88.70 8.5 $2,197,025$ $124,506$ 0.0567 0.9433 88.69 9.5 $1,842,733$ $36,903$ 0.2200 0.9800 83.66 10.5 $1,721,454$ $137,287$ 0.0798 0.9202 81.99 11.5 $1,219,414$ $103,817$ 0.0851 0.9149 75.45 12.5 $1,166,161$ $282,325$ 0.2421 0.7579 69.03 13.5 $809,823$ $108,724$ 0.1343 0.8657 22.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 2.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0	0.0	3,388,634	12.186	0.0036	0.9964	100 00
1.53,148,1172,3400.00070.999397.082.52,927,23462,6700.02140.978697.013.52,701,26011,2050.00410.995994.934.52,543,63292,1320.03620.963894.545.52,483,48445,8970.01850.981591.126.52,259,15618,5020.00820.991889.437.52,175,1422320.00010.999986.708.52,197,025124,5660.05670.943388.699.51,842,73336,9030.02000.980083.6610.51,721,454137,2870.07980.920281.9911.51,219,414103,8170.08510.914975.4512.51,166,161282,3250.24210.757969.0313.5809,823108,7240.13430.865752.3214.5653,88355,4740.08480.915245.2915.5558,89882,4790.14760.852441.4516.5472,60434,1530.07230.927735.3317.5375,99486,9290.23120.768832.7818.5230,98333,0000.14290.857125.2019.5166,94229,1510.17460.825421.6020.586,9621,1650.01340.986617.8321.5116,8571,6520.01340.986617	0.5	3,449,620	88.545	0.0257	0 9743	99 64
2.5 $2,927,234$ $22,670$ 0.0214 0.9786 97.01 3.5 $2,701,260$ $11,205$ 0.0041 0.9959 94.93 4.5 $2,543,632$ $92,132$ 0.0362 0.9638 94.54 5.5 $2,483,484$ $45,897$ 0.0185 0.9815 91.12 6.5 $2,259,156$ $18,502$ 0.0022 0.9918 89.43 7.5 $2,175,142$ 232 0.0001 0.9999 88.70 8.5 $2,197,025$ $124,506$ 0.0567 0.9433 88.69 9.5 $1,842,733$ $36,903$ 0.0200 0.9800 83.66 10.5 $1,721,454$ $137,287$ 0.0798 0.9202 81.99 11.5 $1,219,414$ $103,817$ 0.0851 0.9149 75.45 12.5 $1,166,161$ $282,325$ 0.2421 0.7579 69.03 13.5 $809,823$ $108,724$ 0.1343 0.8657 52.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $75,384$ $13,699$ 0	1.5	3,148,117	2,340	0 0007	0 9993	97 08
3.5 $2,701,260$ $11,205$ 0.0041 0.9959 $94,93$ 4.5 $2,543,632$ $92,132$ 0.0362 0.9638 $94,54$ 5.5 $2,483,484$ $45,897$ 0.0185 0.9815 91.12 6.5 $2,259,156$ $18,502$ 0.0082 0.9918 89.43 7.5 $2,175,142$ 232 0.0010 0.9999 $88,70$ 8.5 $2,197,025$ $124,506$ 0.0567 0.9433 88.69 9.5 $1,842,733$ $36,903$ 0.0200 0.9800 83.666 10.5 $1,721,454$ $137,287$ 0.0798 0.9202 81.99 11.5 $1,219,414$ $103,817$ 0.0861 0.9149 75.45 12.5 $1,166,161$ $282,325$ 0.2421 0.7579 69.03 13.5 $809,823$ $108,724$ 0.1343 0.8657 52.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ $0.$	2.5	2,927,234	62,670	0 0214	0.9786	97.00
4.5 $2,543,632$ $92,132$ 0.0362 0.9638 $94,54$ 5.5 $2,483,484$ $45,897$ 0.0185 0.9815 91.12 6.5 $2,259,156$ $18,502$ 0.0082 0.9918 89.43 7.5 $2,175,142$ 232 0.0001 0.9999 88.70 8.5 $2,197,025$ $124,506$ 0.0567 0.9433 88.69 9.5 $1,842,733$ $36,903$ 0.0200 0.9800 83.66 10.5 $1,721,454$ $137,287$ 0.0798 0.9202 81.99 11.5 $1,219,414$ $103,817$ 0.0851 0.9149 75.45 12.5 $1,166,161$ $282,325$ 0.2421 0.7579 69.03 13.5 $809,823$ $108,724$ 0.1343 0.8657 52.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,305$ $10,921$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0519	3.5	2,701,260	11 205	0 0041	0.9959	94 93
1.5 $2,483,484$ $45,897$ 0.0185 0.9815 91.12 6.5 $2,259,156$ $18,502$ 0.0082 0.9918 89.43 7.5 $2,175,142$ 232 0.0001 0.9999 88.70 8.5 $2,197,025$ $124,506$ 0.0567 0.9433 88.69 9.5 $1,842,733$ $36,903$ 0.0200 0.9800 83.66 10.5 $1,721,454$ $137,287$ 0.0798 0.9202 81.99 11.5 $1,219,414$ $103,817$ 0.0851 0.9149 75.45 12.5 $1,166,161$ $282,325$ 0.2421 0.7579 69.03 13.5 $809,823$ $108,724$ 0.1343 0.8657 52.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 0.5120 </td <td>4.5</td> <td>2,543,632</td> <td>92 132</td> <td>0 0362</td> <td>0.9638</td> <td>94.55</td>	4.5	2,543,632	92 132	0 0362	0.9638	94.55
6.5 $2,259,156$ $18,502$ 0.0082 0.9918 89.43 7.5 $2,175,142$ 232 0.0001 0.9999 88.70 8.5 $2,197,025$ $124,506$ 0.0567 0.9433 88.69 9.5 $1,842,733$ $36,903$ 0.0200 0.9800 83.66 10.5 $1,721,454$ $137,287$ 0.0798 0.9202 81.99 11.5 $1,219,414$ $103,817$ 0.0851 0.9149 75.45 12.5 $1,166,161$ $282,325$ 0.2421 0.7579 69.03 13.5 $809,823$ $108,724$ 0.1343 0.8657 52.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 <td>5.5</td> <td>2,483,484</td> <td>45 897</td> <td>0.0185</td> <td>0.9030</td> <td>01 10</td>	5.5	2,483,484	45 897	0.0185	0.9030	01 10
1,5,1,12 $16,50,2,0001$ 0.9910 $0.9,10$ 8.5 $2,197,025$ $124,506$ 0.0001 0.9999 $88,70$ 8.5 $2,197,025$ $124,506$ 0.0567 0.9433 88.69 9.5 $1,842,733$ $36,903$ 0.0200 0.9800 83.66 10.5 $1,721,454$ $137,287$ 0.0798 0.9202 81.99 11.5 $1,219,414$ $103,817$ 0.0851 0.9149 75.45 12.5 $1,166,161$ $282,325$ 0.2421 0.7579 69.03 13.5 $809,823$ $108,724$ 0.1433 0.8657 52.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0034 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 <td>6 5</td> <td>2,259,156</td> <td>18 502</td> <td>0.0182</td> <td>0.9919</td> <td>29.43</td>	6 5	2,259,156	18 502	0.0182	0.9919	29.43
1.5 $2,197,025$ $124,506$ 0.0567 0.9433 68.69 9.5 $1,842,733$ $36,903$ 0.0200 0.9800 83.666 10.5 $1,721,454$ $137,287$ 0.0798 0.9202 81.99 11.5 $1,219,414$ $103,817$ 0.0851 0.9149 75.45 12.5 $1,166,161$ $282,325$ 0.2421 0.7579 69.03 13.5 $809,823$ $108,724$ 0.1343 0.8657 52.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,889$ 208 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.5068 0.9492 <t< td=""><td>75</td><td>2,235,130</td><td>10,002</td><td>0.0082</td><td>0.9918</td><td>02.43</td></t<>	75	2,235,130	10,002	0.0082	0.9918	02.43
9.51,842,73336,9030.02000.980083.6610.51,721,454137,2870.07980.920281.9911.51,219,414103,8170.08510.914975.4512.51,166,161282,3250.24210.757969.0313.5809,823108,7240.13430.865752.3214.5653,88355,4740.08480.915245.2915.5558,89882,4790.14760.852441.4516.5472,60434,1530.07230.927735.3317.5375,99486,9290.23120.768832.7818.5230,98333,0000.14290.857125.2019.5166,94229,1510.17460.825421.6020.586,30510,9210.12650.873517.5922.575,38413,6990.18170.818315.3623.561,6851,2620.02050.979512.5724.5125,2326,5000.05190.948112.3125.5118,8571,6520.01390.986111.6826.550,8892080.00410.995911.5127.550,68124,7320.48800.512011.4728.525,9491,3180.05080.94925.8730.58,1744,2750.52300.47701.7531.53,8997920.20320.79680.8432.5<	85	2 197 025	124 504	0.0001	0.9999	00,70
9.5 $1,842,733$ $36,903$ 0.0200 0.9800 83.66 10.5 $1,721,454$ $137,287$ 0.0798 0.9202 81.99 11.5 $1,219,414$ $103,817$ 0.0851 0.9149 75.45 12.5 $1,166,161$ $282,325$ 0.2421 0.7579 69.03 13.5 $809,823$ $108,724$ 0.1343 0.8657 52.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.87 29.5 $24,631$ $16,875$ 0.6851	0.0	2,107,025	124,000	0.0367	0.5433	00.09
10.5 $1,721,454$ $137,287$ 0.0798 0.9202 81.99 11.5 $1,219,414$ $103,817$ 0.0851 0.9149 75.45 12.5 $1,166,161$ $282,325$ 0.2421 0.7579 69.03 13.5 $809,823$ $108,724$ 0.1343 0.8657 52.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0319 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.87 29.5 $24,631$ $16,875$ 0.6851 $0.$	9.5	1,842,733	36,903	0.0200	0.9800	83.66
11.51,219,414103,8170.08510.914975.4512.51,166,161282,3250.24210.757969.0313.5809,823108,7240.13430.865752.3214.5653,88355,4740.08480.915245.2915.5558,89882,4790.14760.852441.4516.5472,60434,1530.07230.927735.3317.5375,99486,9290.23120.768832.7818.5230,98333,0000.14290.857125.2019.5166,94229,1510.17460.825421.6020.586,9621,1650.01340.986617.8321.586,30510,9210.12650.873517.5922.575,38413,6990.18170.818315.3623.561,6851,2620.02050.979512.5724.5125,2326,5000.05190.948112.3125.5118,8571,6520.01390.986111.6826.550,8892080.00410.995911.5127.550,68124,7320.48800.512011.4728.525,9491,3180.05080.94925.8730.58,1744,2750.52300.47701.7531.53,8997920.20320.79680.8432.53,6702,5630.69840.30160.67	10.5	1,721,454	137,287	0.0798	0.9202	81.99
12.51,166,161 $282,325$ 0.2421 0.7579 69.03 13.5 $809,823$ $108,724$ 0.1343 0.8657 52.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0519 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,889$ 208 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.87 29.5 $24,631$ $16,875$ 0.6851 0.3149 5.57 30.5 $8,174$ $4,275$ 0.5230 0.4770 1	11.5	1,219,414	103,817	0.0851	0.9149	75.45
13.5 $809,823$ $108,724$ 0.1343 0.8657 52.32 14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0519 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.87 29.5 $24,631$ $16,875$ 0.6851 0.3149 5.57 30.5 $8,174$ $4,275$ 0.5230 0.4770 1.75 31.5 $3,899$ 792 0.2032 0.7968 0.84 32.5 $3,670$ $2,563$ 0.6984 0.3016 0.67 <td>12.5</td> <td>1,166,161</td> <td>282,325</td> <td>0.2421</td> <td>0.7579</td> <td>69.03</td>	12.5	1,166,161	282,325	0.2421	0.7579	69.03
14.5 $653,883$ $55,474$ 0.0848 0.9152 45.29 15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0519 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.87 29.5 $24,631$ $16,875$ 0.6851 0.3149 5.57 30.5 $8,174$ $4,275$ 0.5230 0.4770 1.75 31.5 $3,899$ 792 0.2032 0.7968 0.84 32.5 $3,670$ $2,563$ 0.6984 0.3016 0.67	13.5	809,823	108,724	0.1343	0.8657	52.32
15.5 $558,898$ $82,479$ 0.1476 0.8524 41.45 16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0519 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,889$ 208 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.87 29.5 $24,631$ $16,875$ 0.6851 0.3149 5.57 30.5 $8,174$ $4,275$ 0.5230 0.4770 1.75 31.5 $3,899$ 792 0.2032 0.7968 0.84 32.5 $3,670$ $2,563$ 0.6984 0.3016 0.67	14.5	653,883	55,474	0.0848	0.9152	45.29
16.5 $472,604$ $34,153$ 0.0723 0.9277 35.33 17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0519 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,889$ 208 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.87 29.5 $24,631$ $16,875$ 0.6851 0.3149 5.57 30.5 $8,174$ $4,275$ 0.5230 0.4770 1.75 31.5 $3,899$ 792 0.2032 0.7968 0.84 32.5 $3,670$ $2,563$ 0.6984 0.3016 0.67	15.5	558,898	82,479	0.1476	0.8524	41.45
17.5 $375,994$ $86,929$ 0.2312 0.7688 32.78 18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0519 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,889$ 208 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.87 29.5 $24,631$ $16,875$ 0.6851 0.3149 5.57 30.5 $8,174$ $4,275$ 0.5230 0.4770 1.75 31.5 $3,899$ 792 0.2032 0.7968 0.84 32.5 $3,670$ $2,563$ 0.6984 0.3016 0.67	16.5	472,604	34,153	0.0723	0.9277	35.33
18.5 $230,983$ $33,000$ 0.1429 0.8571 25.20 19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0519 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,889$ 208 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.87 29.5 $24,631$ $16,875$ 0.6851 0.3149 5.57 30.5 $8,174$ $4,275$ 0.5230 0.4770 1.75 31.5 $3,899$ 792 0.2032 0.7968 0.84 32.5 $3,670$ $2,563$ 0.6984 0.3016 0.67	17.5	375,994	86,929	0.2312	0.7688	32.78
19.5 $166,942$ $29,151$ 0.1746 0.8254 21.60 20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0519 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,889$ 208 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.57 30.5 $8,174$ $4,275$ 0.5230 0.4770 1.75 31.5 $3,899$ 792 0.2032 0.7968 0.84 32.5 $3,670$ $2,563$ 0.6984 0.3016 0.67	18.5	230,983	33,000	0.1429	0.8571	25.20
20.5 $86,962$ $1,165$ 0.0134 0.9866 17.83 21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0519 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,889$ 208 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.87 29.5 $24,631$ $16,875$ 0.6851 0.3149 5.57 30.5 $8,174$ $4,275$ 0.5230 0.4770 1.75 31.5 $3,899$ 792 0.2032 0.7968 0.84 32.5 $3,670$ $2,563$ 0.6984 0.3016 0.67	19.5	166,942	29,151	0.1746	0.8254	21.60
21.5 $86,305$ $10,921$ 0.1265 0.8735 17.59 22.5 $75,384$ $13,699$ 0.1817 0.8183 15.36 23.5 $61,685$ $1,262$ 0.0205 0.9795 12.57 24.5 $125,232$ $6,500$ 0.0519 0.9481 12.31 25.5 $118,857$ $1,652$ 0.0139 0.9861 11.68 26.5 $50,889$ 208 0.0041 0.9959 11.51 27.5 $50,681$ $24,732$ 0.4880 0.5120 11.47 28.5 $25,949$ $1,318$ 0.0508 0.9492 5.87 29.5 $24,631$ $16,875$ 0.6851 0.3149 5.57 30.5 $8,174$ $4,275$ 0.5230 0.4770 1.75 31.5 $3,899$ 792 0.2032 0.7968 0.84 32.5 $3,670$ $2,563$ 0.6984 0.3016 0.67	20.5	86,962	1,165	0.0134	0.9866	17.83
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	21.5	86,305	10,921	0.1265	0.8735	17.59
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	22.5	75,384	13,699	0.1817	0.8183	15.36
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	23.5	61,685	1,262	0.0205	0.9795	12.57
25.5118,8571,6520.01390.986111.6826.550,8892080.00410.995911.5127.550,68124,7320.48800.512011.4728.525,9491,3180.05080.94925.8729.524,63116,8750.68510.31495.5730.58,1744,2750.52300.47701.7531.53,8997920.20320.79680.8432.53,6702,5630.69840.30160.67	24.5	125,232	6,500	0.0519	0.9481	12.31
26.550,8892080.00410.995911.5127.550,68124,7320.48800.512011.4728.525,9491,3180.05080.94925.8729.524,63116,8750.68510.31495.5730.58,1744,2750.52300.47701.7531.53,8997920.20320.79680.8432.53,6702,5630.69840.30160.67	25.5	118,857	1,652	0.0139	0.9861	11.68
27.550,68124,7320.48800.512011.4728.525,9491,3180.05080.94925.8729.524,63116,8750.68510.31495.5730.58,1744,2750.52300.47701.7531.53,8997920.20320.79680.8432.53,6702,5630.69840.30160.67	26.5	50,889	208	0.0041	0.9959	11.51
28.525,9491,3180.05080.94925.8729.524,63116,8750.68510.31495.5730.58,1744,2750.52300.47701.7531.53,8997920.20320.79680.8432.53,6702,5630.69840.30160.67	27.5	50,681	24,732	0.4880	0.5120	11.47
29.524,63116,8750.68510.31495.5730.58,1744,2750.52300.47701.7531.53,8997920.20320.79680.8432.53,6702,5630.69840.30160.67	28.5	25,949	1,318	0.0508	0.9492	5.87
30.58,1744,2750.52300.47701.7531.53,8997920.20320.79680.8432.53,6702,5630.69840.30160.67	29.5	24,631	16,875	0.6851	0.3149	5.57
31.53,8997920.20320.79680.8432.53,6702,5630.69840.30160.67	30.5	8,174	4,275	0.5230	0.4770	1.75
32.5 3,670 2,563 0.6984 0.3016 0.67	31.5	3,899	792	0.2032	0.7968	0.84
• • • • • • • • • • • • • • • • • • • •	32.5	3,670	2,563	0.6984	0.3016	0.67
33.5 1,107 0.0000 1.0000 0.20	33.5	1,107		0.0000	1.0000	0.20
34.5 1,107 0.0000 1.0000 0.20	34.5	1,107		0.0000	1.0000	0.20
35.5 1,107 0.0000 1.0000 0.20	35.5	1.107		0.0000	1.0000	0.20
36.5 1,107 0.0000 1,0000 0.20	36.5	1.107		0.0000	1.0000	0.20
37.5 1.107 0.0000 1.0000 0.20	37.5	1.107		0.0000	1,0000	0.20
38.5 1,107 0.0000 1.0000 0.20	38.5	1,107		0.0000	1.0000	0.20

ACCOUNT 345 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2015

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	1,107		0.0000	1.0000	0.20
40.5	1,107		0.0000	1.0000	0.20
41.5	1,107		0.0000	1.0000	0.20
42.5	1,107	418	0.3776	0.6224	0.20
43.5	689	564	0.8186	0.1814	0.13
44.5	125	125	1.0000		0.02
45.5					

PART VIII. NET SALVAGE STATISTICS

ACCOUNT 304.10 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY

SUMMARY OF BOOK SALVAGE

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1986	1,354		0		О		0
1987							
1988							
1989							
1990							
1991	2,827		0	300	11	300	11
1992							
1993	731	5,310	726		0	5,310-	726-
1994	441		0		0		0
1995	108,123		0		0		0
1996	10,238	243	2		0	243-	2 -
1997							
1998	34,447		0		0		0
1999	3,624	2,739	76		0	2,739-	76-
2000	23,843		0		0		0
2001	32,191	1,268	4		0	1,268-	4 -
2002							
2003	397		0		0		0
2004	5,541		0		0		0
2005	6,998		0		0		0
2006	15,496		0		0		0
2007	203,888		0		0		0
2008	1,494		0		0		0
2009	3,229	370	11		0	370-	11-
2010	33,789	4,022	12		0	4,022-	12-
2011	14,234	20,479	144		0	20,479-	144-
2012							
2013	8,734		0		0		0
2014	46,954		0	7,500	16	7,500	16
2015	11,279		0		0		0
TOTAL	569,854	34,431	б	7,800	l	26,631-	5 -
THREE-YE	AR MOVING AVERAG	ES					
86-88	452		0		0		0
87-89			-		-		-
88-90							
89-91	942		0	100	11	100	11
90-92	942		0	100	11	100	11
91-93	1,186	1.770	149	100	8	1,670-	141-
92-94	391	1.770	453		Ō	1,770-	453-
93-95	36,431	1.770	5		0	1.770-	5-
		-, · · · -	-		-		-

ACCOUNT 304.10 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY

SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NÉT	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	\mathbf{PCT}	AMOUNT	\mathbf{PCT}	AMOUNT	PCT
THREE-YEA	R MOVING AVERAGES						
94-96	39,600	81	0		0	81-	0
95-97	39,454	81	0		0	81-	0
96-98	14,895	81	l		0	81-	1 -
97-99	12,690	913	7		0	913-	7 -
98-00	20,638	913	4		0	913-	4 -
99-01	19,886	1,336	7		0	1,336-	7 -
00-02	18,678	423	2		0	423-	2 -
01-03	10,863	423	4		0	423-	4
02-04	1,979		0		0		0
03-05	4,312		0		0		0
04-06	9,345		0		0		0
05-07	75,461		0		0		0
06-08	73,626		0		0		0
07-09	69,537	123	0		0	123-	0
08-10	12,838	1,464	11		0	1,464-	11-
09-11	17,084	8,290	49		0	8,290-	49-
10-12	16,008	8,167	51		0	8,167-	51-
11-13	7,656	6,826	89		0	6,826-	89-
12-14	18,563		0	2,500	13	2,500	13
13-15	22,322		0	2,500	11	2,500	11
FIVE-YEAR	AVERAGE						
11-15	16,240	4,096	25	1,500	9	2,596-	16-

ACCOUNTS 304.20 AND 304.30 STRUCTURES AND IMPROVEMENTS - PUMPING AND WATER TREATMENT

SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET	
****	REGULAR	REMOVAL		SALVAGE	Ξ	SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	100		0		0		0
1981	2,134	1,680	79		0	1,680-	79-
1982	551		0		0		0
1983	283		0		0		0
1984	3,134	30	1		0	30-	1 -
1985	1,920	325	17		0	325-	17-
1986	21,889	18,469	84		0	18,469-	84-
1987	34,601	13,064	38	25	0	13,039-	38-
1988	21,042	100	0		0	100-	0
1989	5,209	436	8	8	0	428-	8 -
1990	19,914	2,820	14		0	2,820-	14-
1991	18,451	22,665	123		0	22,665-	123-
1992	9,348	20,171	216		0	20,171-	216-
1993	13,536	90	1		0	90-	1-
1994	15,944	1,130	7	3,850	24	2,720	17
1995	59,668	21,826	37		0	21,826-	37-
1996	160,207	21,324	13	54,005	34	32,682	20
1997	10,847	21,629	199	52	0	21,577-	199-
1998	183,674	1,103	1	635	0	468-	0
1999	54,055	2,948	5		0	2,948-	5 -
2000	643		0		0		0
2001	51,378		0		0		0
2002	745	694	93		0	694 -	93-
2003	33,443	258	1		0	258-	1-
2004	228,036	13,425	6		0	13,425-	б-
2005	15,750	25,325	161		0	25,325-	161-
2006	58,399	10,391	18		0	10,391-	18-
2007	46,225	8,854	19		0	8,854-	19-
2008	65,739	528	l		0	528-	1-
2009	23,119	9,724	42		0	9,724-	42-
2010	33,700	25,303	75		0	25,303-	75-
2011	41,104	3,429	8		0	3,429-	8 -
2012	12,050		0		0		0
2013	116,721	93,500	80		0	93,500-	80-
2014	15,301		0		0		0
2015	40,950		0		0		0
TOTAL	1,419,810	341,240	24	58,576	4	282,665-	20-
THREE-YEAR	MOVING AVERAGES						
80-82	928	560	60		0	560-	60-
ACCOUNTS 304.20 AND 304.30 STRUCTURES AND IMPROVEMENTS - PUMPING AND WATER TREATMENT

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE	5	SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-Y	EAR MOVING AVERAG	ES					
81-83	989	560	57		0	560-	57-
82~84	1,323	10	1		0	10-	1-
83~85	1,779	118	7		0	118-	7 -
84-86	8,981	6,275	70		0	6,275-	70-
85-87	19,470	10,619	55	8	0	10,611-	54-
86-88	25,844	10,544	41	8	0	10,536-	41-
87-89	20,284	4,533	22	11	0	4,522-	22-
88-90	15,388	1,119	7	3	0	1,116-	7 -
89-91	14,525	8,640	59	3	0	8,638-	59-
90-92	15,904	15,219	96		0	15,219-	96-
91-93	13,778	14,309	104		0	14,309-	104-
92-94	12,943	7,130	55	1,283	10	5,847-	45-
93-95	29,716	7,682	26	1,283	4	6,399-	22-
94-96	78,606	14,760	19	19,285	25	4,525	6
95-97	76,907	21,593	28	18,019	23	3,574-	5 -
96-98	118,243	14,685	12	18,231	15	3,546	3
97-99	82,858	8,560	10	229	0	8,331-	10-
98-00	79,457	1,350	2	212	0	1,139-	1-
99-01	35,359	983	З		0	983-	3 -
00-02	17,589	231	l		0	231-	1-
01-03	28,522	317	1		0	317-	1 -
02-04	87,408	4,792	5		0	4,792-	5 -
03-05	92,410	13,003	14		0	13,003-	14-
04-06	100,729	16,380	16		0	16,380-	16-
05-07	40,125	14,857	37		0	14,857-	37-
06-08	56,788	6,591	12		0	6,591-	12-
07~09	45,027	6,369	14		0	6,369-	14-
08-10	40,852	11,852	29		0	11,852-	29-
09-11	32,641	12,819	39		0	12,819-	39-
10-12	28,951	9,577	33		0	9,577-	33-
11-13	56,625	32,310	57		0	32,310-	57-
12-14	48,024	31,167	65		0	31,167-	65-
13-15	57,657	31,167	54		0	31,167-	54-
FIVE-YEA	AR AVERAGE						
11-15	45,225	19,386	43		0	19,386-	43-

ACCOUNT 304.40 STRUCTURES AND IMPROVEMENTS - TRANSMISSION AND DISTRIBUTION

VEND	REGULAR	COST OF REMOVAL	DOT	GROSS SALVAGE	NET SALVAGE	DOT
IDAR	KEIIKEMENIS	AMOONT	FCI	ANOUNI PCI	ANOUNT	FĻi
1990	12,694		0	0	×	0
1991						
1992						
1993						
1994	3,918	2,562	65	0	2,562-	65-
1995	778		0	0		0
1996						
1997						
1998						
1999						
2000	2,557		0	0		0
2001	16,980		0	0		0
2002						
2003	718		0	0		0
2004						
2005	2,019		0	0		0
2006						
2007						
2008						
2009						
2010						
2011						
2012						
2013						
2014	1,456		0	0		0
2015	13,389		0	0		0
TOTAL	54,510	2,562	5	0	2,562-	5-
THREE-YE	AR MOVING AVERAG	ES				
90-92	4,231		0	0		0
91-93						
92-94	1,306	854	65	0	854-	65-
93-95	1,566	854	55	0	854-	55-
94-96	1,566	854	55	0	854~	55-
95-97	259		0	0		0
96-98						
97-99						
98-00	852		0	0		0
99-01	6,512		0	0		0
00-02	6,512		0	0		0
01-03	5,899		0	0		0

🖄 Gannett Fleming

ACCOUNT 304.40 STRUCTURES AND IMPROVEMENTS - TRANSMISSION AND DISTRIBUTION

	REGULA	R	COST OF REMOVAL		GROSS SALVAGI	र	NET SALVAGE	
YEAR	RETIREME	NTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YEAD	R MOVING	AVERAGES						
02-04		239		0		0		0
03-05		912		0		0		0
04-06		673		0		0		0
05-07		673		0		0		0
06-08								
07-09								
08-10								
09-11								
10-12								
11-13								
12-14		485		0		0		0
13-15	4,	948		0		0		0
FIVE-YEAR	AVERAGE							
11-15	2,	969		0		0		0

ACCOUNT 304.61 STRUCTURES AND IMPROVEMENTS - GENERAL PLANT

VEAD	REGULAR	COST OF REMOVAL	DCT	GROSS SALVAGE		NET SALVAGE	DOM
		MICONT	FÇI	AMOUNT	FCI	AMOUNT	PCI
T 9 9 0	1,323	1,767	134		0	1,767-	134-
1991	2,867		0		0		0
1992	360		0		0		0
1993	12 004						
1994	13,994	5,058	36		0	5,058-	36-
1995	1,604	500	15		0	500-	31-
1007							
1997							
1990							
2000							
2000	10.048	712	7		0	712	7
2002	2,313-	50	2-		0	/13-	2
2003	222.355	2 974	2-		0	2 974-	∠ 1
2004	92,399		- 0		0	2,9/4-	- T
2005	22,000	2.341	Ŷ		v	2 341-	v
2006	3,961	1.083	27		n	1 083-	27-
2007	13,023	_,005	0		õ	1,005	2,
2008	14,171	1.065	8		ō	1 065-	8-
2009	5,202	281	5	96	2	185-	4 -
2010	6,516		ō		0		0
2011	391	13,192	-		0	13.192-	Ū
2012	751		0		ō	,	0
2013	396		0		0		0
2014	14,586		0		0		0
2015	23,946		0		0		0
TOTAL	425,580	29,023	7	96	0	28,927-	7 -
THREE-YE	AR MOVING AVERAG	ES					
90-92	1,517	589	39		0	589-	39-
91-93	1,076		0		0		0
92-94	4,785	1,686	35		0	1,686-	35-
93-95	5,199	1,853	36		0	1,853-	36-
94-96	5,199	1,853	36		0	1,853-	36-
95-97	535	167	31		0	167-	31-
96-98							
97-99							
98-00							
99-01	3,349	238	7		0	238-	7 -
00-02	2,578	254	10		0	254-	10-
01-03	76,697	1,246	2		0	1,246-	2 -

ACCOUNT 304.61 STRUCTURES AND IMPROVEMENTS - GENERAL PLANT

SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	\mathbf{PCT}
THREE - YE	AR MOVING AVERAGE:	S					
02-04	104,147	1,008	1		0	1,008-	1-
03-05	104,918	1,771	2		0	1,771-	2 -
04-06	32,120	1,141	4		0	1,141-	4 -
05-07	5,661	1,141	20		0	1,141-	20-
06-08	10,385	716	7		0	716-	7 -
07-09	10,799	449	4	32	0	417-	4 -
08-10	8,630	449	5	32	0	417-	5-
09-11	4,036	4,491	111	32	1	4,459-	110-
10-12	2,552	4,398	172		0	4,398-	172-
11-13	512	4,398	858		0	4,398-	858-
12-14	5,244		0		0		0
13-15	12,976		0		0		0
FIVE-YEAP	R AVERAGE						
	• • • •						
11-15	8,014	2,638	33		0	2,638-	33-

ACCOUNT 304.63 STRUCTURES AND IMPROVEMENTS - LEASEHOLD IMPROVEMENTS

COST OF GROSS NET REGULAR REMOVAL SALVAGE SALVAGE YEAR RETIREMENTS AMOUNT PCT AMOUNT PCT AMOUNT PCT Ö 1,047 2,581 8,790 12,729 1,125 Ö 8,269 1,892 26,342 1,760 1,760-6,896 246~ 4 -41,855 32,991 125,923 TOTAL 271,195 2,133 1,926-1-THREE-YEAR MOVING AVERAGES 88-90 1,461 89-91 1,209 90-92 91-93 2,930 92-94 7,173 93~95 7,173 94-96 4,243 Ö 95-97 96-98

SUMMARY OF BOOK SALVAGE

🞽 Gannett Fleming

97-99

ACCOUNT 304.63 STRUCTURES AND IMPROVEMENTS - LEASEHOLD IMPROVEMENTS

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAGE:	5					
98-00	375		0		0		0
99-01	3,131		0		0		0
00-02	3,762		0		0		0
01-03	3,387		0		0		0
02-04	631		0		0		0
03-05	8,781		0		0		0
04-06	8,781		0		0		0
05-07	8,781		0		0		0
06-08		587				587-	
07-09	2,299	711	31	42	2	669-	29-
08-10	2,299	711	31	42	2	669-	29-
09-11	2,299	124	5	42	2	82-	4 -
10-12							
11-13	13,952		0		0		0
12-14	24,949		0		0		0
13-15	66,923		0		0		0
FIVE-YEA	R AVERAGE						
11-15	40,154		0		0		0

ACCOUNT 304.70 STRUCTURES AND IMPROVEMENTS - STORES, SHOP AND GARAGE

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT	PCT
1990	1,745	3,250	186	0	3,250-	186-
1991					·	
1992						
1993						
1994						
1995						
1996						
1997	135		0	0		0
1998						
1999						
2000	2,453	297	12	0	297-	12-
2001	3,100	220	7	0	220-	7 -
2002						
2003						
2004						
2005						
2006						
2007	24,837		0	0		0
2008	199		0	0		0
2009						
2010						
2011	4,068		0	0		0
2012						
2013	609		0	0		0
2014						
2015						
TOTAL	37,146	3,767	10	0	3,767-	10-
THREE-YEA	R MOVING AVERAGE	S				
90-92	582	1,083	186	0	1,083-	186-
91-93						
92-94						
93-95						
94-96						
95-97	45		0	0		0
96-98	45		0	0		0
97-99	45		0	0		0
98-00	818	99	12	0	99-	12-
99-01	1,851	172	9	0	172-	9-
00-02	1,851	172	9	0	172-	9-
01-03	1,033	73	7	0	73-	7 ~



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ACCOUNT 304.70 STRUCTURES AND IMPROVEMENTS - STORES, SHOP AND GARAGE

	REGIILAR	COST OF REMOVAL		GROSS		NET	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAGES						
02-04							
03-05							
04-06							
05-07	8,279		0		0		0
06-08	8,345		0		0		0
07-09	8,345		0		0		0
08-10	66		0		0		0
09-11	1,356		0		0		0
10-12	1,356		0		0		0
11-13	1,559		0		0		0
12-14	203		0		0		0
13-15	203		0		0		0
FIVE-YEA	R AVERAGE						
11-15	935		0		0		0

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGI AMOUNT	e PCT	NET SALVAGE AMOUNT	PCT
1988	3,051	2,760	90		0	2,760~	90-
1989							
1990							
1991							
1992							
1993							
1994							
1995	798,420		0		0		0
1996							
1997							
1998							
1999							
2000							
2001							
2002							
2003							
2004	983		0		0		0
2005				136		136	
2006		59,474				59,474-	
2007							
2008	317,411		0		0		0
2009	48,000		0		0		0
2010							
2011							
2012	3		~		_		
2013	3,000		U		0		0
2014							
2013							
TOTAL	1,171,429	62,234	5	136	0	62,099-	5-
THREE-YE	AR MOVING AVERAGE	S					
88-90	1,017	920	90		0	920-	90-
89-91							
90-92						<i>a</i> ,	
91-93							
92-94							
93-95	266,140		0		0		0
94-96	266,140		0		0		0
95-97	266,140		0		0		0
96-98							
97-99							



ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	ኮርጥ
THREE-YE	AR MOVING AVERAGES						
98-00							
99-01		<i>i</i>					
00-02							
01-03							
02-04	328		0		٥		0
03-05	328		0	45	14	A E	U 14
04-06	328	19,825		45	14	40 19 790	74
05-07		19,825		45		19,780-	
06-08	105,804	19,825	19		٥	19 975.	10
07-09	121,804	•	0		Ő	19,0294	19~
08-10	121,804	,	0		Ô		0
09~11	16,000		0		0 0		0
10-12					Ū		U
11-13	1,188		0		٥		n
12~14	1,188		0		0 0		0
13-15	1,188		0		n		0
			-		0		U
FIVE-YEAR	AVERAGE						
11-15	713		0		0		0

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1987	6,816		0		0		0
1988							
1989							
1990	5,151	8,504	165		0	8,504-	165-
1991	1,162	1,170	101		0	1,170-	101-
1992	9,710	500	5		0	500-	5 -
1993							
1994	2,450		0		0		0
1995	12,972	18,265	141	76	1	18,189-	140-
1996	1,717	810	47		0	810-	47-
1997		8,341				8,341-	
1998	221,519	75,000	34		0	75,000-	34-
1999	11,941	179,120			0	179,120-	
2000	4,418	4,959	112		0	4,959-	112-
2001							
2002							
2003	13,606		0		0		0
2004							
2005	5,130		0		0		0
2006	33,534	1,000	3		0	1,000-	3 ~
2007	1,070		0		0		0
2008	591	213	36		0	213-	36-
2009	253	399	158		0	399-	158~
2010		3,907				3,907-	
2011							
2012							
2013							
2014							
2015	7,429		0		0		0
TOTAL	339,470	302,188	89	76	0	302,113-	89-
THREE-YEA	R MOVING AVERAGES						
87~89	2,272		0		0		0
88-90	1,717	2,835	165		0	2,835-	165-
89-91	2,104	3,225	153		0	3,225-	153-
90-92	5,341	3,391	63		0	3,391-	63-
91-93	3,624	557	15		0	557-	15-
92-94	4,053	167	4		0	167-	4
93-95	5,141	6,088	118	25	0	6,063-	118-
94-96	5,713	6,358	111	25	0	6,333-	111-
95-97	4,896	9,139	187	25	1	9,113-	186-

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAG	Ξ	SALVAGE	
YEAR	RETIREMENTS	AMOUNT	\mathbf{PCT}	AMOUNT	PCT	AMOUNT	PCT
THREE - YE	SAR MOVING AVERAGI	ES					
96-98	74,412	28,050	38		0	28,050-	38-
97-99	77,820	87,487	112		0	87,487-	112-
98-00	79,293	86,360	109		0	86,360~	109-
99-01	5,453	61,360			0	61,360-	
00-02	1,473	1,653	112		0	1,653-	112-
01-03	4,535		0		0		0
02-04	4,535		0		0		0
03-05	б,245		0		0		0
04-06	12,888	333	3		0	333-	3 -
05-07	13,245	333	3		0	333-	3 -
06-08	11,732	404	3		0	404-	3 -
07-09	638	204	32		0	204-	32-
08-10	281	1,506	535		0	1,506-	535-
09-11	84	1,435			0	1,435-	
10-12		1,302				1,302-	
11-13							
12-14							
13-15	2,476		0		0		0
FIVE-YEA	R AVERAGE						
11-15	1,486		0		0		0

ACCOUNT 307 WELLS AND SPRINGS

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1983	4,398		0		0		0
1984	2,722		0		0		0
1985	21,408		0		0		0
1986	25,538	604	2		0	604-	2 -
1987	20,015	10,795	54		0	10,795-	54-
1988							
1989	5,719		0		0		0
1990	6,399	300	5		0	300-	5 -
1991	11,435	3,192	28		0	3,192-	28-
1992	4,055	100	2		0	100-	2
1993	10,921	100	l		0	100-	1-
1994	8,744	2,126	24		0	2,126-	24-
1995	1,808	1,210	67		0	1,210-	67-
1996	19,061	4,360	23		0	4,360-	23-
1997	17,587	9,064	52		0	9,064-	52-
1998	12,200	2,500	20		0	2,500-	20-
1999	10,238		0		0		0
2000	24,234	7,363	30		0	7,363-	30-
2001	26,606	5,929	22		0	5,929-	22-
2002		,					
2003	33,801	7,031	21		0	7,031-	21-
2004	59,214		0		0		0
2005	57,003		0		0		0
2006	11,514	22,551	196		0	22,551-	196-
2007	5,361	3,699	69		0	3,699-	69-
2008	22,815	1,379	6		0	1,379-	б-
2009	2,419	1,577	65		0	1,577-	65-
2010	67,303		0		0		0
2011	32,484	1,736	5		0	1,736-	5~
2012	2,086		0		0		0
2013	984		0		0		0
2014	12,698		0		0		0
2015	43,809	13,082	30		0	13,082-	30-
TOTAL	584,578	98,699	17		0	98,699-	17-
THREE-YE	AR MOVING AVERAGES						
83-85	9,509		0		0		Ö
84-86	16,556	201	1		0	201-	1-
85-87	22,320	3.800	17		0	3.800-	17-
86-88	15,184	3,800	25		0	3,800-	25-
87-89	8,578	3,598	42		õ	3.598-	42-
	• · ·		_		-	-,	

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ACCOUNT 307 WELLS AND SPRINGS

SUMMARY OF BOOK SALVAGE

		COST OF		GROSS	NET	
	REGULAR	REMOVAL		SALVAGE	SALVAGE	
YEAR	RETIREMENTS	AMOUNT	\mathbf{PCT}	AMOUNT PC	e amount	PCT
THREE-YE	AR MOVING AVERAGE	2S				
88-90	4,039	100	2	() 100-	2-
89-91	7,851	1,164	15	() 1,164-	15-
90-92	7,296	1,198	16	() 1,198-	16-
91-93	8,804	1,131	13	() 1,131-	13-
92-94	7,906	775	10	() 775-	10-
93-95	7,158	1,145	16	() 1,145-	16-
94-96	9,871	2,565	26	() 2,565-	26-
95-97	12,819	4,878	38	(4,878-	38-
96-98	16,283	5,308	33	(5,308-	33-
97-99	13,342	3,855	29	() 3,855-	29-
98-00	15,557	3,288	21	() 3,288-	21-
99-01	20,360	4,431	22	(4,431-	22-
00-02	16,947	4,431	26	() 4,431-	26-
01-03	20,136	4,320	21	(4,320-	21-
02-04	31,005	2,344	8	(2,344-	8 -
03-05	50,006	2,344	5	(2,344-	5 -
04-06	42,577	7,517	18	(7,517-	18-
05-07	24,626	8,750	36	C	8,750-	36-
06-08	13,230	9,210	70	C	9,210-	70-
07-09	10,198	2,218	22	(2,218-	22-
08-10	30,846	985	3	(985~	3 -
09-11	34,069	1,104	3	C	1,104-	3
10-12	33,958	579	2	C	579-	2 -
11-13	11,851	579	5	C	579-	5-
12-14	5,256		0	C	1	0
13-15	19,164	4,361	23	C	4,361-	23-
FIVE-YEAR	R AVERAGE					
11-15	18,412	2,964	16	c	2,964-	16-

.

ACCOUNT 309 SUPPLY MAINS

		COST OF		GROSS		NET	
·	REGULAR	REMOVAL		SALVAG	E	SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1986	4,551		0		0		0
1987	5,754		0		0		0
1988		*					
1989	890		0		0		0
1990	701		0		0		0
1991	1,397	1,325	95		0	1,325-	95-
1992							
1993	1,044		0		0		0
1994	70		0		0		0
1995		5,253				5,253-	
1996	9,724		0		0		0
1997	604		0		0		0
1998							
1999							
2000							
2001							
2002	55,991		0		0		0
2003	5,134		0		0		0
2004							
2005	1,340		0		0		0
2006							
2007							
2008	1,044-		0		0		0
2009	104		0		0		0
2010		79-				79	
2011							
2012							
2013							
2014		-					
2015							
TOTAL	86,260	6,499	8		0	6,499-	8 -
THREE-YE	AR MOVING AVERAGES	3					
86-88	3,435		0		0		0
87~89	2.215		0		õ		Ő
88-90	530		0		0		0
89-91	996	442	44		0	442-	- 44-
90-92	699	442	63		0	442-	63-
91-93	814	442	54		0	442-	54-
92-94	371		0		0		0
93-95	371	1,751	472		0	1,751-	472-



ACCOUNT 309 SUPPLY MAINS

SUMMARY OF BOOK SALVAGE

		COST OF	GROSS	NET
	REGULAR	REMOVAL	SALVAGE	SALVAGE
YEAR	RETIREMENTS	AMOUNT PCT	AMOUNT PCT	AMOUNT PCT
THREE-YE	AR MOVING AVERAGE	S		
94-96	3,264	1,751 54	0	1,751- 54-
95-97	3,443	1,751 51	0	1,751- 51-
96-98	3,443	0	0	0
97-99	201	0	0	0
98-00				
99-01				
00-02	18,664	0	0	0
01-03	20,375	0	0	0
02-04	20,375	0	0	0
03-05	2,158	0	0	0
04-06	447	0	0	0
05-07	447	0	0	0
06-08	348-	0	0	0
07-09	313-	0	0	0
08-10	313-	26- 8	0	26 8-
09-11	35	26- 76-	- 0	26 76
10-12		26-		26
11-13				
12-14				

13-15

FIVE-YEAR AVERAGE

11-15

ACCOUNT 310 POWER GENERATION EQUIPMENT

		COST OF		GROSS		NET	
YEAR	REGULAR	AMOUNT	PCT	AMOUNT	PCT	SALVAGE	РĊТ
1000	2.061						
1990	2,861		0		0		0
1997							
1992							
1994	29 784	B 701	20	4 400	15	4 201-	14.
1995	20,104	3,701	23	4,400	13	4,501-	7.4 -
1996							
1997	200		0		0		Ο
1998	200		v	135	ç	135	Ŭ
1999				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
2000							
2001	2,357		0		0		0
2002			_		-		
2003							
2004							
2005							
2006							
2007							
2008							
2009	48,831	51,603	106		0	51,603-	106-
2010		995				995 -	
2011							
2012	3,092		0		0		0
2013							
2014	2,866		0		0		0
2015	9,419		0		0		0
TOTAL	99,410	61,299	62	4,535	5	56,764-	57-
THREE-YEA	AR MOVING AVERAG	ES					
90-92	954		0		0		0
91-93							
92-94	9,928	2,900	29	1,467	15	1,434-	14-
93-95	9,928	2,900	29	1,467	15	1,434-	14-
94-96	9,928	2,900	29	1,467	15	1,434-	14-
95-97	67		0		0		0
96-98	67		0	45	68	45	68
97-99	67		0	45	68	45	68
98-00				45		45	
99-01	786		0		0		0
00-02	786		0		0		0
01-03	786		0		0		0



ACCOUNT 310 POWER GENERATION EQUIPMENT

	REGULAR	COST OF		GROSS	NET
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT PCT
THREE - YEAI	R MOVING AVERAGES				
02-04					
03-05					
04-06					
05-07					
06-08					
07-09	16,277	17,201	106	0	17,201- 106-
08-10	16,277	17,533	108	0	17,533- 108-
09-11	16,277	17,533	108	0	17,533- 108-
10-12	1,031	332	32	0	332- 32-
11-13	1,031		0	0	0
12-14	1,986		0	0	0
13-15	4,095		0	0	0
FIVE-YEAR	AVERAGE				
11-15	3,075		0	0	0

ACCOUNT 311 PUMPING EQUIPMENT

SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	3,354		0		0		0
1981	1,844		0		0		0
1982	4,195	78	2		0	78-	2-
1983	6,076	10,785	178		0	10,785-	178-
1984	13,027	425	3		0	425-	3 -
1985	4,001		0		0		0
1986	28,771	13,416	47	4,712	16	8,704-	30-
1987	21,291	1,853	9	225	1	1,628-	8 -
1988	6,888	3,822	55		0	3,822-	55-
1989	2,737		0		0		0
1990	40,747	20,967	51		0	20,967-	51-
1991	29,971	2,412	8		0	2,412-	8 -
1992	69,441	17,597	25	152	0	17,445-	25-
1993	46,359	18,504	40	9,490	20	9,014-	19-
1994	29,216	21,805	75		0	21,805~	75-
1995	178,876	19,290	11	1,208	1	18,083-	10-
1996	136,284	8,800	6		0	8,800-	6-
1997	95,209	30,964	33	68,362	72	37,398	39
1998	62,295	15,218	24	21,861	35	6,643	11
1999	79,157	16,220	20		0	16,220-	20-
2000	143,276	3,141	2		0	3,141-	2 -
2001	213,294	12,920	6		0	12,920-	6 -
2002	70,759	65,617	93		0	65,617~	93-
2003	246,264	4,507	2		0	4,507-	2-
2004	105,835	2,381	2		0	2,381-	2 -
2005	62,743		0		0		0
2006	158,436	11,051	7		0	11,051-	7 -
2007	111,518	1,122	1	2,500	2	1,378	1
2008	144,221	5,639	4		0	5,639-	4 -
2009	69,049	9,305	13		0	9,305-	13-
2010	218,891	17,256	8		0	17,256-	8 -
2011	100,117	2,647	3		0	2,647-	3 -
2012	43,479	4,479	10		0	4,479-	10-
2013	152,975	5,288	3		0	5,288-	3 -
2014	102,929		0		0		0
2015	265,771		0		0		0
TOTAL	3,069,296	347,509	11	108,511	4	238,999-	8 -
THREE-YEAI	R MOVING AVERAGE	s					
80-82	3,131	26	l		0	26-	1-
81-83	4,038	3,621	90		0	3,621-	90-

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ACCOUNT 311 PUMPING EQUIPMENT

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	\mathbf{PCT}	AMOUNT	PCT	AMOUNT	PCT
THREE - YE	EAR MOVING AVERAG	ES					
82-84	7,766	3,763	48		0	3,763-	48-
83-85	7,701	3,737	49		0	3,737-	49-
84-86	15,266	4,614	30	1,571	10	3,043-	20-
85-87	18,021	5,090	28	1,646	9	3,444-	19-
86-88	18,983	6,364	34	1,646	9	4,718-	25-
87-89	10,305	1,892	18	75	1	1,816-	18~
88-90	16,791	8,263	49		0	8,263-	49-
89-91	24,485	7,793	32		0	7,793-	32-
90~92	46,720	13,659	29	51	0	13,608-	29-
91-93	48,590	12,838	26	3,214	7	9,623-	20-
92-94	48,339	19,302	40	3,214	7	16,088-	33-
93-95	84,817	19,867	23	3,566	4	16,301-	19-
94-96	114,792	16,632	14	403	0	16,229-	14-
95-97	136,790	19,685	14	23,190	17	3,505	3
96-98	97,929	18,327	19	30,074	31	11,747	12
97-99	78,887	20,800	26	30,074	38	9,274	12
98-00	94,909	11,526	12	7,287	8	4,239-	4 -
99-01	145,242	10,760	7		0	10,760-	7-
00-02	142,443	27,226	19		0	27,226-	19-
01-03	176,772	27,681	16		0	27,681-	16-
02-04	140,953	24,168	17		0	24,168-	17-
03-05	138,281	2,296	2		0	2,296-	2 -
04-06	109,005	4,477	4		0	4,477-	4 -
05-07	110,899	4,058	4	833	1	3,224-	3 -
06-08	138,058	5,937	4	833	1	5,104-	4 -
07-09	108,263	5,355	5	833	1	4,522-	4 -
08-10	144,053	10,733	7		0	10,733-	7-
09-11	129,352	9,736	8		0	9,736-	8 -
10-12	120,829	8,127	7		0	8,127-	7 -
11-13	98,857	4,138	4		0	4,138-	4 -
12-14	99,794	3,256	3		0	3,256-	3
13-15	173,891	1,763	1		0	1,763-	1-
FIVE-YEA	R AVERAGE						
11.15	132 054	ე / ნე	~		0	ጎ / ሮን	2-
アエッエン	133,034	£,400	L.		Ų	×,×03**	<u> </u>

ACCOUNT 320 WATER TREATMENT EQUIPMENT

		COST OF		GROSS		NET	
11-11-11-11	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIKEMENTS	AMOUN'I'	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	60		0		0		0
1981	203		0		0		0
1982	54,246	3,366	б		0	3,366-	6 -
1983	6,239	222	4		0	222-	4
1984	3,785	991	26		0	991-	26-
1985	470	1,692	360		0	1,692-	360-
1986	11,971	4,275	36	800	7	3,475-	29-
1987	45,739	12,004	26		0	12,004-	26-
1988	3,252	1,895	58		0	1,895-	58-
1989	38,057	5,688	15	243	1	5,445-	14-
1990	127,266	17,399	14		0	17,399-	14-
1991	50,548	6,454	13		0	б,454-	13-
1992	12,992	3,760	29		0	3,760-	29-
1993	123,013	1,250	1		0	1,250-	1-
1994	29,903	7,000	23		0	7,000-	23-
1995	295,673	51,687	17	500	0	51,187-	17-
1996	70,674	45,080	64	6,493	9	38,587-	55~
1997	268,584	465	0		0	465-	0
1998	82,553	8,652	10	519	1	8,133-	10-
1999	111,114	81,700	74		0	81,700-	74-
2000	44,594	2,025	5		0	2,025-	5-
2001	34,752	23,414	67		0	23,414-	67-
2002	55,922	36,586	65		0	36,586-	65-
2003	188,343	5,478	3		0	5,478-	3 -
2004	878,596	55,233	б		0	55,233-	6 -
2005	109,912		0		0		0
2006	265,384	171,994	65		0	171,994-	65-
2007	101,308	10,439	10		0	10,439-	10-
2008	85,963		0		0		0
2009	35,340	842	2		0	842-	2 -
2010	395,317	8,815	2		0	8,815-	2 -
2011	211,476	97,488	46	882	0	96,606-	46-
2012	93,384		0		0		0
2013	18,801		0		0		0
2014	424,106		0	135	0	135	0
2015	274,565	14,490	5		0	14,490-	5 -
TOTAL	4,554,105	680,384	15	9,572	0	670,812-	15-
THREE-YEAR	MOVING AVERAGES	-					
80-82	18,170	1,122	6		0	1,122-	6 -
81-83	20,229	1,196	б		0	1,196-	6-



ACCOUNT 320 WATER TREATMENT EQUIPMENT

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAG	ES					
82-84	21,423	1,526	7		0	1,526-	7-
83-85	3,498	968	28		0	968-	28-
84-86	5,409	2,319	43	267	5	2,053-	38-
85-87	19,393	5,990	31	267	1	5,724-	30-
86-88	20,320	6,058	30	267	1	5,792-	29-
87-89	29,016	6,529	23	81	0	6,448-	22-
88-90	56,192	8,328	15	81	0	8,247-	15-
89-91	71,957	9,847	14	81	0	9,766-	14-
90-92	63,602	9,204	14		0	9,204-	14-
91-93	62,184	3,821	6		0	3,821-	6
92-94	55,303	4,003	7		0	4,003-	7 -
93-95	149,530	19,979	13	167	0	19,812-	13-
94-96	132,083	34,589	26	2,331	2	32,258-	24-
95-97	211,644	32,410	15	2,331	1	30,079-	14-
96-98	140,604	18,065	13	2,337	2	15,728-	11-
97-99	154,084	30,272	20	173	0	30,099-	20-
98-00	79,421	30,792	39	173	0	30,619-	39-
99-01	63,487	35,713	56		0	35,713-	56-
00-02	45,089	20,675	46		0	20,675-	46-
01-03	93,006	21,826	23		0	21,826-	23-
02-04	374,287	32,432	9		0	32,432-	9-
03-05	392,284	20,237	5		0	20,237-	5-
04-06	417,964	75,742	18		0	75,742-	18-
05-07	158,868	60,811	38		0	60,811-	38-
06-08	150,885	60,811	40		0	60,811-	40-
07-09	74,204	3,760	5		0	3,760-	5-
08-10	172,207	3,219	2		0	3,219-	2
09-11	214,044	35,715	17	294	0	35,421-	17-
10-12	233,392	35,434	15	294	0	35,140-	15-
11-13	107,887	32,496	30	294	0	32,202-	30-
12-14	178,764		0	45	0	45	0
13-15	239,157	4,830	2	45	0	4,785-	2-
FIVE-YEA	R AVERAGE						
11-15	204.466	22 396	11	202	n	77 10 7	11.
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#### ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

#### SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	-
YEAR	RETIREMENTS	AMOUNT	PC.L	AMOUNT	PCT	AMOUNT	PCT
1987	1,008		0		0		0
1988	12,515		0		0		0
1989	991		0		0		0
1990	3,823	1,753	46		0	1,753-	46-
1991	2,452	2,845	116		0	2,845-	116-
1992	7,410	825	11		0	825-	11-
1993	28,907	21,758	75	2,994	10	18,764-	65-
1994	12,024	11,966	100		0	11,966-	100-
1995	750	631	84		0	631-	84-
1996	19,151	9,600	50		0	9,600-	50-
1997	800		0		0		0
1998	22,696		0		0		0
1999	33,021	100	0		0	100-	0
2000	21,453	30,689	143		0	30,689-	143-
2001							
2002	1,247	1,000	80		0	1,000-	80-
2003	133,398	53,603	40		0	53,603-	40-
2004	11,406		0		0		0
2005	177,974		0		0		0
2006		12,195				12,195-	
2007	13,203		0		0		0
2008	10,747	5,376	50		0	5,376-	50~
2009	557	12,000			0	12,000-	
2010	5,690		0		0		0
2011	3,497		0		0		0
2012							
2013	280		0		0		0
2014	51,984		0		0		0
2015	96,466		0		0		0
TOTAL	673,448	164,342	24	2,994	0	161,348-	24-
THREE-YE	AR MOVING AVERAGE	ES					
87-89	4,838		0		0		0
88-90	5,776	584	10		0	584-	10-
89-91	2,422	1,533	63		0	1,533-	63-
90-92	4,562	1,808	40		0	1,808-	40-
91-93	12,923	8,476	66	998	8	7,478-	58-
92-94	16,114	11,516	71	998	6	10,518-	65-
93-95	13,894	11,452	82	998	7	10,454-	75-
94-96	10,642	7,399	70		0	7,399-	70-
95-97	6,900	3,410	49		0	3,410-	49-



Aqua OH December 31, 2015

#### ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

#### SUMMARY OF BOOK SALVAGE

		COST OF		GROSS	NET	
	REGULAR	REMOVAL		SALVAGE	SALVAGE	
YEAR	RETIREMENTS	AMOUNT	$\mathbf{PCT}$	AMOUNT PCT	AMOUNT	$\mathbf{PCT}$
THREE-YE	AR MOVING AVERAGES					
96~98	14,216	3,200	23	0	3,200-	23-
97-99	18,839	33	0	0	33-	0
98-00	25,723	10,263	40	0	10,263-	40-
99-01	18,158	10,263	57	0	10,263-	57-
00-02	7,567	10,563	140	0	10,563-	140-
01-03	44,882	18,201	41	0	18,201-	41-
02-04	48,684	18,201	37	0	18,201-	37-
03-05	107,593	17,868	17	0	17,868-	17-
04-06	63,127	4,065	6	0	4,065-	6-
05-07	63,726	4,065	6	0	4,065-	6 -
06~08	7,983	5,857	73	0	5,857-	73-
07-09	8,169	5,792	71	0	5,792-	71-
08-10	5,664	5,792	102	0	5,792-	102-
09-11	3,248	4,000	123	0	4,000-	123-
10-12	3,062		0	0		0
11-13	1,259		0	0		0
12-14	17,421		0	0		0
13-15	49,577		0	0		0

#### FIVE-YEAR AVERAGE

11-15 30,446

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#### ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

#### SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR R	ETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	5,804	4,579	79	2,955	51	1,624-	28-
1981	47,486	5 4,455	9	50,435	106	45,980	97
1982	6,900	5 4,459	65	425	6	4,034-	- 58-
1983	10,249	9 12,884	126	1,675	16	11,209-	109-
1984	11,150	5 18,600	167	1,864	17	16,736-	150-
1985	60,65:	2 17,882	29	57,636	95	39,754	66
1986	13,301	7 7,445	56	856	6	6,589-	50-
1987	67,893	2 16,442	24	46,944	69	30,502	45
1988	13,56	7 8,350	62	3,476	26	4,874-	36-
1989	3,994	4 6,550	164	1,236	31	5,314-	133-
1990	15,13	3 3,798	25	2,116	14	1,682-	11-
1991	14,16	2 10,413	74	1,905	13	8,508-	60-
1992	134,060	0 9,175	7	3,813	3	5,362-	4 -
1993	97,91	9 5,409	6	5,183	5	226-	0
1994	51,37	7 1.0,734	21	3,339	6	7,395-	14-
1995	804,81	6 12,515	2	190	0	12,325-	2 -
1996	41,15	8 16,303	40	877	2	15,426-	37-
1997	64,73	9 42,666	66	7,382	11	35,285-	55-
1998	57,71	1 47,549	82	6,246	11	41,303-	72-
1999	15,23	2 104,361	685	92,794	609	11,567-	76-
2000	131,16	4 36,713	28	56,577	43	19,864	15
2001	95,51	9 54,669	57	867	1	53,802-	56-
2002	77,98	1 36,027	46		0	36,027~	46-
2003	80,35	9 109,880	137	30-	0	109,910-	137-
2004	232,33	7 155,524	67	60	0	155,464-	67-
2005	661,20	3 69,550	11		0	69,550-	11-
2006	162,23	7 209,562	129		0	209,562-	129-
2007	100,50	2 93,389	93	536	1	92,853-	92-
2008	393,08	9 55,532	14		0	55,532-	14-
2009	76,13	3 342,406	450	155	0	342,251-	450-
2010	174,48	1 399,249	229	1,559	1	397,690-	228-
2011	311,11	2 426,195	137		0	426,199-	137-
2012	94,39	5	0		0		0
2013	126,82	5 8,939	7	1,000	1	7,939-	6 -
2014	258,54	7 720	0		0	720-	0
2015	231,16	9 21,489	) 9	1	0	21,488-	9-
TOTAL	4,744,37	4 2,384,417	50	352,072	7	2,032,345-	43-
THREE-YEAR	MOVING AV	ERAGES					
80-82	20,06	5 4,498	3 22	17,938	89	13,441	67
81-83	21,54	7 7,266	5 34	17,512	81	10,246	48

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#### ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

		COST OF		GROSS	NET		
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	$\mathbf{PCT}$	AMOUNT	$\mathbf{PCT}$	AMOUNT	$\mathbf{PCT}$
THREE-YE	AR MOVING AVERAGE	s					
82-84	9,437	11,981	127	1,321	14	10,660-	113-
83~85	27,352	16,455	60	20,392	75	3,936	14
84-86	28,372	14,642	52	20,119	71	5,476	19
85-87	47,284	13,923	29	35,145	74	21,222	45
86-88	31,589	10,746	34	17,092	54	6,346	20
87-89	28,484	10,448	37	17,219	60	6,771	24
88-90	10,898	6,233	57	2,276	21	3,957-	36-
89-91	11,097	6,920	62	1,752	16	5,168-	47-
90-92	54,452	7,796	14	2,611	5	5,184-	10-
91-93	82,047	8,333	10	3,634	4	4,699-	6-
92-94	94,452	8,439	9	4,112	4	4,328-	5 -
93-95	318,037	9,553	3	2,904	1	6,649-	2 -
94-96	299,117	13,184	4	1,469	0	11,715-	4 -
95-97	303,571	23,828	8	2,816	1	21,012-	7 -
96-98	54,536	35,506	65	4,835	9	30,671-	56-
97-99	45,894	64,859	141	35,474	77	29,385-	64-
98-00	68,036	62,874	92	51,872	76	11,002-	16-
99-01	80,639	65,248	81	50,079	62	15,168-	19-
00-02	101,555	42,470	42	19,148	19	23,322-	23-
01-03	84,620	66,859	79	279	0	66,580-	79-
02-04	130,225	100,477	77	10	0	100,467-	77-
03-05	324,633	111,651	34	10	0	111,641-	34-
04-06	351,926	144,879	41	20	0	144,859-	41-
05-07	307,981	124,167	40	179	0	123,988-	40-
06-08	218,609	119,494	55	179	0	119,316-	55-
07-09	189,908	163,776	86	230	0	163,545-	86-
08-10	214,568	265,729	124	571	0	265,157-	124-
09-11	187,242	389,285	208	571	0	388,713-	208-
10-12	193,329	275,149	142	520	0	274,630-	142-
11-13	177,444	145,046	82	333	0	144,713-	82-
12-14	159,922	3,219	2	333	0	2,886-	2 -
13-15	205,514	10,383	5	334	0	10,049-	5-
FIVE-YEAF	AVERAGE						
11-15	204.409	91.469	45	200	n	91.269-	45-
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#### ACCOUNT 333 SERVICES

#### SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	8,713	32,588	374	440	5	32,148-	369-
1981	8,978	36,840	410	391	4	36,449-	406-
1982	9,061	38,542	425	455	5	38,087-	420-
1983	15,409	51,449	334	765	5	50,684-	329-
1984	13,434	35,702	266	726	5	34,976-	260-
1985	15,061	34,414	228	863	6	33,551-	223-
1986	9,008	50,263	558	538	6	49,725-	552-
1987	14,589	67,446	462	383	3	67,063-	460-
1988	15,865	68,850	434	558	4	68,292-	430-
1989	9,937	58,799	592	4,132	42	54,667-	550-
1990	14,725	57,409	390	119	1	57,290-	389~
1991	10,604	45,710	431	163	2	45,547-	430-
1992	12,103	45,036	372	805	7	44,231-	365-
1993	20,245	58,653	290	180	l	58,473-	289-
1994	9,343	57,166	612	171	2	56,995-	610-
1995	11,652	33,709	289	861	7	32,848-	282-
1996	11,370	40,390	355	85	1	40,305-	354-
1997	18,358	68,723	374	66	0	68,657-	374-
1998	10,761	61,247	569	425	4	60,822-	565-
1999	12,670	53,696	424	622	5	53,074-	419-
2000	1,579	56,778			0	56,778-	
2001	4,341	59,600			0	59,600-	
2002	18,485	40,698	220		0	40,698-	220-
2003	5,787	119,742			0	119,742-	
2004	10,654	107,733			0	107,733-	
2005	35,546		0		0		0
2006	33,476	116,688	349		0	116,688-	349-
2007	3,064	18,700	610		0	18,700-	610-
2008	395,959	102,253	26		0	102,253-	26-
2009	36,854	111,016	301		0	111,016-	301-
2010	62,569	178,083	285	716	1	177,367-	283-
2011	58,562	171,919	294		0	171,919-	294-
2012	58,573	2	0		0		0
2013	68,893	6,022	9		0	6,022-	9-
2014	87,365	20,320	23		0	20,320-	23-
2015	143,597	27,815	19		0	27,815-	19-
TOTAL	1,277,190	2,134,000	167	13,463	1	2,120,537-	166-
THREE-YEAI	R MOVING AVERAGI	ES					
80-82	8,917	35,990	404	429	5	35,561-	399-
81-83	11,149	42,277	379	537	5	41,740-	374-

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#### ACCOUNT 333 SERVICES

			COST OF		GROSS	GROSS		
	REGULAI	ર	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMEN	NTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE - YEAR	R MOVING	AVERAGES						
82-84	12,	635	41,898	332	649	5	41,249-	326-
83-85	14,	635	40,522	277	785	5	39,737-	272-
84-86	12,	501	40,126	321	709	б	39,417-	315-
85-87	12,	886	50,708	394	595	5	50,113-	389-
86-88	13,	154	62,186	473	493	4	61,693-	469-
87-89	13,	464	65,032	483	1,691	13	63,341-	470-
88-90	13,	509	61,686	457	1,603	12	60,083-	445-
89-91	11,	755	53,973	459	1,471	13	52,501-	447-
90-92	12,	477	49,385	396	362	3	49,023-	393-
91-93	14,	317	49,800	348	383	3	49,417-	345-
92~94	13,	897	53,618	386	385	3	53,233-	383-
93-95	13,	747	49,843	363	404	3	49,439-	360-
94-96	10,	788	43,755	406	372	3	43,383-	402-
95-97	13,	793	47,607	345	337	2	47,270-	343-
96-98	13,	496	56,787	421	192	1	56,595~	419-
97-99	13,	930	61,222	440	371	3	60,851-	437-
98-00	8,	337	57,240	687	349	4	56,891-	682-
99-01	6,	197	56,691	915	207	3	56,484-	912-
00-02	8,	135	52,359	644		0	52,359-	644-
01-03	9,	538	73,347	769		0	73,347-	769-
02-04	11,	642	89,391	768		0	89,391-	768-
03-05	17,	329	75,825	438		0	75,825-	438-
04-06	26,	559	74,807	282		0	74,807-	282-
05-07	24,	029	45,129	188		0	45,129-	188-
06-08	144,	166	79,214	55		0	79,214-	55-
07-09	145,	292	77,323	53		0	77,323-	53-
08-10	165,	127	130,451	79	238	0	130,212-	79-
09-11	52,	662	153,673	292	238	0	153,434-	291-
10-12	59,	901	116,667	195	238	0	116,429-	194-
11-13	62,	009	59,314	96		0	59,314-	96-
12-14	71,	610	8,781	12		0	8,781-	12-
13-15	99,	952	18,052	18		0	18,052-	18-
FIVE-YEAR	AVERAGE							
11.10	0.0	200	45 015	EA		ņ	AE 015	51.
エエッキン	రవ,	220	40,410	<b>D</b> 4		U	40,410-	- <del></del>

#### ACCOUNT 334.10 METERS

#### SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET	
***** ~ ~	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	31,808	975	3	9,533	30	8,558	27
1981	24,709	426	2	11,163	45	10,737	43
1982	38,371	337	1	7,175	19	6,838	18
1983	28,697	182	1	6,818	24	6,636	23
1984	24,844	207	1	4,218	17	4,011	16
1985	44,219	805	2	7,299	17	6,494	15
1986	68,982	1,740	3	24,277	35	22,537	33
1987	63,039	484	1	21,826	35	21,342	34
1988	68,730	559	1	41,288	60	40,729	59
1989	65,534	922	1	28,904	44	27,982	43
1990	62,757	390	1	10,266	16	9,876	16
1991	57,237	1,975	3	6,364	11	4,389	8
1992	36,748	1,054	3	8,299	23	7,245	20
1993	63,847	231	0	11,338	18	11,107	17
1994	38,982	261	1	10,827	28	10,566	27
1995	59,027	96	0	10,555	18	10,459	18
1996	230,235	9,525	4	19,461	8	9,936	4
1997	248,687	12,934	5	20,905	8	7,971	3
1998	225,264	9,383	4	4,904	2	4,479-	2 -
1999	71,461	3,936	6	868	1	3,068-	4 -
2000	59,128	998	2	6,861	12	5,863	10
2001	221,073	1,127	1	6,731	з	5,604	3
2002	109,573	283	0	5,393	5	5,110	5
2003	82,195	774-	1-	45	0	819	1
2004	183,141	202	0	55	0	147-	0
2005	258,097		0	4,714	2	4,714	2
2006	303,334	2,071	1	35,627	12	33,556	11
2007	119,810	45	0	2,493	2	2,448	2
2008	193,814	681-	0	12,732	7	13,413	7
2009	501,742	2,548	1	18,561	4	16,013	3
2010	112,410	99,467	88	28,763	26	70,704-	63-
2011	123,735	22,347	18	29,154	24	6,807	6
2012	151,018		0	25,632	17	25,632	17
2013	235,864		0	22,006	9	22,006	9
2014	514,147		0	13,289	3	13,289	3
2015	731,749		0	32,789	4	32,789	4
TOTAL	5,454,011	174,055	3	511,131	9	337,076	6
THREE-YEA	AR MOVING AVERAGES	5					
80-82	31,629	579	2	9,290	29	8,711	28
81-83	30,592	315	1	8,385	27	8,070	26
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#### ACCOUNT 334.10 METERS

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	$\mathbf{PCT}$	AMOUNT	$\mathbf{PCT}$	AMOUNT	$\mathbf{PCT}$
THREE-YE	EAR MOVING AVERAG	ES					
82-84	30,637	242	1	6,070	20	5,828	19
83-85	32,587	398	1	6,112	19	5,714	18
84-86	46,015	917	2	11,931	26	11,014	24
85-87	58,747	1,010	2	17,801	30	16,791	29
86-88	66,917	928	1	29,130	44	28,203	42
87-89	65,768	655	1.	30,673	47	30,018	46
88-90	65,674	624	1	26,819	41	26,196	40
89-91	61,843	1,096	2	15,178	25	14,082	23
90-92	52,247	1,140	2	8,310	16	7,170	14
91-93	52,611	1,087	2	8,667	16	7,580	14
92-94	46,526	515	1	10,155	22	9,639	21
93-95	53,952	196	0	10,907	20	10,711	20
94-96	109,415	3,294	З	13,615	12	10,320	9
95-97	179,316	7,518	4	16,974	9	9,455	5
96~98	234,729	10,614	5	15,090	6	4,476	2
97-99	181,804	8,751	5	8,892	5	141	0
98-00	118,618	4,772	4	4,211	4	561-	0
99-01	117,221	2,020	2	4,820	4	2,800	2
00-02	129,925	803	1	6,328	5	5,526	4
01-03	137,614	212	0	4,056	з	3,844	3
02-04	124,970	96-	0	1,831	1	1,927	2
03-05	174,478	191-	0	1,605	1	1,796	1
04-06	248,190	758	0	13,465	5	12,708	5
05-07	227,080	705	0	14,278	6	13,573	6
06-08	205,653	478	0	16,950	8	16,472	8
07-09	271,789	637	0	11,262	4	10,624	4
08-10	269,322	33,778	13	20,018	7	13,760-	5-
09-11	245,963	41,454	17	25,492	10	15,962-	6-
10-12	129,055	40,605	31	27,850	22	12,755-	10-
11~13	170,206	7,449	4	25,597	15	18,148	11
12-14	300,343		0	20,309	7	20,309	7
13-15	493,920		0	22,694	5	22,694	5
FIVE-YEA	R AVERAGE						
11-15	351,303	4,469	1	24,574	7	20,104	6

#### ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

	REGULAR		COST OF REMOVAL		GROSS SALVAGE	1	NET SALVAGE	
YEAR	RETIREMEN	TS A	MOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	4	12	884	215	14	3	870-	211-
1981	e	513	1,217	199	37	6	1,180-	192-
1982		71	416	586		0	416-	586-
1983	З	21	265	83	103	32	162-	50-
1984	4	95	1,810	366		0	1,810-	366-
1985	1,6	97	572	34	19	1	553-	33-
1986	1	.89	865	458	62	33	803-	425-
1987		58	433	747	71	122	362-	624-
1988	1,7	72	1,232	70	229	13	1,003-	57-
1989	1,3	05	496	38	48	4	448-	34-
1990	8	94	720	81		0	720-	81-
1991	6,6	22	9,603	145	4,867	73	4,736-	72-
1992	6	34	71	11	361	57	290	46
1993	3	97	113	28	42	11	71-	18-
1994		49		0		0		0
1995	1,0	58	173	16	221	21	49	5
1996	5	58	69	12	82	15	13	2
1997	281,9	07	12	0	347	0	335	0
1998	44,5	64		Ø		0		0
1999	9	12	778	85		0	778-	85-
2000	14,6	29	501	3		0	501-	3
2001	11,6	24	1,080	9		0	1,080-	9-
2002	56,9	70	602	1		0	602-	1-
2003	31,2	91	1,534	5		0	1,534-	5 -
2004	79,4	30	1,369	2		0	1,369-	2 -
2005	58,6	97		0		0		0
2006	72,6	68	981	1		0	981-	1-
2007	23,0	09	514	2		0	514-	2 -
2008	46,0	33	3,257	7	3	0	3,254-	7 -
2009	170,9	50	4,395	3	3,376	2	1,019-	1-
2010	30,7	86	9,544	31		0	9,544-	31-
2011	31,5	70	3,380	11		0	3,380-	11-
2012	71,8	27		0		0		0
2013	340,2	87		0		0		0
2014	274,7	69	170	0		0	170-	0
2015	379,4	25		0	9,231	2	9,231	2
TOTAL	2,038,4	90	47,056	2	19,113	1	27,942-	1-
THREE-YEAR	MOVING A	VERAGES						
80-82	3	65	839	230	17	5	822-	225-
81-83	3	35	633	189	47	14	586-	175-



#### ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

#### SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET		
10000	REGULAR	REMOVAL	DOB	SALVAGE	5.0 <b>0</b>	SALVAGE	- <b>- - -</b>	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	
THREE-YE	AR MOVING AVERAGES							
82-84	296	830	281	34	12	796-	269-	
83-85	838	882	105	41	5	842-	100-	
84-86	794	1,082	136	27	З	1,055-	133-	
85-87	648	623	96	51	8	573-	88-	
86-88	673	843	125	121	18	723-	107-	
87-89	1,045	720	69	116	11	604-	58-	
88-90	1,324	816	62	92	7	724-	55-	
89-91	2,940	3,606	123	1,638	56	1,968-	67-	
90-92	2,717	3,465	128	1,743	64	1,722-	63-	
91-93	2,551	3,262	128	1,757	69	1,506-	59-	
92~94	360	61	17	134	37	73	20	
93-95	501	95	19	88	18	7 -	1-	
94~96	555	81	15	101	18	21	4	
95-97	94,508	84	0	217	0	132	0	
96-98	109,010	27	0	143	0	116	0	
97-99	109,128	263	0	116	0	148-	0	
98-00	20,035	426	2		0	426-	2 -	
99-01	9,055	786	9		0	786-	9-	
00-02	27,741	728	З		0	728-	3 -	
01-03	33,295	1,072	3		0	1,072-	3 -	
02-04	55,897	1,168	2		0	1,168-	2 -	
03-05	56,472	968	2		0	968-	2 -	
04-06	70,265	783	1		0	783-	1-	
05-07	51,458	498	1		0	498-	1-	
06-08	47,237	1,584	3	1	0	1,583-	3 -	
07-09	79,997	2,722	3	1,126	1	1,596-	2 -	
08-10	82,589	5,732	7	1,126	1	4,606-	6 -	
09-11	77,768	5,773	7	1,125	1	4,648-	6-	
10-12	44,727	4,308	10		0	4,308-	10-	
11-13	147,894	1,127	1		0	1,127-	1-	
12-14	228,961	57	0		0	57-	0	
13-15	331,493	57	0	3,077	1	3,020	1	
FIVE-YEAF	RAVERAGE							
11-15	219,575	710	0	1,846	1	1,136	1	
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#### ACCOUNT 335 FIRE HYDRANTS

#### SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	5,514	2,798	51	5,567	101	2,769	50
1981	7,849	4,059	52	4,521	58	462	6
1982	4,922	7,267	148	8,509	173	1,242	25
1983	8,212	7,964	97	16,160	197	8,196	100
1984	5,209	5,354	103	4,176	80	1,178-	23-
1985	7,946	9,366	118	7,961	100	1,405-	18-
1986	18,078	16,140	89	12,357	68	3,783-	21-
1987	30,021	19,790	66	12,368	41	7,422-	25-
1988	14,264	11,828	83	3,287	23	8,540-	60-
1989	12,310	8,853	72	9,412	76	560	5
1990	13,080	10,765	82	11,121	85	356	3
1991	10,076	7,214	72	6,218	62	996-	10-
1992	33,304	12,102	36	5,479	16	6,623-	20-
1993	17,580	10,099	57	9,186	52	913-	5 -
1994	13,340	5,999	45	8,026	60	2,027	15
1995	9,554	6,427	67	4,900	51	1,527-	16-
1996	7,644	10,190	133	5,357	70	4,833-	63-
1997	18,602	11,499	62	15,239	82	3,740	20
1998	13,017	546	4	3,594	28	3,049	23
1999	7,598	7,182	95	15,952	210	8,770	115
2000	11,513	9,724	84	5,500	48	4,224~	37-
2001	10,374	4,014	39	1,374	13	2,640-	25-
2002	22,766	6,462	28	3,478	15	2,984-	13-
2003	14,866	5,649	38	1,901	13	3,748-	25-
2004	20,438	3,751	18	1,610	8	2,141-	10-
2005	71,110		0	4,367	6	4,367	6
2006	66,512	23,488	35	3,827	6	19,661-	30-
2007	22,501	4,150	18	9,581	43	5,431	24
2008	70,749	58,701	83		0	58,701-	83-
2009	40,040	39,214	98	3,482	9	35,732-	89-
2010	41,765	79,264	190	9,925	24	69,339-	166-
2011	41,971	13,163	31		0	13,163-	31-
2012	34,426		0	10,606	31	10,606	31
2013	28,470	4,503	16	10,272	36	5,768	20
2014	66,602	2,016	З	3,972	6	1,956	3
2015	76,658		0		0		0
TOTAL	898,880	429,541	48	239,285	27	190,256-	21-
THREE-YEAR	MOVING AVERAGES						
80-82	6,095	4,708	77	6,199	102	1,491	24
81-83	6,994	6,430	92	9,730	139	3,300	47
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🖄 Gannett Fleming

Aqua OH December 31, 2015

#### ACCOUNT 335 FIRE HYDRANTS

			COSTOF		GROSS	GROSS		
	REGULAR		REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMEN	rs	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YEA	R MOVING A	VERAGES						
82-84	6,1	14	6,862	112	9,615	157	2,753	45
83-85	7,1	22	7,561	106	9,432	132	1,871	26
84-86	10,4	11	10,287	99	8,165	78	2,122-	20-
85-87	18,6	81	15,099	81	10,895	58	4,203-	23-
86-88	20,7	87	15,919	77	9,338	45	6,582-	32-
87-89	18,8	65	13,490	72	8,356	44	5,134-	27-
88-90	13,2	18	10,482	79	7,940	60	2,541-	19-
89-91	11,8	22	8,944	76	8,917	75	27-	0
90-92	18,8	20	10,027	53	7,606	40	2,421-	13-
91-93	20,3	20	9,805	48	6,961	34	2,844-	14-
92-94	21,4	08	9,400	44	7,564	35	1,837-	9-
93-95	13,4	91	7,508	56	7,371	55	138-	1-
94-96	10,1	79	7,539	74	6,094	60	1,444-	14-
95-97	11,9	33	9,372	79	8,499	71	873-	7-
96-98	13,0	88	7,411	57	8,064	62	652	5
97-99	13,0	72	6,409	49	11,595	89	5,186	40
98-00	10,7	09	5,817	54	8,349	78	2,532	24
99-01	9,8	28	6,973	71	7,609	77	635	6
00-02	14,8	84	6,733	45	3,451	23	3,283-	22-
01-03	16,0	02	5,375	34	2,251	14	3,124-	20-
02-04	19,3	57	5,287	27	2,329	12	2,958-	15-
03-05	35,4	71	3,133	9	2,626	7	508-	1-
04-06	52,6	87	9,080	17	3,268	6	5,812-	11-
05-07	53,3	74	9,213	17	5,925	11	3,288-	6 ~
06-08	53,2	54	28,780	54	4,469	8	24,311-	46-
07-09	44,4	30	34,022	77	4,354	10	29,667-	67-
08-10	50,8	52	59,060	116	4,469	9	54,591-	107-
09-11	41,2	59	43,880	106	4,469	11	39,411-	96-
10-12	39,3	87	30,809	78	6,844	17	23,965-	61-
11-13	34,9	56	[°] 5,889	17	6,959	20	1,071	з
12-14	43,1	66	2,173	5	8,283	19	6,110	14
13-15	57,2	43	2,173	4	4,748	8	2,575	4
FIVE-YEAR	AVERAGE							
11-15	49.6	25	3,936	8	4.970	10	1.033	2
•	/ -	-	-,		-,			-

#### ACCOUNT 341.10 TRANSPORTATION EQUIPMENT

		COST OF		GROSS		NET	
VENE	REGULAR	REMOVAL	-	SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	32,340	27	0	3,786	12	3,759	12
1981							
1982	40,075	70	0	4,181	10	4,111	10
1983	35,293	25	0	8,208	23	8,183	23
1984	75,178		0	12,950	17	12,950	17
1985	52,396	330	1	9,302	18	8,972	17
1986	21,280	150	l	10,961	52	10,811	51
1987	23,603		0	4,394	19	4,394	19
1988	12,350		0	2,679	22	2,679	22
1989	2,223		0	2,661	120	2,661	120
1990				847		847	
1991							
1992							
1993	22,983		0	41,668	181	41,668	181
1994	60,625		0	74,944	124	74,944	124
1995	60,973		0	61,135	100	61,135	100
1996	33,122		0	47,407	143	47,407	143
1997	74,793	43	0	37,182	50	37,139	50
1998	194,351	93	0	91,129	47	91,036	47
1999	119,258		0	45,496	38	45,496	38
2000	182,025		O	62,050	34	62,050	34
2001	218,918		0	32,443	15	32,443	15
2002	169,029		0	27,504	16	27,504	16
2003	200,383		0	18,272	9	18.272	9
2004	122,500		0	41,598	34	41.598	34
2005	50,444	2	0	10,518	21	10,518	21
2006	389,249		0	26,739	7	26,739	7
2007	83,878		0	30,264	36	30.264	36
2008	291,234		0	4.034	1	4.034	1
2009	135,691		0	76.139	56	76,139	56
2010	215,772		0	27.757	13	27.757	13
2011	135,232	8,675	6	25,662	19	16,987	13
2012	····· ,	-,	-	,			
2013	467.971		D	9,216	2	9 216	,
2014	84,223		Ô	63 341	75	63 341	75
2015	15 610		Õ	00,011	, <u>)</u>	00,041	<i>د</i> ،
	20,010		U		Ų		0
TOTAL	3,623,003	9,412	0	914,468	25	905,055	25
THREE-YEA	AR MOVING AVERAGES						
80-82	24,138	32	0	2,656	11	2,623	11
81-83	25,123	32	0	4,130	16	4,098	16


# ACCOUNT 341.10 TRANSPORTATION EQUIPMENT

## SUMMARY OF BOOK SALVAGE

		COSTOF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE - YI	EAR MOVING AVERAG	ÊS					
82-84	50,182	32	0	8,446	17	8,415	17
83-85	54,289	118	0	10,153	19	10,035	18
84-86	49,618	160	0	11,071	22	10,911	22
85-87	32,426	160	0	8,219	25	8,059	25
86~88	19,078	50	0	6,011	32	5,961	31
87-89	12,725		0	3,245	25	3,245	25
88-90	4,858		0	2,062	42	2,062	42
89-91	741		0	1,169	158	1,169	158
90-92				282		282	
91~93	7,661		0	13,889	181	13,889	181
92-94	27,869		0	38,871	139	38,871	139
93-95	48,194		0	59,249	123	59,249	123
94-96	51,573		0	61,162	119	61,162	119
95-97	56,296	14	0	48,575	86	48,561	86
96-98	100,756	45	0	58,573	58	58,527	58
97-99	129,467	45	0	57,936	45	57,890	45
98-00	165,211	31	0	66,225	40	66,194	40
99-01	173,400		0	46,663	27	46,663	27
00-02	189,991		0	40,666	21	40,666	21
01-03	196,110		0	26,073	13	26,073	13
02-04	163,971		0	29,125	18	29,125	18
03-05	124,443		0	23,463	19	23,463	19
04-06	187,398		0	26,285	14	26,285	14
05-07	174,524		0	22,507	13	22,507	13
06-08	254,787		0	20,346	8	20,346	8
07-09	170,268		0	36,812	22	36,812	22
08-10	214,232		0	35,977	17	35,977	17
09-11	162,232	2,892	2	43,186	27	40,294	25
10-12	117,001	2,892	2	17,806	15	14,915	13
11-13	201,068	2,892	1	11,626	6	8,734	4
12-14	184,065		0	24,186	13	24,186	13
13-15	189,268		0	24,186	13	24,186	13
FIVE-YEA	R AVERAGE						
11-15	140,607	1,735	1	19.644	14	17.909	13
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## ACCOUNT 345 POWER OPERATED EQUIPMENT

## SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1986	495		0	2,800	566	2,800	566
1987							
1988	39,561		0	15,130	38	15,130	38
1989							
1990	4,258		0	1,400	33	1,400	33
1991	50,927		0	23,160	45	23,160	45
1992	23,898		0		0		0
1993	48,227		0	15,209	32	15,209	32
1994	8,414		0	6,078	72	6,078	72
1995	7,713		0		0		0
1996	34,961		0	9,900	28	9,900	28
1997	18,104		0	13,967	77	13,967	77
1998	105,356	23	0	38,150	36	38,127	36
1999	18,108		0	19,500	108	19,500	108
2000	89,446		0	6,590	7	6,590	7
2001	51,116		0	9,000	18	9,000	18
2002	154,052		0	24,443	16	24,443	16
2003	35,978		0	4,551	13	4,551	13
2004	61,785		0	17,600	28	17,600	28
2005	16,831		0	2,325	14	2,325	14
2006	71,107	1,228	2	21,470	30	20,242	28
2007	46,513		0	14,375	31	14,375	31
2008	90,388		0	12,500	14	12,500	14
2009	19,251		0		0		0
2010	153,940		0	2,732	2	2,732	2
2011							
2012	203,738		0	47,276	23	47,276	23
2013	201,448		0	114,042	57	114,042	57
2014	27,514		0	402	1	402	l
2015	67,501		0	20,445	30	20,445	30
TOTAL	1,650,629	1,251	0	443,046	27	441,795	27
THREE-YE	EAR MOVING AVERAGE	S					
86-88	13,352		0	5,977	45	5,977	45
87-89	13,187		0	5,043	38	5,043	38
88-90	14,606		0	5,510	38	5,510	38
89-91	18,395		0	8,187	45	8,187	45
90-92	26,361		0	8,187	31	8,187	31
91-93	41,017		0	12,790	31	12,790	31
92-94	26,846		0	7,096	26	7,096	26
93-95	21,451		0	7,096	33	7,096	33

## ACCOUNT 345 POWER OPERATED EQUIPMENT

## SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	$\mathbf{PCT}$	AMOUNT	PCT
THREE - YEA	AR MOVING AVERAGES						
94-96	17,029		0	5,326	31	5,326	31
95-97	20,260		0	7,956	39	7,956	39
96-98	52,807	8	0	20,672	39	20,665	39
97-99	47,189	8	0	23,872	51	23,865	51
98-00	70,970	8	0	21,413	30	21,406	30
99-01	52,890		0	11,697	22	11,697	22
00-02	98,204		0	13,344	14	13,344	14
01-03	80,382		0	12,665	16	12,665	16
02-04	83,938		0	15,531	19	15,531	19
03-05	38,198		0	8,159	21	8,159	21
04-06	49,908	409	1	13,798	28	13,389	27
05-07	44,817	409	1	12,723	28	12,314	27
06-08	69,336	409	l	16,115	23	15,706	23
07-09	52,051		0	8,958	17	8,958	17
08-10	87,860		0	5,077	6	5,077	6
09-11	57,730		0	911	2	911	2
10-12	119,226		0	16,669	14	16,669	14
11-13	135,062		0	53,773	40	53,773	40
12-14	144,233		0	53,907	37	53,907	37
13-15	98,821		0	44,963	45	44,963	45
FIVE-YEAF	R AVERAGE						
11-15	100,040		0	36,433	36	36,433	36

# PART IX. DETAILED DEPRECIATION CALCULATIONS

# ACCOUNT 304.10 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE IOWA	40-S0.5					
NET SALV	AGE PERCENT	~ 5					
1918	5,867.08	40.00				1.0000	6,160
1926	4,632.87	40.00				1.0000	4,865
1952	33,618.93	40.00	2.50	882.50	5.63	0.8593	30,331
1962	28,072.00	40.00	2.50	736.89	9.11	0.7723	22,763
1963	26,794.00	40.00	2.50	703.34	9.48	0.7630	21,466
1964	16,317.00	40.00	2.50	428.32	9.84	0.7540	12,918
1965	1,678.96	40.00	2.50	44.07	10.21	0.7448	1,313
1966	36.00	40.00	2.50	0.94	10.59	0.7353	28
1970	3,648.00	40.00	2.50	95.76	12.13	0.6968	2,669
1971	313.00	40.00	2.50	8,22	12.52	0.6870	226
1975	5,718.59	40.00	2.50	150.11	14.16	0.6460	3,879
1977	31,360.82	40.00	2.50	823.22	15.02	0.6245	20,564
1979	11,663.00	40.00	2.50	306.15	15.90	0.6025	7,378
1980	7,265.00	40.00	2.50	190.71	16.35	0.5913	4,510
1981	13,968.00	40.00	2.50	366.66	16.80	0.5800	8,507
1982	16,600.74	40.00	2.50	435.77	17.27	0.5683	9,905
1983	2,893.00	40.00	2.50	75.94	17.74	0.5565	1,690
1984	2,625.00	40.00	2.50	68.91	18.22	0.5445	1,501
1985	37,257.96	40.00	2.50	978.02	18.71	0.5323	20,822
1986	6,642.80	40.00	2.50	174.37	19.21	0.5198	3,625
1987	5,442.89	40.00	2.50	142.88	19.72	0.5070	2,898
1988	17,301.43	40.00	2.50	454.16	20.24	0.4940	8,974
1989	50,517.92	40.00	2.50	1,326,10	20.77	0.4808	25.501
1990	28,468.40	40.00	2.50	747.30	21.30	0.4675	13,974
1991	3,017.20	40.00	2.50	79.20	21.85	0.4538	1,438
1992	942.15	40.00	2.50	24.73	22.41	0.4398	435
1993	20,699.60	40.00	2.50	543.36	22.98	0.4255	9,248
1994	13,892.28	40.00	2.50	364.67	23.57	0.4108	5,992
1995	4,885.54	40.00	2.50	128.25	24.16	0.3960	2,031
1996	14,633.48	40.00	2.50	384.13	24.77	0.3808	5.850
1997	308,397.47	40.00	2.50	8,095.43	25.39	0.3653	118,274
1998	29,284.88	40.00	2.50	768.73	26.03	0.3493	10,739
1999	490.11	40.00	2.50	12.87	26.68	0.3330	171
2000	4,432.04	40.00	2.50	116.34	27.34	0.3165	1.473
2001	23,185.96	40.00	2.50	608.63	28.03	0.2993	7.285
2002	1,669.61	40.00	2.50	43.83	28.72	0.2820	494
2003	19,587.46	40.00	2.50	514.17	29.44	0.2640	5,430
2004	240,455.41	40.00	2.50	6.311.95	30.17	0.2458	62,047
2005	55,059.91	40.00	2.50	1,445.32	30.91	0.2273	13.138
2006	24,327.63	40.00	2.50	638.60	31.68	0.2080	5,313
2007	136,649.43	40.00	2.50	3,587.05	32.47	0.1883	27 010
2008	92,578.23	40.00	2.50	2,430.18	33,27	0.1683	16 355
2009	914.50	40.00	2.50	24.01	34.10	0.1475	142
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# ACCOUNT 304.10 STRUCTURES AND IMPROVEMENTS - SOURCE OF SUPPLY

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIVO	R CURVE IOWA	40-S0.5					
NET SAL	VAGE PERCENT	- 5					
2010	25,459.67	40.00	2.50	668.32	34.94	0.1265	3,382
2012	1,527.91	40.00	2.50	40.11	36.70	0.0825	132
2013	1,850.47	40.00	2.50	48.57	37.61	0.0598	116
2014	242,899.30	40.00	2.50	6,376.11	38,54	0.0365	9.309
2015	1,319.02	40.00	2.50	34.62	39.51	0.0123	17
	1,626,862.65			42,429.52			542,288

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.61

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## ACCOUNT 304.20 STRUCTURES AND IMPROVEMENTS - PUMPING PLANT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE IOWA	60-R2.5					
NET SALV.	AGE PERCENT	-20					
1879	17,930.25	60.00				1.0000	21.516
1887	29,897.24	60.00				1.0000	35,877
1908	4,295.20	60.00	1.67	86.08	1.01	0.9832	5.067
1914	23,792.23	60.00	1.67	476.80	2.61	0.9565	27,309
1917	7,591.51	60.00	1.67	152.13	3.43	0.9428	8,589
1920	12.32	60.00	1.67	0.25	4.16	0.9307	14
1923	3,978.03	60.00	1.67	79.72	4.83	0.9195	4,389
1925	4,401.34	60.00	1.67	88.20	5.27	0.9122	4,818
1927	1,305.55	60.00	1.67	26.16	5.70	0.9050	1,418
1928	15,521.65	60.00	1.67	311.05	5.93	0.9012	16,785
1932	7,247.04	60.00	1.67	145.23	6.84	0.8860	7,705
1939	15,563.46	60.00	1.67	311.89	8.56	0.8573	16,012
1940	205.35	60.00	1.67	4.12	8.83	0.8528	210
1942	9,733.87	60.00	1.67	195.07	9.39	0.8435	9,853
1946	5,592.00	60.00	1.67	112.06	10.62	0.8230	5,523
1948	53.77	60.00	1.67	1.08	11.30	0.8117	52
1950	13,408.71	60.00	1.67	268.71	12.03	0.7995	12,864
1951	6,197.13	60.00	1.67	124.19	12.42	0.7930	5,897
1952	39,839.64	60.00	1.67	798.39	12.82	0.7863	37,593
1953	13,432.56	60.00	1.67	269.19	13.23	0.7795	12,565
1954	860.92	60.00	1.67	17.25	13.66	0.7723	798
1955	8,362.05	60.00	1.67	167.58	14.11	0.7648	7,675
1956	1,128.02	60.00	1.67	22.61	14.57	0.7572	1,025
1957	122,921.97	60.00	1.67	2,463.36	15.04	0.7493	110,531
1958	24,517.40	60.00	1.67	491.33	15.53	0.7412	21,806
1959	208.65	60.00	1.67	4.18	16.03	0.7328	183
1960	1,093.99	60.00	1.67	21.92	16.55	0.7242	951
1961	1,039.50	60.00	1.67	20.83	17.08	0,7153	892
1962	10,976.11	60.00	1.67	219.96	17.62	0.7063	9,303
1963	6,576.23	60.00	1.67	131.79	18.18	0.6970	5,500
1964	98,156.54	60.00	1.67	1,967.06	18.75	0.6875	80,979
1965	1,377.72	60.00	1.67	27.61	19.34	0.6777	1,120
1966	5,763.72	60.00	1.67	115.50	19.93	0.6678	4,619
1967	4,474.40	60.00	1.67	89.67	20.54	0.6577	3,531
1968	5,531.64	60.00	1.67	110.85	21.16	0.6473	4,297
1969	7,225.89	60.00	1.67	144.81	21.79	0.6368	5,522
1970	5,126.14	60.00	1.67	102.73	22.44	0.6260	3,851
TA.1T	111.22	60.00	1.67	2.23	23.09	0.6152	82
1972	1,886.80	60.00	1.67	37.81	23.76	0.6040	1,368
1973	42,501.92	60.00	1.67	851.74	24.43	0.5928	30,236
1974	23,410.47	60.00	1.67	469.15	25.11	0.5815	16,336
1975	14,052.26	60.00	1.67	281.61	25.81	0.5698	9,609
TA.10	11,493.05±	60.00	1.67	230.32	26.51	0.5582	7,698

## ACCOUNT 304.20 STRUCTURES AND IMPROVEMENTS - PUMPING PLANT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVI	VOR CURVE IOWA	60-R2.5					
NET S	ALVAGE PERCENT	-20					
1977	14,129.19	60.00	1.67	283.15	27.23	0.5462	9,260
1978	974.00	60.00	1.67	19.52	27.95	0.5342	624
1979	1,090.56	60.00	1.67	21.85	28.68	0.5220	683
1980	27,689.71	60.00	1.67	554.90	29.42	0.5097	16,935
1981	1,365.00	60.00	1.67	27.35	30.17	0.4972	814
1982	4,026.55	60.00	1.67	80.69	30.92	0.4847	2,342
1983	7,595.83	60.00	1.67	152.22	31.69	0.4718	4,301
1984	11,737.28	60.00	1.67	235.22	32.46	0.4590	6,465
1985	1,446.29	60.00	1.67	28.98	33.24	0.4460	774
1986	690.19	60.00	1.67	13.83	34.03	0.4328	358
1987	199,065.53	60.00	1.67	3,989.27	34.82	0.4197	100,250
1988	1,116.56	60.00	1.67	22.38	35.63	0.4062	544
1989	899.41	60.00	1.67	18.02	36.44	0.3927	424
1990	75,522.95	60.00	1.67	1,513.48	37.25	0.3792	34,363
1991	155,993.72	60.00	1.67	3,126.11	38.08	0.3653	68,387
1992	11,395.27	60.00	1.67	228.36	38.91	0.3515	4,807
1993	51,630.69	60.00	1.67	1,034.68	39.74	0.3377	20,921
1994	15,862.59	60.00	1,67	317.89	40.59	0.3235	6,158
1995	238,170.71	60.00	1.67	4,772.94	41.44	0.3093	88,408
1996	105,485.38	60.00	1.67	2,113.93	42.30	0.2950	37,342
1997	143,879.37	60.00	1.67	2,883.34	43.16	0.2807	48,459
1998	119,062.01	60.00	1.67	2,386.00	44.03	0.2662	38,029
1999	32,972.89	60.00	1.67	660.78	44.90	0.2517	9,958
2000	29,513.25	60.00	1.67	591.45	45.78	0.2370	8,394
2001	131,388.07	60.00	1.67	2,633.02	46.67	0.2222	35,029
2002	93,003.09	60.00	1.67	1,863.78	47.56	0.2073	23,139
2003	136,045.49	60.00	1.67	2,726.35	48.45	0.1925	31,427
2004	205,963.15	60.00	1.67	4,127.50	49.35	0.1775	43,870
2005	160,041.09	60.00	1.67	3,207.22	50.26	0.1623	31,175
2006	134,745.41	60.00	1.67	2,700.30	51.17	0.1472	23,797
2007	111,469.65	60.00	1.67	2,233.85	52.08	0.1320	17,657
2008	50,527.71	60.00	1.67	1,012.58	53.00	0.1167	7,074
2009	69,698.25	60.00	1.67	1,396.75	53.92	0.1013	8,475
2010	30,625.36	60.00	1.67	613.73	54.85	0.0858	3,154
2011	77,894.50	60.00	1.67	1,561.01	55.77	0.0705	6,590
2012	5,865.14	60.00	1.67	117.54	56.71	0.0548	386
2013	127,134.24	60.00	1.67	2,547.77	57.64	0.0393	6,000
2014	41,796.56	60.00	1.67	837.60	58.58	0.0237	1,187
2015	145,509.26	60.00	1.67	2,916.01	59.53	0.0078	1,367
	3,391,817.36	*		67,013.57			1,311,295

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.98

# ACCOUNT 304.30 STRUCTURES AND IMPROVEMENTS - WATER TREATMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE IOWA	60-R2.5					
NET SALV	AGE PERCENT	-20	>				
1894	3,995.11	60.00				1.0000	4,794
1911	7,413.10	60.00	1.67	148.56	1.80	0.9700	8,629
1924	57,159.70	60.00	1.67	1,145.48	5.05	0.9158	62,818
1925	2,515.18	60.00	1.67	50,40	5.27	0.9122	2,753
1928	8,675.66	60.00	1.67	173.86	5.93	0.9012	9,382
1931	331.83	60.00	1.67	6.65	6.61	0.8898	354
1932	15,926.49	60.00	1.67	319.17	6.84	0.8860	16,933
1938	77.39	60.00	1.67	1.55	8.30	0.8617	80
1939	2,130.91	60.00	1.67	42.70	8.56	0.8573	2,192
1941	277.51	60.00	1.67	5.56	9.11	0.8482	282
1946	74.90	60.00	1.67	1,50	10.62	0.8230	74
1947	2,601.46	60.00	1.67	52.13	10.95	0.8175	2,552
1948	437.52	60.00	1.67	8.77	11.30	0.8117	426
1953	18,855.07	60.00	1.67	377.86	13.23	0.7795	17,637
1954	207,716.60	60.00	1.67	4,162.64	13.66	0.7723	192,511
1955	1,713.20	60.00	1.67	34.33	14.11	0.7648	1,572
1957	253,795.74	60.00	1.67	5,086.07	15.04	0.7493	228,212
1958	321,274.74	60.00	1.67	6,438.35	15.53	0.7412	285,743
1960	98.67	60.00	1.67	1.98	16.55	0.7242	86
1962	298,549.79	60.00	1.67	5,982.94	17,62	0.7063	253,050
1963	42,189.24	60.00	1.67	845.47	18.18	0.6970	35,287
1964	117.94	60.00	1.67	2.36	18.75	0.6875	97
1965	179,903.50	60.00	1.67	3,605.27	19.34	0.6777	146.298
1966	508.49	60.00	1.67	10.19	19.93	0.6678	408
1967	3,615.97	60.00	1.67	72.46	20.54	0.6577	2,854
1968	86,803.73	60.00	1.67	1,739.55	21.16	0.6473	67,429
1969	9,856.73	60.00	1,67	197.53	21.79	0.6368	7.532
1970	2,687.02	60.00	1.67	53.85	22.44	0.6260	2,018
1971	942.29	60.00	1.67	18.88	23.09	0.6152	596
1972	98,207.19	60.00	1.67	1,968.07	23.76	0.6040	71.181
1973	45,018.85	60.00	1.67	902.18	24.43	0.5928	32.026
1974	23,806.34	60.00	1.67	477.08	25.11	0.5815	16,612
1975	41,372.70	60.00	1.67	829.11	25 81	0 5698	28 290
1976	61,143.24	60.00	1.67	1,225,31	26 51	0 5582	40 954
1977	23,486.27	60.00	1.67	470.66	27 23	0.5462	15 292
1978	11.775.69	60.00	1.67	235 98	27 95	0.5342	7 548
1979	2,133.31	60.00	1.67	42 75	28 68	0.5042	1 336
1980	7,338,17	60.00	1.67	147 06	29.00	0 5097	4 488
1981	40.330.31	60.00	1.67	808 22	30.17	0.2027	74 NE1
1982	91.047.87	60.00	1.67	1.824 60	30 92	0 4847	27,001 57 05/
1983	113,045.71	60.00	1.67	2,265 44	31 69	0.4718	52,554
1984	866,890,58	60.00	1.67	17 370 40	32 46	0.4590	477 483
1985	282,882 09	60.00	1.67	5.668 96	22.20	0 4460	151 200
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# ACCOUNT 304.30 STRUCTURES AND IMPROVEMENTS - WATER TREATMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAF	R COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURV	IVOR CURVE IOWA	60-R2.5					
NET :	SALVAGE PERCENT	-20					
1000	155 006 00	CO 00	1 677	3 364 56			
1007	100 360 70	60.00	1.67	3,124.76	34.03	0.4328	80,987
1000	120,389.70	60.00	1.6/	2,412.21	34.82	0.4197	60,619
1000		60.00	1.67	1,339.56	35.63	0.4062	32,580
1000	13,435.96	60.00	1.67	269.26	36.44	0.3927	6,331
1001	1/5,1/6.15	60.00	1.67	3,510.53	37.25	0.3792	79,706
1000	43,305.35	60.00	1.67	867.84	38.08	0.3653	18,985
1992	18,538.54	60.00	1.67	371.51	38.91	0.3515	7,820
T 3 3 3	148,070.65	60.00	1.67	2,967.34	39.74	0.3377	59,999
1994	200,359.33	60.00	1.67	4,015.20	40.59	0.3235	77,779
1992	343,371.67	60.00	1.67	6,881.17	41.44	0.3093	127,458
1996	1,217,722.27	60.00	1.67	24,403.15	42.30	0.2950	431,074
1997	219,130.55	60.00	1.67	4,391.38	43.16	0.2807	73,804
1998	928,383.38	60.00	1.67	18,604.80	44.03	0.2662	296,529
1999	248,831.64	60.00	1.67	4,986.59	44.90	0.2517	75,148
2000	108,196.96	60.00	1.67	2,168.27	45.78	0.2370	30,771
2001	574,864.37	60.00	1.67	11,520.28	46.67	0.2222	153,261
2002	11,690.15	60.00	1.67	234.27	47.56	0.2073	2,908
2003	86,481.64	60.00	1.67	1,733.09	48.45	0.1925	19,977
2004	456,937.18	60.00	1.67	9,157.02	49.35	0.1775	97,328
2005	156,906.15	60.00	1.67	3,144.40	50.26	0.1623	30,565
2006	573,193.38	60.00	1.67	11,486.80	51.17	0.1472	101,228
2007	57,716.39	60.00	1.67	1,156.64	52.08	0.1320	9,142
2008	861,989.72	60.00	1.67	17,274.27	53.00	0.1167	120,682
2009	1,656,568.45	60.00	1.67	33,197.63	53.92	0.1013	201,432
2010	1,179,795.37	60.00	1.67	23,643.10	54.85	0.0858	121,514
2011	118,764.45	60.00	1.67	2,380.04	55.77	0.0705	10.047
2012	867,391.41	60.00	1.67	17,382.52	56.71	0.0548	57,071
2013	3,422,499.62	60.00	1.67	68,586.89	57.64	0.0393	161,528
2014	1,118,436.46	60.00	1.67	22,413.47	58.58	0.0237	31,768
2015	312,205.12	60.00	1.67	6,256.59	59.53	0.0078	2 937
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18,701,826.52

374,704.55

4,921,403

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.00

## ACCOUNT 304.40 STRUCTURES AND IMPROVEMENTS - TRANSMISSION AND DISTRIBUTION

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL~- AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVI NET S	IVOR CURVE IOWA SALVAGE PERCENT	50-R3 -5					
1970	14,002.00	50.00	2.00	294.04	12.39	0.7522	11,059
1981	10,427.41	50.00	2.00	218.98	19.49	0.6102	6,681
1983	44,954.37	50.00	2.00	944.04	20.97	0.5806	27,406
1984	466,992.00	50.00	2.00	9,806.83	21.72	0.5656	277,337
1985	11,422.03	50.00	2.00	239.86	22.49	0.5502	6,599
1986	3,541.24	50.00	2.00	74.37	23.26	0.5348	1,989
1987	191.46	50.00	2.00	4.02	24.05	0.5190	104
1989	1,198.05	50.00	2.00	25.16	25.66	0.4868	612
1994	19,692.76	50.00	2.00	413.55	29.86	0.4028	8,329
1995	425.88	50.00	2.00	8.94	30.73	0.3854	172
1998	9,362.40	50,00	2.00	196.61	33.38	0.3324	3,268
1999	5,661.24	50.00	2.00	118.89	34.28	0.3144	1,869
2000	45,732.27	50.00	2.00	960.38	35.19	0.2962	14,223
2001	471,832.64	50.00	2.00	9,908.49	36.11	0.2778	137,629
2002	98,980.07	50.00	2.00	2,078.58	37.03	0.2594	26,959
2003	264,637.25	50.00	2.00	5,557.38	37.96	0.2408	66,911
2004	81,889.63	50.00	2.00	1,719.68	38.89	0.2222	19,106
2005	78,026.10	50.00	2.00	1,638.55	39.84	0.2032	16,648
2006	98,920.95	50.00	2.00	2,077.34	40.78	0.1844	19,153
2007	95,658.40	50.00	2.00	2,008.83	41.74	0.1652	16,593
2008	28,401.09	50.00	2.00	596.42	42.69	0.1462	4,360
2009	104,627.53	50.00	2.00	2,197.18	43.66	0.1268	13,930
2011	28,114.43	50.00	2.00	590.40	45.59	0.0882	2,604
2013	15,774.91	50.00	2.00	331,27	47.54	0,0492	815
2014	26,409.32	50.00	2.00	554.60	48.52	0.0296	821
2015	45,932.85	50.00	2.00	964.59	49.51	0.0098	473
	2,072,808.28			43,528.98			685,650

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.10

## ACCOUNT 304.61 STRUCTURES AND IMPROVEMENTS - GENERAL PLANT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAF	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURV	IVOR CURVE IOWA	55-R2.5					
NET	SALVAGE PERCENT.	-10					
1912	907.29	55.00				1.0000	998
1914	5.36	55.00	1.82	0.11	0.18	0.9967	6
1916	1,917.53	55.00	1.82	38.39	0.69	0.9875	2,083
1918	311.35	55.00	1.82	6.23	1.20	0.9782	335
1925	16,619.58	55.00	1.82	332.72	3.08	0.9440	17,258
1930	204.70	55.00	1,82	4.10	4.27	0,9224	208
1937	1,669,02	55.00	1.82	33.41	5.82	0.8942	1,642
1946	23,465.73	55.00	1.82	469.78	8.02	0.8542	22,048
1949	13,925.13	55.00	1.82	278.78	8.86	0.8389	12,850
1952	101.87	55.00	1.82	2.04	9.80	0.8218	92
1953	739.20	55.00	1.82	14.80	10.14	0.8156	663
1958	35.506.04	55.00	1.82	710.83	12.04	0.7811	30.507
1959	482.77	55.00	1.82	9.67	12 47	0 7733	417
1964	48.374.71	55.00	1 82	968 46	14 85	0 7300	38 845
1965	162 81	55 00	1 82	3 26	15 37	0 7206	129
1974	49,780,00	55 00	1 82	996 60	20 20	0.5236	34 149
1979	446 28	55 00	1 82	20.00 8 93	20.70	0.0200	37,175
1980	3 973 83	55 00	1 82	79 56	24.10	0.5010	270
1984	724 50	55.00	1 82	14 50	24.01	0.3485	2,395
1985	1 316 70	55 00	1 82	26.36	27.75	0.4000	202
1987	180 75	55 00	1 92	20.50	30.05	0,4010	0-00
1990	1 070 16	55 00	1 97	21 42	20.00	0.4000	20
1991	1 568 172 87	55 00	1 80	31 394 82	32,32	0.4100	405 697 796
1997	1 390 00	55 00	1 87	31,331.02 27 P3	34 05	0.3550	502,700
1993	2 261 86	55 00	1 87	45 29	34.00	0.3660	202
1994	10 337 41	55 00	1 97	706 95	35 70	0.3500	3 000
1995	232 254 97	55 00	1 82	A 649 74	35.70	0.3309	95 749
1996	252,254.57	55 00	1 87	520 00	30.54	0.3356	05,745
1997	2 580 00	55 00	1 82	51 65	20.20		2,515
1998	1 738 64	55 00	1 82	34 B1	20.20	0.3042	553
2001	34 102 02	55 00	1 82	682 72	41 71	0.2000	9 064
2001	1 225 99	55 00	1 82	24 54	41.71	0.2410	2,004
2003	88 001 97	55 00	1 87	1 761 80	43,40	0.2095	10 202
2003	3 809 86	55.00	1 02	76 27	44.00	0.1951	10,092
2005	801 895 55	55 00	1 87	16 053 05	45.20	0.1604	141 451
2000	00±,000.00	55.00	1 02	10,000.90	40.10	0.1430	21 247
2007	AE 047 ED	55.00	1 00	2,000.70	47.09	0.1430	21,247
2000	12 047.00	55.00	1 02	211.01 277 A4	40.V1 10.V1	0.12/1	0,409 1 <i>6</i> 00
2019	10,000.01 200 150 66	55.VV 55.00	1.02 1.07	2//.04	40.73	0.1104	U50,1 -10 FF
2010	00,CC1,000	JJ.00	1.02	13,7//.U4	47,63	0.0930	110 000
2012	1,334,411.1V	35.UU 55.UU	1.04	20,/14.91 10 700 04	50.78	0.0/6/	TT7,058
2012	534,6U7.31	55.00	1.82	10,702.84	51.71	0.0598	35,178

## ACCOUNT 304.61 STRUCTURES AND IMPROVEMENTS - GENERAL PLANT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIVO	R CURVE IOWA VAGE PERCENT	55-R2.5 -10					
2013	34,508.41	55.00	1.82	690.86	52.65	0.0427	1,622
2014	83,539.82	55.00	1.82	1,672.47	53.58	0.0258	2,373
2015	49,312.83	55.00	1.82	987.24	54.53	0.0086	464
5	5,904,607.65			118,192.05			1,375,058

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.00

# ACCOUNT 304.63 STRUCTURES AND IMPROVEMENTS - LEASEHOLD IMPROVEMENTS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUEI	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVI	OR CURVE. TOWA	38-82					
NET SZ	LVAGE PERCENT	0					
		Ŭ					
1982	14,220.11	38.00	2.63	373.99	12.81	0.6629	9,426
1983	4,100.75	38.00	2.63	107.85	13.36	0.6484	2,659
1985	3,934.31	38.00	2.63	103.47	14.52	0.6179	2,431
1986	1,780.00	38.00	2.63	46.81	15.12	0.6021	1,072
1987	1,404.53	38.00	2.63	36.94	15,73	0.5861	823
1988	3,534.94	38.00	2.63	92.97	16.36	0.5695	2,013
1989	321,148.54	38.00	2.63	8,446.21	17.00	0.5526	177,476
1990	391,396.22	38.00	2.63	10,293.72	17.65	0.5355	209,604
1991	4,749.15	38.00	2.63	124.90	18.32	0.5179	2,460
1992	9,543.19	38.00	2.63	250.99	19.00	0.5000	4,772
1993	79,824.44	38.00	2.63	2,099.38	19.69	0.4818	38,463
1994	5,777.08	38.00	2.63	151.94	20.40	0.4632	2,676
1995	717.90	38.00	2.63	18.88	21.11	0.4445	319
1996	36,076.48	38.00	2.63	948.81	21.84	0.4253	15,342
1997	43,917.22	38.00	2.63	1,155.02	22.58	0.4058	17,821
1998	5,997.02	38.00	2.63	157.72	23.33	0.3861	2,315
1999	2,485.15	38.00	2.63	65.36	24.10	0.3658	909
2002	22,044.65	38.00	2.63	579.77	26.44	0.3042	6,706
2003	22,044.65	38.00	2.63	579.77	27.25	0.2829	6,236
2004	7,470.16	38.00	2.63	196,47	28.06	0.2616	1,954
2005	59,266.91	38.00	2.63	1,558.72	28.88	0.2400	14,224
2006	38,131.73	38.00	2.63	1,002.86	29.71	0.2182	8,319
2008 🤺	2,238.16	38.00	2.63	58,86	31.40	0.1737	389
2010	7,981.79	38.00	2.63	209.92	33.12	0.1284	1,025
2014	7,529.47	38.00	2.63	198.03	36.65	0.0355	268
	1 097 314 55						

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.63

# ACCOUNT 304.70 STRUCTURES AND IMPROVEMENTS - STORES, SHOP AND GARAGE

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP.	ACCRUED FACTOR (7)	DEPREC AMOUNT
SURVIVO	CURVE IOWA	30-R2.5 -5					(0)
1966	18,150.19	30.00	3.33	634.62	1.65	0.9450	18,010
1967	636.75	30.00	3.33	22.26	1.90	0.9367	626
1969	1,036.25	30.00	3.33	36.23	2.36	0.9213	1,002
1970	3,023.66	30.00	3.33	105.72	2.58	0.9140	2,902
1986	593.98	30.00	3.33	20.77	7.40	0.7533	470
1990	1,054.70	30.00	3.33	36.88	9.52	0.6827	756
1991	5,274.00	30.00	3.33	184.41	10.12	0.6627	3,670
1999	2,447.50	30.00	3.33	85.58	15.65	0.4783	1,229
2000	12,550.44	30.00	3.33	438.83	16.42	0.4527	5,965
2002	943.82	30.00	3.33	33.00	18.01	0.3997	396
2004	5,203.05	30.00	3.33	181.92	19.66	0.3447	1,883
2007	9,080.47	30.00	3.33	317.50	22.23	0.2590	2,469
2009	1,282.10	30.00	3.33	44.83	24.00	0.2000	269
2011	18,845.12	30.00	3.33	658.92	25.81	0.1397	2,764
2015 1	,133,323.55	30.00	3.33	39,626.66	29.53	0.0157	18,647

1,213,445.58

42,428.13

61,058

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.50

## ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUA	AL ACCRUAL		ACCRUE	D DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIN	OR CURVE IOW	A 80-R2					
NET SA	LVAGE PERCENT.	5					
1915	1,036.86	80.00	1.25	13.61	13.86	0.8268	900
1916	23,798.05	80.00	1.25	312.35	14.20	0.8225	20,553
1917	4,144.25	80.00	1.25	54.39	14.55	0.8181	3,560
1918	915.36	80.00	1.25	12.01	14.90	0.8138	782
1919	167.76	80.00	1.25	2.20	15.26	0.8093	143
1925	154.57	80.00	1.25	2.03	17.54	0,7808	127
1926	147.93	80.00	1.25	1.94	17.94	0.7758	120
1927	95.85	80.00	1.25	1.26	18.35	0.7706	78
1929	128,280.76	80.00	1.25	1,683,68	19.19	0.7601	102.384
1931	6,615.39	80.00	1.25	86.83	20.07	0.7491	5.204
1937	3,509.94	80.00	1.25	46.07	22.85	0.7144	2,633
1943	566.36	80.00	1.25	7.43	25.91	0.6761	402
1948	1,139,589.06	80.00	1.25	14,957.11	28.66	0.6418	767.898
1949	591.34	80.00	1.25	7.76	29.23	0.6346	394
1951	35,070.14	80.00	1.25	460.30	30.39	0.6201	22.835
1952	44,376.01	80.00	1.25	582.44	30.99	0.6126	28,545
1953	8,955.89	80.00	1.25	117.55	31.58	0,6053	5,692
1954	5,340.02	80.00	1.25	70.09	32.19	0.5976	3.351
1958	8,647.22	80.00	1.25	113.49	34.68	0.5665	5.144
1959	350.56	80.00	1.25	4.60	35.32	0.5585	206
1960	3,782.41	80.00	1.25	49.64	35.97	0.5504	2,186
1961	3,875.65	80.00	1.25	50.87	36.62	0.5423	2,207
1969	3,331.92	80.00	1.25	43.73	42.07	0.4741	1,659
1977	23,262.26	80.00	1.25	305.32	47.88	0.4015	9,807
1979	19,486.24	80.00	1.25	255.76	49.38	0.3828	7,831
1980	3,423.78	80.00	1,25	44.94	50.15	0.3731	1.341
1981	13,410.07	80.00	1.25	176.01	50.91	0.3636	5,120
1982	7,454.13	80.00	1.25	97.84	51.68	0.3540	2,771
1984	3,140.55	80.00	1.25	41,22	53.24	0.3345	1,103
1986	527.72	80.00	1.25	6,93	54.81	0.3149	174
1991	362.12	80.00	1.25	4.75	58.84	0.2645	101
1992	198,307.97	80.00	1.25	2,602.79	59.65	0.2544	52,968
1993	767.35	80.00	1.25	10.07	60.47	0.2441	197
1995	56,505.40	80.00	1.25	741.63	62.13	0.2234	13.253
1996	100,762.01	80.00	1.25	1,322.50	62.97	0.2129	22,523
2000	515.62	80.00	1.25	6.77	66.35	0.1706	,
2002	28,492.05	80.00	1.25	373.96	68.06	0.1493	4,465
2005	969,352.90	80.00	1.25	12,722.76	70.66	0.1168	118.831
2006	295,343.31	80.00	1.25	3.876.38	71.53	0.1059	32,834
2007	1,019,692.66	80.00	1.25	13,383.47	72.41	0.0949	101.586
2008	69,913.92	80.00	1.25	917.62	73.29	0.0839	6.158
2009	29,963.77	80.00	1.25	393.27	74.17	0.0729	2,293
2010	1,148.39	80.00	1.25	15.07	75.06	0.0618	74

## ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIVO	R CURVE IOWA	80-R2					
NET SAL	VAGE PERCENT	- 5					
2011	19,107.92	80.00	1.25	250.79	75.95	0.0506	1,016
2012	49,988.66	80.00	1.25	656.10	76.85	0.0394	2,067
2014	8,245.62	80.00	1.25	108.22	78.64	0.0170	147
2015	115,981.29	80.00	1.25	1,522.25	79.55	0.0056	684
	4,458,499.01			58,517.80			1,364,439

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.31

## ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVI	VOR CURVE IOWA	70-R2.5					
NET S	ALVAGE PERCENT	-15					
1897	80,537.94	70.00	1.43	1,324.45	3.02	0.9569	88,623
1928	43,161.60	70.00	1.43	709.79	10.46	0.8506	42,219
1952	120,000.00	70.00	1.43	1,973.40	19.97	0.7147	98,630
1956	58.93	70.00	1.43	0.97	22.22	0.6826	46
1957	921,154.60	70.00	1.43	15,148.39	22.81	0.6741	714,135
1959	57,626.68	70.00	1.43	947.67	24.02	0.6569	43,531
1965	105,346.34	70.00	1.43	1,732.42	27.88	0.6017	72,896
1966	39,282.23	70.00	1.43	646.00	28.56	0.5920	26,743
1973	1,756.98	70.00	1.43	28.89	33.52	0.5211	1,053
1975	201,517.84	70.00	1.43	3,313.96	35.01	0.4999	115,840
1977	21,151.89	70.00	1.43	347.84	36.52	0.4783	11,634
1978	5,003.90	70.00	1.43	82.29	37.29	0.4673	2,689
1979	6,665.95	70.00	1.43	109.62	38.06	0.4563	3,498
1980	1,015.99	70.00	1.43	16.71	38.85	0.4450	520
1982	491.28	70.00	1.43	8.08	40.43	0.4224	239
1983	9,150.96	70.00	1.43	150.49	41.23	0.4110	4,325
1985	14,622.79	70.00	1.43	240.47	42.85	0.3879	6,522
1987	4,664.44	70.00	1.43	76.71	44.49	0.3644	1,955
1988	12,827.20	70.00	1.43	210.94	45.32	0.3526	5,201
1990	8,062.76	70.00	1.43	132.59	47.00	0.3286	3,047
1991	1,423.82	70.00	1.43	23.41	47.85	0.3164	518
1992	34,963.33	70.00	1.43	574.97	48.70	0.3043	12,235
1995	24,709.61	70.00	1.43	406.35	51.29	0.2673	7,595
1996	40,071.57	70.00	1.43	658.98	52.16	0.2549	11,745
1997	597.45	70.00	1.43	9.83	53.04	0.2423	166
1998	413,791.31	70.00	1.43	6,804.80	53.93	0.2296	109,243
1999	188,675.31	70.00	1.43	3,102.77	54.81	0.2170	47,084
2000	7,825.62	70.00	1,43	128.69	55.70	0.2043	1,839
2004	21,567.41	70.00	1.43	354.68	59.31	0.1527	3,788
2005	21,420.45	70.00	1.43	352.26	60.23	0.1396	3,438
2006	120,723.11	70.00	1.43	1,985.29	61.14	0.1266	17,572
2007	42,081.01	70.00	1.43	692.02	62.06	0.1134	5,489
2008	78,273.59	70.00	1.43	1,287.21	62.98	0.1003	9,028
2011	193,984.49	70.00	1.43	3,190.07	65.77	0.0604	13,481
2012	9,342.95	70.00	1.43	153.64	66.71	0.0470	505
2013	15,732.36	70.00	1.43	258.72	67.64	0.0337	610
2014	1,657.50	70.00	1.43	27.26	68.58	0.0203	39
2015	38,320.78	70.00	1.43	630.19	69.53	0.0067	296
	2 909 261 97			47 049 89			1 499 017
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COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.64

# ACCOUNT 307 WELLS AND SPRINGS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST	AVG. LIFE	ANNUAL RATE	ACCRUAL AMOUNT	EXP.	ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVO	R CURVE IOWA	45-R2					
NET SAL	VAGE PERCENT	-15					
1923	5,883.59	45.00				1.0000	6,766
1925	1,413.00	45.00				1.0000	l,625
1926	1,385.00	45.00				1.0000	1,593
1931	7,045.78	45.00				1.0000	8,103
1936	826.69	45.00	2.22	21.11	1.05	0.9767	929
1939	149.37	45.00	2.22	3.81	1.86	0,9587	165
1946	164.08	45.00	2.22	4.19	3.85	0.9144	173
1947	2,424.39	45.00	2.22	61.89	4.14	0.9080	2,532
1949	281.79	45.00	2.22	7.19	4.721	0.8951	290
1950	11,173.37	45.00	2.22	285.26	5.01	0.8887	11,419
1951	471.70	45.00	2.22	12.04	5.30	0.8822	479
1952	4,614.50	45.00	2.22	117.81	5.60	0.8756	4,646
1953	8,403.75	45.00	2.22	214.55	5.90	0.8689	8,397
1954	2,448.75	45.00	2.22	62.52	6.20	0.8622	2,428
1955	10,846.64	45.00	2.22	276.91	6.51	0.8553	10,669
1956	11,079.85	45.00	2.22	282.87	6.82	0.8484	10,811
1957	614.05	45.00	2.22	15.68	7.14	0.8413	594
1958	832.28	45.00	2.22	21.25	7.47	0.8340	798
1961	792.41	45.00	2.22	20.23	8.50	0.8111	739
1963	1,613.00	45.00	2.22	41.18	9,24	0.7947	1,474
1964	35,031.38	45.00	2.22	894.35	9.63	0.7860	31,665
1965	혀 5,232.45	45.00	2.22	1,154.78	10.03	0.7771	40,423
1967	20,023.10	45.00	2.22	511.19	10.86	0.7587	17,470
1969	20,218.00	45.00	2.22	516.17	11.75	0.7389	17,180
1970	5,461.00	45.00	2.22	139.42	12.21	0.7287	4,576
1971	15,870.00	45.00	2.22	405.16	12.69	0.7180	13,104
1972	100.00	45.00	2.22	2.55	13.18	0.7071	81
1973	702.00	45.00	2.22	17.92	13.68	0.6960	562
1975	4,012.00	45.00	2.22	102.43	14.72	0.6729	3,105
1976	30,837.00	45.00	2.22	787.27	15.26	0.6609	23,437
1977	18,302.00	45.00	2.22	467,25	15.82	0.6484	13,648
1978	11,535.00	45.00	2.22	294.49	16.39	0.6358	8,434
1979	64,908.29	45.00	2.22	1,657.11	16.97	0.6229	46,495
1981	1,669.49	45.00	2.22	42.62	18.16	0.5964	1,145
1982	15,866.00	45.00	2.22	405.06	18.78	0.5827	10,631
1983	12.00	45.00	2.22	0.31	19.41	0.5687	8
1984	84,519.27	45.00	2.22	2,157.78	20.05	0.5544	53,890
1985	48,315.02	45.00	2.22	1,233.48	20.70	0.5400	30,004
1986	46,914.82	45.00	2.22	1,197.74	21.37	0.5251	28,331
1987	127,836.52	45.00	2.22	3,263.67	22.04	0.5102	75,008
1988	84,562.25	45.00	2.22	2,158.87	22.73	0.4949	48,126
1989	3,880.28	45.00	2.22	99.06	23.42	0.4796	2,140
1990	41,479.41	45.00	2.22	1,058.97	24.13	0.4638	22,123

#### ACCOUNT 307 WELLS AND SPRINGS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEA	R COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURV	VIVOR CURVE IOWA	45-R2					
NET	SALVAGE PERCENT	-15					
1991	. 92,151.00	45.00	2.22	2,352.62	24.84	0.4480	47,476
1992	18,048.20	45.00	2.22	460.77	25.57	0.4318	8,962
1993	37,868.99	45.00	2,22	966.80	26.30	0.4156	18,097
1994	37,417.57	45,00	2.22	955.27	27.05	0.3989	17,164
1995	31,307.19	45.00	2.22	799.27	27.80	0.3822	13,761
1996	242,349.94	45.00	2.22	6,187.19	28.57	0.3651	101,757
1997	121,984.12	45,00	2.22	3,114.25	29.34	0.3480	48,818
1998	302,674.11	45.00	2.22	7,727.27	30.12	0.3307	115,098
1999	79,574.49	45.00	2.22	2,031.54	30.91	0.3131	28,653
2000	264,838.13	45.00	2.22	6,761.32	31.71	0.2953	89,947
2001	70,606.77	45.00	2.22	1,802.59	32.51	0.2776	22,537
2002	60,396.35	45.00	2.22	1,541.92	33.32	0.2596	18,028
2003	368,020.47	45.00	2.22	9,395.56	34.15	0.2411	102,043
2004	133,661.63	45.00	2.22	3,412.38	34.98	0.2227	34,227
2005	377,094.50	45.00	2.22	9,627.22	35.81	0.2042	88,562
2006	412,923.50	45.00	2.22	10,541.94	36.66	0.1853	88,006
2007	267,546.68	45.00	2.22	6,830.47	37.51	0.1664	51,210
2008	276,396.89	45.00	2.22	7,056.41	38.36	0.1476	46,903
2009	235,194.04	45.00	2.22	6,004.50	39.23	0.1282	34,680
2010	70,294.56	45.00	2.22	1,794.62	40.10	0.1089	8,803
2011	46,633.48	45.00	2.22	1,190.55	40.98	0.0893	4,791
2012	49,479.67	45.00	2.22	1,263.22	41.86	0.0698	3,971
2013	200,985.81	45.00	2.22	5,131.17	42.75	0.0500	11,557
2014	11,217.74	45.00	2.22	286.39	43.65	0.0300	387
2015	245,474.91	45.00	2.22	6,266.97	44.55	0.0100	2,823

4,853,892.01

123,518.35

1,574,477

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.54

### ACCOUNT 308 INFILTRATION GALLERIES AND TUNNELS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIVO NET SAL	R CURVE IOWA VAGE PERCENT	60-S1.5 0					
1997	1,140.11	60.00	1.67	19.04	42.46	0.2923	333
2009	23,269.36	60.00	1.67	388.60	53.56	0.1073	2,498
	24,409.47			407.64			2,831

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.67

## ACCOUNT 309 SUPPLY MAINS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE IOWA	70-R3					
NET SALV	AGE PERCENT	- 5					
1928	1,345.71	70.00	1.43	20.21	7.77	0.8890	1,256
1940	1,055.26	70.00	1.43	15,84	11.74	0.8323	922
1952	1,044.25	70.00	1.43	15.68	17.46	0.7506	823
1955	1,473.05	70.00	1.43	22.12	19.19	0.7259	1,123
1957	42,987.38	70.00	1.43	645.46	20.41	0.7084	31,976
1958	35,809.49	70.00	1.43	537.68	21.03	0.6996	26,304
1959	1,525.77	70.00	1.43	22.91	21.67	0.6904	1,106
1960	17.15	70.00	1.43	0.26	22.32	0.6811	12
1961	153,183.83	70.00	1.43	2,300.06	22.98	0.6717	108,040
1963	119.89	70.00	1.43	1,80	24.33	0.6524	82
1964	270.57	70.00	1.43	4.06	25.02	0.6426	183
1965	213,649.44	70.00	1.43	3,207.95	25.72	0.6326	141,906
1966	4,656.61	70.00	1.43	69.92	26.43	0.6224	3,043
1967	37,411.37	70.00	1.43	561.73	27.14	0.6123	24,052
1969	706.55	70.00	1.43	10.61	28.61	0.5913	439
1971	5,957.73	70.00	1.43	89.46	30.11	0.5699	3,565
1972	59,624.13	70.00	1.43	895.26	30.87	0.5590	34,996
1974	18,408.29	70.00	1.43	276.40	32.42	0.5369	10,377
1976	23,079.13	70.00	1,43	346.53	33.99	0.5144	12,466
1978	19,517.03	70.00	1.43	293.05	35.60	0.4914	10,071
1981	4,428.87	70.00	1.43	66.50	38.07	0.4561	2,121
1982	260.37	70.00	1.43	3.91	38.91	0.4441	121
1983	13,141.77	70.00	1.43	197.32	39.75	0.4321	5,963
1984	242,906.68	70.00	1.43	3,647.24	40.60	0.4200	107,122
1985	21,070.15	70.00	1.43	316.37	41.46	0.4077	9,020
1986	345.90	70.00	1.43	5.19	42.32	0.3954	144
1987	23,075.35	70.00	1.43	346.48	43.19	0.3830	9,280
1988	26,114.69	70.00	1.43	392.11	44.07	0.3704	10,157
1989	34,851.99	70.00	1.43	523.30	44.95	0.3579	13,096
1991	2,989.25	70.00	1.43	44.88	46.73	0.3324	1,043
1993	10,199.34	70.00	1.43	153.14	48.54	0.3066	3,283
1994	773.76	70.00	1.43	11.62	49.45	0.2936	239
1995	7,304.11	70.00	1.43	109.67	50.36	0.2806	2,152
1996	330,878.07	70.00	1.43	4,968.13	51.29	0.2673	92,862
1997	6,220.80	70.00	1.43	93.41	52.21	0.2541	1,660
1998	68,328.51	70.00	1.43	1,025.95	53.14	0.2409	17,280
2000	63,309.60	70.00	1.43	950.59	55.02	0.2140	14,226
2001	6,128.51	70.00	1.43	92.02	55.96	0.2006	1,291
2003	31,638.61	70.00	1.43	475.05	57.86	0.1734	5,761
2006	39,832.08	70.00	1.43	598.08	60.73	0.1324	5,539
2007	5,174.47	70.00	1.43	77.69	61.70	0.1186	644
2008	1,025.12	70.00	1.43	15.39	62,67	0.1047	113
2009	37,383.09	70.00	1.43	561.31	63.64	0.0909	3,566

## ACCOUNT 309 SUPPLY MAINS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP./	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVI NET SA	VOR CURVE IOWA ALVAGE PERCENT	70-R3 -5					
2010	38,233.61	70.00	1.43	574.08	64.61	0.0770	3,091
2013	1,708.67	70.00	1.43	25.66	67.54	0.0351	63
2014	3,888.11	70.00	1.43	58.38	68.52	0.0211	86
	1,643,054.11			24,670.46			722,665

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.50

## ACCOUNT 310 POWER GENERATION EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUA	L ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIV	OR CURVE IOWA	35-R4					
NET SA	LVAGE PERCENT	-10					
1983	11,986.09	35.00	2.86	377.08	6.43	0.8163	10,763
1987	97.19	35.00	2.86	3.06	9.02	0.7423	79
1990	3,292.78	35.00	2.86	103.59	11.20	0.6800	2,463
1994	114,123.30	35.00	2.86	3,590.32	14.41	0.5883	73,851
1995	20,404.70	35,00	2.86	641.93	15.26	0.5640	12,659
1996	12,751.75	35.00	2.86	401.17	16.13	0.5391	7,562
1999	440,773.65	35.00	2.86	13,866.74	18.84	0.4617	223,861
2000	72,172.38	35.00	2.86	2,270.54	19.77	0.4351	34,546
2005	554.40	35.00	2.86	17.44	24.57	0.2980	182
2006	32,407.83	35.00	2.86	1,019.55	25.55	0.2700	9,625
2007	1,883,609.17	35.00	2.86	59,258.34	26.54	0.2417	500,816
2008	478,925.43	35.00	2.86	15,066.99	27.53	0.2134	112,439
2009	1,593.53	35.00	2.86	50.13	28.52	0.1851	325
2010	13,691.23	35.00	2.86	430.73	29.51	0.1569	2,362
2011	931,427.81	35.00	2.86	29,302.72	30.51	0.1283	131,442
2012	10,965.85	35.00	2.86	344.99	31.51	0.0997	1,203
2013	26,665.34	35.00	2.86	838.89	32.50	0.0714	2,095
2014	101,335.21	35.00	2.86	3,188,01	33,50	0.0429	4,778
2015	87,267.56	35.00	2.86	2,745.44	34.50	0.0143	1,372

4,244,045.20

133,517.66

1,132,423

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.15

## ACCOUNT 311 PUMPING EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CIENTIO		45 53					
NET CNI	R CORVE IOWA	1 45-RI					
NEI SAL	VAGE PERCENT	-10					
1879	834.96	45.00				1 0000	918
1886	1,733,12	45.00	,			1 0000	1 906
1896	1,912,78	45.00				1 0000	2 104
1910	150.56	45.00				1 0000	2,107
1925	1,348.80	45.00				1 0000	1 4 8 4
1928	8,001.64	45.00	2.22	195.40	0.97	0 9784	8 612
1932	8,262,35	45.00	2.22	201.77	2.32	0.9484	8 620
1938	117.29	45.00	2.22	2.86	4 13	0 9082	117
1946	109.16	45.00	2.22	2.67	5 64	0 8524	102
1947	815.38	45.00	2.22	19,91	6 97	0 8451	759
1948	704.64	45.00	2.22	17 21	731	0.8376	50
1949	601.13	45.00	2.22	14.68	7 65	0.8300	549
1950	371.91	45.00	2.22	9.08	8 00	0 8222	336
1951	100.85	45.00	2.22	2 46	836	0 8142	90
1952	20,437,94	45.00	2.22	499 09	8 72	0 8062	18 125
1953	103,295.43	45.00	2.22	2.522.47	9.09	0.7980	90 673
1954	219.51	45.00	2.22	5.36	9 46	0 7898	191
1955	946.37	45.00	2.22	23,11	9 84	0.7813	213 213
1956	6.797.10	45.00	2.22	165 99	10 22	0.7729	5 779
1957	61,103.02	45.00	2.22	1.492.14	10.61	0 7642	51 366
1958	163,831.55	45.00	2.22	4,000.77	11 01	0.7553	136 122
1959	35,363,58	45.00	2.22	863 58	11 41	0.7464	29 035
1960	310.69	45.00	2.22	7.59	11 82	0 7373	25,050
1961	23.845.95	45.00	2.22	582.32	12 24	0 7280	19 096+
1962	95.00	45.00	2.22	2.32	12 66	0.7187	
1963	2,520.02	45.00	2.22	61 54	13 09	0 7091	1 966
1964	6,645,94	45.00	2.22	162.29	13.52	0.6996	5 114
1965	38,539.44	45.00	2.22	941.13	13.96	0 6898	29 242
1966	31,607.48	45.00	2.22	771.85	14.41	0.6798	23 635
1967	54,765.30	45.00	2.22	1.337.37	14.87	0.6696	40 336
1968	17,147.04	45.00	2.22	418.73	15.33	0.6593	12,436
1969	4,044.87	45.00	2.22	98.78	15.81	0.6487	2 886
1970	2,029.28	45.00	2.22	49.56	16.28	0.6382	1 425
1971	20,484.99	45.00	2.22	500.24	16.77	0.6273	14,136
1972	97,806.16	45.00	2.22	2.388.43	17.26	0.6164	66.321
1973	168,787.12	45.00	2.22	4,121,78	17.77	0.6051	112,348
1974	39,240.91	45.00	2.22	958.26	18.27	0.5940	25 640
1975	17,382.93	45.00	2.22	424.49	18.79	0.5824	11 137
1976	54,676.44	45.00	2.22	1,335.20	19.32	0.5707	34 322
1977	40,251.22	45.00	2.22	982.93	19.85	0.5589	24.746
1978	15,133.48	45.00	2.22	369.56	20.39	0.5469	9,104
1979	77,421.92	45.00	2.22	1,890.64	20.93	0.5349	45,553
1980	14,468.81	45.00	2.22	353.33	21.49	0.5224	8.315
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## ACCOUNT 311 PUMPING EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SUBVI	VOR CURVE TOWN	45					
NET S	ALVAGE PERCENT	-10					
		τ¢					
1981	54,694.23	45.00	2,22	1,335.63	22.05	0.5100	30,683
1982	32,146.69	45.00	2.22	785.02	22.62	0.4973	17,586
1983	25,988.18	45.00	2.22	634.63	23.20	0.4844	13,849
1984	365,406.87	45.00	2.22	8,923.24	23.79	0.4713	189,450
1985	142,429.47	45.00	2.22	3,478.13	24.38	0.4582	71,790
1986	141,215.54	45.00	2.22	3,448.48	24.98	0.4449	69,108
1987	184,822.44	45.00	2,22	4,513.36	25.59	0.4313	87,691
1988	70,459.03	45.00	2.22	1,720.61	26.20	0.4178	32,380
1989	48,767.66	45.00	2,22	1,190.91	26.82	0.4040	21,672
1990	325,405.79	45.00	2.22	7,946.41	27.45	0.3900	139,599
1991	105,462.91	45.00	2.22	2,575.40	28.09	0.3758	43,594
1992	346,591.19	45.00	2.22	8,463.76	28.73	0.3616	137,845
1993	132,220.28	45.00	2.22	3,228.82	29.37	0.3473	50,516
1994	350,259.24	45.00	2.22	8,553.33	30.02	0.3329	128,258
1995	732,564.13	45.00	2.22	17,889.22	30.68	0.3182	256,428
1996	357,705.61	45.00	2.22	8,735.17	31.34	0.3036	119,444
1997	978,815.96	45.00	2.22	23,902.69	32.00	0.2889	311,047
1998	220,917.22	45.00	2.22	5,394.80	32.67	0.2740	66,584
1999	965,799.42	45.00	2.22	23,584.82	33.35	0.2589	275,039
2000	549,254.89	45.00	2.22	13,412.80	34.02	0.2440	147,420
2001	852,448.19	45.00	2.22	20,816.78	34.70	0.2289	214,629
2002	702,521.60	45.00	2.22	17,155.58	35.39	0.2136	165,034
2003	596,606.13	45.00	2.22	14,569.12	36.07	0.1984	130,230
2004	844,280.96	45.00	2.22	20,617.34	36.76	0.1831	170,056
2005	337,711.53	45.00	2.22	8,246.92	37.46	0.1676	62,246
2006	1,051,404.74	45.00	2.22	25,675.30	38.15	0.1522	176,049
2007	457,556.54	45.00	2.22	11,173.53	38.86	0.1364	68,672
2008	493,448.03	45.00	2.22	12,050.00	39.56	0.1209	65,618
2009	169,970.05	45.00	2.22	4,150.67	40.27	0.1051	19,652
2010	577,479.71	45.00	2.22	14,102.05	40.99	0.0891	56,605
2011	840,595.13	45.00	2.22	20,527.33	41.71	0.0731	67,602
2012	419,148.54	45.00	2,22	10,235.61	42.43	0.0571	26,331
2013	638,868.93	45.00	2.22	15,601.18	43.16	0.0409	28,736
2014	167,720.68	45.00	2.22	4,095.74	43.89	0.0247	4,551
2015	576,866.64	45.00	2.22	14,087.08	44.63	0.0082	5,216
	16,001,818.21			390,618.35			4,317,811

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.44

# ACCOUNT 320 WATER TREATMENT EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVO	R CURVE IOWA	55-R2					
NET SAL	VAGE PERCENT	-15					
1894	9 105 34	EE 00					
1908	54 535 10	55.00				1.0000	10,471
1911	5 979 83	55.00				1.0000	62,715
1917	18 835 20	55.00	1 0 7	204 20	0.04	1.0000	6,819
1918	1 087 75	55.00	1 02	394.22	0.94	0.9829	21,290
1919	£11 52	55 00	1 90	22.77	1.20	0.9782	1,224
1920	249 87	55 00	1 02	12.80	1.40	0.9/35	685
1923	19 972 13	55.00	1.02	5.23	1.72	0.9687	278
1930	74 078 75	55.00	1 02	418.02	2.54	0.9538	21,907
1932	30 174 57	55.00	1 02	503.97	4.54	0.9175	25,405
1935	84 619 00	55.00	1 02	1 771 00	5.12	0.9069	31,470
1937	201,019.00	55.00 EE 00	1.02	1,//1.08	5.99	0.8911	86,714
1939	24 E4	55.00	1.82	7.98	6.58	0.8804	386
1944	J4.J4 J1¢ 10	55.00	1.82	0.72	7.18	0.8695	35
1944	JI0.10	55.00	1.82	6.62	8.73	0.8413	306
1951	0/1.90	55.00	1.82	18.25	10.08	0.8167	819
1053	740.04 107 70	55.00	1.82	19.39	11.17	0.7969	849
1953	4,10/./2 20 0/0 1/2	55.00	1.82	87.65	11.55	0.7900	3,805
1953	34 366 70	55.00	1.82	6,514.46	II.95	0.7827	280,168
1955	14 702 70	55.00	1.82	760.92	12.35	0.7755	32,421
1955	14,703.20	55.00	1.82	309.41	12.76	0.7680	13,057
1957	1,202.77 ABC AAB 77	55.00	1.82	124.95	13.18	0.7604	5,220
1957	400,449.72	55.00	1.82	10,181.39	13.62	0.7524	420,883
1050	318,104.08	55.00	1.82	10,843.92	14.06	0.7444	443,504
1959	1,8/3.41	55.00	1.82	39.21	14.51	0.7362	1,586
1960	93,505.33	55.00	1.82	1,957.07	14.98	0.7276	78,244
1961	12,098.86	55.00	1.82	253.23	15.45	0.7191	10,005
1962	55,781.79 14 000 CO	55.00	1.82	1,167.51	15.94	0.7102	45,557
1963	14,923.60	55.00	1.82	312.35	16.44	0.7011	12,032
1964	75,043.51	55.00	1.82	1,570.66	16.95	0,6918	59,704
1965	70,241.55	55.00	1.82	1,470.16	17.47	0.6824	55,120
1966	21,670.62	55.00	1.82	453.57	17.99	0.6729	16,770
1967	21,084.24	55.00	1.82	441.29	18.54	0.6629	16,073
1968	488,296.07	55.00	1.82	10,220.04	19.09	0.6529	366,635
1969	21,382.88	55.00	1.82	447.54	19.65	0.6427	15,805
1970	24,901.08	55.00	1.82	521.18	20.22	0.6324	18,108
19/1	59,250.03	55.00	1.82	1,240.10	20.80	0.6218	42,369
1972	195,082.13	55.00	1.82	4,083.07	21.40	0.6109	137,054
1973	211,556.63	55.00	1.82	4,427.88	22.00	0.6000	145,974
1974	110,404.75	55.00	1.82	2,310.77	22.61	0.5889	74,771
TA12	14,228.05	55.00	1.82	297.79	23.23	0.5776	9,451
TA.19	134,049.42	55.00	1.82	2,805.65	23.87	0.5660	87,253
1977	52,860.19	55.00	1.82	1,106.36	24.51	0.5544	33,699
1978	88,698.24	55.00	1.82	1,856.45	25.16	0.5426	55,342

# ACCOUNT 320 WATER TREATMENT EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVI	VOR CURVE TOWA	55-82					
NET S	SALVAGE PERCENT	-15					
		10					
1979	64,242.66	55.00	1.82	1,344.60	25.82	0.5306	39 197
1980	53,795.97	55.00	1.82	1,125.95	26.49	0.5184	32,069
1981	103,989.11	55.00	1.82	2,176,49	27.17	0.5060	60.511
1982	44,539.31	55.00	1.82	932.21	27.85	0.4936	25,284
1983	88,875.62	55.00	1.82	1,860.17	28,55	0.4809	49,152
1984	655,629.25	55.00	1.82	13,722.32	29.25	0.4682	352,995
1985	370,922.43	55.00	1.82	7,763.41	29.96	0,4553	194,200
1986	351,335.16	55.00	1.82	7,353.44	30.68	0.4422	178.656
1987	203,477.75	55.00	1.82	4,258.79	31.41	0.4289	100.365
1988	25,886.75	55.00	1.82	541.81	32.15	0.4155	12,368
1989	539,216.01	55.00	1.82	11,285.79	32.89	0.4020	249,280
1990	491,643.87	55.00	1.82	10,290.11	33.64	0.3884	219,575
1991	797,597.73	55.00	1.82	16,693.72	34.40	0.3746	343,551
1992	887,697.15	55.00	1.82	18,579.50	35.17	0.3606	368,068
1993	4,379,622.99	55.00	1.82	91,665.51	35.94	0.3466	1,745,422
1994	1,007,886.32	55.00	1.82	21,095.06	36.72	0.3324	385,228
1995	3,704,578.55	55.00	1.82	77,536.83	37.51	0.3180	1,354,764
1996	2,275,246.06	55.00	1.82	47,620.90	38.31	0.3035	793,987
1997	3,561,610.96	55.00	1.82	74,544.52	39.11	0.2889	1,183,333
1998	434,207.67	55.00	1.82	9,087.97	39.92	0.2742	136,909
1999	3,327,622.52	55.00	1,82	69,647.14	40.73	0.2595	992,854
2000	208,951.80	55.00	1.82	4,373.36	41.55	0.2446	58,764
2001	98,581.12	55.00	1.82	2,063.30	42.38	0.2295	26,012
2002	1,300,280.17	55.00	1.82	27,214.86	43.21	0.2144	320,537
2003	350,227.24	55.00	1.82	7,330.26	44.05	0.1991	80,186
2004	364,591.95	55.00	1.82	7,630.91	44.89	0.1838	77,072
2005	612,675.23	55.00	1.82	12,823.29	45.75	0.1682	118,496
2006	1,682,494.48	55.00	1.82	35,214.61	46.60	0.1527	295,512
2007	965,670.07	55.00	1.82	20,211.47	47.46	0.1371	152,241
2008	1,137,129.87	55.00	1.82	23,800.13	48.33	0.1213	158,585
2009	2,399,132.63	55.00	1.82	50,213.85	49.20	0.1055	290,937
2010	1,980,649.87	55.00	1.82	41,455.00	50.08	0.0895	203,745
2011	4,500,649.49	55.00	1.82	94,198.59	50.97	0.0733	379,227
2012	761,475.82	55.00	1.82	15,937.69	51.85	0.0573	50,151
2013	5,254,277.84	55.00	1.82	109,972.04	52,75	0.0409	247,195
2014	2,985,788.37	55.00	1.82	62,492.55	53.65	0.0246	84,296
2015	974,289.67	55.00	1.82	20,391.88	54.55	0.0082	9,165
	** * * * * * * * * *						
	52,342,251.33		1,(	94,067.21			14,121,872

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.09

# ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE IOWA	70-R3					
NET SALV	AGE PERCENT	-25					
1000	222 42	<b>H</b> O OO					
1009	228.48	70.00				1.0000	286
1908	507.50 20 E02 OC	70.00	1.43	10.86	2.58	0.9631	732
1920	29,093.86 CDD 04	70.00	1.43	528.99	4.36	0.9377	34,688
1920	10 633.04	70.00	1.43	12.32	5.65	0.9193	792
1930	18,632.70	70.00	1.43	333.06	10.25	0.8536	19,880
1938	15,345.91	70.00	1.43	274.33	10.97	0.8433	16,177
1942	58,228.30	70.00	1.43	1,040.83	12.56	0.8206	59,725
1944	/28./6	70.00	1.43	13.03	13.43	0.8081	736
1945	1,680.32	70.00	1.43	30.04	13.89	0.8016	1,684
1946	31,214.39	70.00	1.43	557.96	14.36	0.7949	31,014
1950	248.57	70.00	1.43	4.44	16.37	0.7661	238
1951	79,332.94	70.00	1.43	1,418.08	16.91	0.7584	75,211
1952	3,382.17	70.00	1.43	60.46	17.46	0.7506	3,173
1954	251,234.55	70.00	1.43	4,490.82	18.60	0.7343	230,599
1955	799.54	70.00	1.43	14.29	19.19	0.7259	725
1957	85,310.80	70.00	1.43	1,524.93	20.41	0.7084	75,546
1958	165,312.62	70.00	1.43	2,954.96	21.03	0.6996	144,560
1959	131,210.07	70.00	1.43	2,345.38	21.67	0.6904	113,239
1962	89,440.17	70.00₽	1.43	1,598.74	23.65	0.6621	74,027
1963	74,784.24	70.00	1.43	1,336.77	24.33	0.6524	60,989
1964	134,361.01	70.00	1.43	2,401.70	25.02	0.6426	107,920
1965	6,030.62	70.00	1.43	107.80	25.72	0.6326	4,768
1966	9,955.14	70.00	1.43	177.95	26.43	0.6224	7,745
1967	62,055.00	70.00	1.43	1,109.23	27.14	0.6123	47,495
1968	65,573.96	70.00	1.43	1,172.13	27.87	0.6019	49,333
1969	49,694.99	70.00	1.43	888.30	28.61	0.5913	36,730
1970	8,242.73	70.00	1.43	147.34	29.35	0.5807	5,983
1971	306,852.04	70.00	1.43	5,484.98	30.11	0.5699	218,578
1973	325,753.50	70.00	1.43	5,822.84	31.64	0.5480	223,141
1974	38,720.35	70.00	1.43	692.13	32.42	0.5369	25,984
1975	202,467.77	70.00	1.43	3,619.11	33.20	0.5257	133,049
1977	213.47	70.00	1.43	3.82	34.79	0.5030	134
1978	164,386.28	70.00	1.43	2,938.40	35.60	0.4914	100,980
1979	1,479.41	70.00	1.43	26.44	36.42	0.4797	887
1980	3,667.77	70.00	1.43	65.56	37.24	0.4680	2,146
1981	860,618.83	70.00	1.43	15,383.56	38.07	0.4561	490,703
1982	950.62	70.00	1.43	16.99	38.91	0.4441	528
1983	220,290.28	70.00	1.43	3,937.69	39.75	0.4321	118,995
1984	4,935.88	70.00	1.43	88.23	40.60	0.4200	2,591
1985	12,446.58	70.00	1.43	222.48	41.46	0.4077	6,343
1986	370,740.08	70.00	1.43	6,626.98	42.32	0.3954	183,252
1987	8,998.85	70.00	1.43	160.85	43.19	0.3830	4.308
1988	777,928.00 🗌	70.00	1.43	13,905.46	44.07	0.3704	360,210

# ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAF	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURV	IVOR CURVE IOWA	70-R3					
NET :	SALVAGE PERCENT	~25					
1989	328,274.37	70.00	1.43	5,867.90	44.95	0.3579	146,845
1990	1,235,631.35	70.00	1.43	22,086.91	45.84	0.3451	533,082
1991	10,254.12	70.00	1.43	183.29	46.73	0.3324	4,261
1992	594,986.78	70.00	1.43	10,635.39	47.63	0.3196	237,675
1993	111,202.61	70.00	1.43	1,987.75	48.54	0.3066	42,614
1994	24,560.49	70.00	1.43	439.02	49.45	0.2936	9,013
1995	15,227.73	70.00	1.43	272.20	50.36	0.2806	5,341
1996	2,289.00	70.00	1.43	40.92	51.29	0.2673	765
1997	2,301,443.12	70.00	1.43	41,138.30	52.21	0.2541	731,111
1998	997.09	70.00	1.43	17.82	53.14	0.2409	300
1999	64,968.87	70.00	1.43	1,161.32	54.08	0.2274	18,470
2000	11,390.47	70.00	1.43	203.60	55.02	0.2140	3,047
2001	1,761,928.55	70.00	1.43	31,494.47	55.96	0.2006	441,738
2002	231,233.83	70.00	1.43	4,133.30	56.91	0.1870	54,051
2003	998,488.30	70.00	1.43	17,847.98	57.86	0.1734	216,460
2004	96,482.38	70.00	1.43	1,724.62	58.81	0.1599	19,280
2006	1,040,161.80	70.00	1.43	18,592.89	60.73	0.1324	172,186
2007	367,953.21	70.00	1.43	6,577.16	61.70	0.1186	54,535
2008	1,346,641.53	70.00	1.43	24,071.22	62.67	0.1047	176,259
2009	6,092.25	70.00	1.43	108.90	63.64	0.0909	692
2010	2,041,394.64	70.00	1.43	36,489.93	64.61	0.0770	196,484
2011	79,573.96	70.00	1.43	1,422.38	65.59	0.0630	6,266
2012	29,405.76	70.00	1.43	525.63	66.56	0.0491	1,806
2013	414,339.71	70.00	1.43	7,406.32	67.54	0.0351	18,200
2014	16,075.94	70.00	1.43	287.36	68.52	0.0211	425
2015	412,886.62	70.00	1.43	7,380.35	69.51	0.0070	3,613
	18,218,253.67			325,647.19			6,170,343

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.79

### ACCOUNT 330.40 DISTRIBUTION RESERVOIRS AND STANDPIPES - TANK PAINTING

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAI	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVO	R CURVE 15-1	SQUARE					
NET SALV	VAGE PERCENT.	. 0					
2013	872,717.06	15.00	6.67	58,210.23	12.50	0.1667	145,456
2014	570,906.27	15.00	6.67	38,079.45	13.50	0.1000	57,091
2015	375,223.30	15.00	6.67	25,027.39	14.50	0.0333	12,506
1	.,818,846.63			121,317.07			215,053

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 6.67

## ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE IOWA	90-R3					
NET SALV	AGE PERCENT	-45					
1888	81,484.28	90.00	1.11	1,311.49	6.05	0.9328	110.210
1891	5,763.68	90.00	1.11	92.77	6.82	0.9242	7,724
1892	3,789.42	90.00	1.11	60.99	7.08	0.9213	5.062
1894	1,588.80	90.00	1.11	25.57	7.60	0.9156	2,109
1895	1,462.20	90.00	1.11	23.53	7.85	0.9128	1.935
1896	1,534.39	90.00	1.11	24.70	8.11	0,9099	2.024
1898	2,208.63	90.00	1.11	35.55	8.63	0.9041	2,895
1899	134.09	90.00	1.11	2.16	8.90	0.9011	175
1900	329.29	90.00	1.11	5.30	9.17	0.8981	429
1901	3,603.98	90.00	1.11	58.01	9.44	0.8951	4.678
1902	349.81	90.00	1.11	5.63	9.71	0.8921	453
1903	2,346.21	90.00	1.11	37.76	9.99	0.8890	3,024
1904	899.97	90.00	1.11	14.49	10.27	0.8859	1,156
1905	2,186.26	90.00	1.11	35.19	10.56	0.8827	2,798
1906	2,486.59	90.00	1.11	40.02	10.85	0.8794	3,171
1907	978.95	90.00	1.11	15.76	11.15	0.8761	1,244
1908	5,433.32	90.00	1.11	87.45	11.45	0.8728	6,876
1909	162.81	90.00	1.11	2,62	11.76	0.8693	205
1910	305.36	90.00	1.11	4.91	12.08	0.8658	383
1911	434.64	90.00	1.11	7.00	12.41	0.8621	543
1912	13,216.17	90.00	1.11	212.71	12.74	0.8584	16,451
1913	5,252,83	90.00	1.11	84.54	13.08	0.8547	6,510
1914	9,782,92	90.00	1.11	157.46	13.43	0.8508	12,069
1915	7,325.82	90.00	1.11	117.91	13.79	0.8468	8,995
1916	9,555.74	90.00	1.11	153.80	14.16	0.8427	11,676
1917	26,606,43	90.00	1.11	428.23	14.54	0 8384	32 346
1918	52,077,71	90.00	1.11	838.19	14.93	0.8341	62,986
1919	5,852.74	90.00	1.11	94.20	15.33	0.8297	7.041
1920	15,972.78	90.00	1.11	257.08	15.73	0.8252	19,113
1921	52,395.90	90.00	1.11	843.31	16.15	0.8206	62,341
1922	6,946.56	90.00	1.11	111.80	16.58	0.8158	8.217
1923	26,679.96	90.00	1.11	429.41	17.02	0.8109	31.370
1924	109,835.81	90.00	1.11	1,767.81	17.47	0.8059	128.348
1925	53,624.90	90.00	1.11	863.09	17.92	0.8009	62,274
1926	23,538.32	90.00	1.11	378.85	18.39	0.7957	27,157
1927	900,545.97	90.00	1.11	14.494.29	18.87	0.7903	1.032.006
1928	97,659.07	90.00	1.11	1,571.82	19.37	0.7848	111,129
1929	60,663.49	90.00	1.11	976.38	19.87	0.7792	68,542
1930	384.745.67	90.00	1.11	6.192.48	20.38	0.7736	431.555
1931	29,264.68	90.00	1.11	471.02	20.90	0.7678	32.580
1932	3,671.35	90.00	1.11	59.09	21.43	0.7619	4,056
1933	3,448.20	90.00	1.11	55.50	21.98	0.7558	3,779
1934	5,578.61	90.00	1.11	89.79	22.53	0.7497	6.064
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🖄 Gannett Fleming

Aqua OH December 31, 2015

# ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIV	OR CURVE TOWA	F4.00					
NET SA	INAGE DEPOENT	-45					
NDI DV	DVROB FERCENT.,	-40					
1935	703,168.45	90.00	1.11	11,317.50	23.10	0.7433	757.895
1936	24,186.02	90.00	1.11	389.27	23.67	0.7370	25,846
1937	44,019.57	90.00	1.11	708.49	24.25	0.7306	46 630
1938	11,789,58	90.00	1.11	189.75	24 85	0 7239	10,000
1939	44,019.67	90.00	1.11	708.50	25 45	0 7172	45 779
1940	42,302,49	90.00	1 11	680 86	26.06	0 7104	43,773
1941	33,247,04	90.00	1 11	535 11	26.68	0.7104	43,277 72 017
1942	65,443,28	90.00	1 11	1 053 31	20.00	0.7030	55,917
1943	6,692,94	90.00	1 11	107 72	27.51	0.0900	66,098
1944	14,375,79	90.00	1 1 1	231 38	29 60	0.0054	
1945	53,331 57	90.00	1 11	251.50	20.00	0.0022	14,221
1946	45 659 19	90.00	1 1 1		29.20	0.0/49	52,190
1947	96 942 80	90.00		1 54.00	23.32	0.0070	44,196
1948	138 170 67	90.00	1 11	1,000.29 0 000 0C	30.80	0.6600	92,774
1949	128 138 00	90.00	 1 11	2,223.00	31.20	0.6524	130,715
1950	198 965 49	90.00		2,002.30	31.90	0.6449	119,821
1951	183 792 07	90.00	1 11	3,202.35	32.00	0.6371	183,806
1952	235 196 91	90.00		2,900.10	33.37	0.6292	167,686
1953	451 140 DE	90.00	±.±. 1 11	3,703.33	34.08	0.6213	211,887
1954	772 370 PC	90.00		/,201.13	34.80	0.6133	401,214
1955	AIE 712 11	90.00		4,399.10	35.52	0.6053	239,902
1956	410,713.11	90.00	1 	8,707.00	30.25	0.5972	360,861
1957	440,455.91 AC2 205 16	90.00	1 1 1	7,089.11	36.99	0.5890	376,170
1050	403,293,10 E43 106 7E	90.00	1.11 1.11	7,456.74	37.74	0.5807	390,081
1050	1 ACE AEQ 17	90.00	+. + + 	8,742.59	38.49	0.5/23	450,779
1960	204 707 10	90.00	1.11	17,142.11	39.25	0.5639	870,835
1960	400 ECC 11	90.00	1.11	6,354.10	40.02	0.5553	317,894
1060	422,000.11 E44 006 10	90.00	1.11	6,801.20	40.79	0.5468	335,024
1902	544,030.12	90.00	*•**	8,769.14	41.57	0.5381	425,114
1064	333,324.37	90.00	+ · + +	8,905.76	42.35	0.5294	424,780
1904	702,925.40	90.00	1.11	11,313.58	43.14	0.5207	530,689
1965	769,943.99	90.00	1.11	12,392.25	43.93	0.5119	571,484
1966	720,497.14	90.00	1.11	11,596.40	44.74	0.5029	525,380
1967	795,098.22	90.00	1.11	12,797.11	45.54	0.4940	569,529
T 7 6 8	578,547.08	90.00	1.11	9,311.72	46.36	0.4849	406,771
1969	1,095,097.86	90.00	1.11	17,625.60	47.18	0.4758	755,487
1970	661,899.24	90.00	1.11	10,653.27	48.00	0.4667	447,888
1971	629,820.18	90.00	1.11	10,136.96	48.83	0.4574	417,752
1972	922,486.59	90.00	1.11	14,847.42	49.66	0.4482	599,542
1973	1,198,015.23	90.00	1.11	19,282.06	50.50	0.4389	762,406
1974	1,027,841.79	90.00	1.11	16,543.11	51.35	0.4294	640,025
1975	563,877.79	90.00	1.11	9,075.61	52.20	0.4200	343,402
1976	436,801.54	90.00	1.11	7,030.32	53.06	0.4104	259,957
1977	859,730.04	90.00	1.11	13,837.35	53.92	0.4009	499,753

#### ACCOUNT 331 TRANSMISSION AND DISTRIBUTION MAINS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG,	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAF	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURV	IVOR CURVE IOWA	90-R3					
NET	SALVAGE PERCENT.	-45					
1978	1,588,726.94	90.00	1.11	25,570.56	54.79	0.3912	901.236
1979	1,218,550.92	90.00	1.11	19,612.58	55.66	0.3816	674,178
1980	803,387.46	90.00	1.11	12,930.52	56.53	0.3719	433,219
1981	260,336.50	90.00	1.11	4,190,12	57.41	0.3621	136,692
1982	224,267.27	90.00	1.11	3,609.58	58.30	0.3522	114,538
1983	1,140,049.42	90.00	1.11	18,349.10	59.19	0.3423	565,896
1984	521,865.34	90.00	1.11	8,399.42	60.08	0.3324	251,559
1985	1,749,072.10	90.00	1.11	28,151.32	60.98	0.3224	817.758
1986	598,205.29	90.00	1.11	9,628.11	61.89	0.3123	270,914
1987	1,504,648.58	90.00	1.11	24.217.32	62.80	0.3022	659,366
1988	1,592,083.00	90.00	1.11	25,624,58	63.71	0.2921	674,342
1989	727,441.50	90.00	1.11	11.708.17	64.62	0.2820	297.451
1990	822,309.36	90.00	1.11	13.235.07	65.54	0.2718	324,056
1991	1,064,402,42	90.00	1.11	17,131,56	66.47	0.2614	403,502
1992	4,236,449,90	90.00	1.11	68,185,66	67.39	0.2512	1.543.207
1993	2,089,206.31	90.00	1.11	33.625.78	68.33	0.2408	729,407
1994	2,061,379.43	90.00	1.11	33,177,90	69.26	0.2304	688,785
1995	2,123,049.83	90.00	1.11	34,170,49	70.20	0.2200	677,253
1996	1,495,841,51	90.00	1.11	24.075.57	71.14	0.2096	454.529
1997	1,366,465.10	90.00	1.11	21,993.26	72.08	0.1991	394.511
1998	1,363,650.42	90.00	1.11	21,947,95	73.03	0.1886	372,838
1999	4,976,373.61	90.00	1.11	80.094.73	73.98	0.1780	1,284,402
2000	5,697,380.10	90.00	1.11	91,699.33	74.94	0.1673	1.382.347
2001	2,432,406.06	90.00	1.11	39,149.58	75.89	0.1568	552,961
2002	4,909,640.82	90.00	1,11	79,020,67	76.85	0.1461	1,040,154
2003	4,407,523.61	90.00	1.11	70,939.09	77.81	0.1354	865,585
2004	3,989,620.84	90.00	1.11	64,212,95	78.78	0.1247	721,210
2005	5,039,920.36	90.00	1.11	81,117.52	79.74	0.1140	833.099
2006	7,028,914.66	90.00	1.11	113,130.38	80.71	0.1032	1,052,011
2007	7,079,105.83	90.00	1.11	113,938,21	81.68	0.0924	948.869
2008	6,295,483.99	90.00	1.11	101.325.81	82.65	0.0817	745,521
2009	3,726,415.49	90.00	1.11	59,976,66	83.63	0.0708	382,446
2010	4,163,109.06	90.00	1.11	67.005.24	84.60	0.0600	362,190
2011	2,328,495.39	90.00	1.11	37,477,13	85.58	0.0491	165,811
2012	1,752,757.73	90.00	1.11	28,210.64	86,56	0.0382	97.136
2013	6,230,986,19	90.00	1.11	100.287.72	87.54	0.0273	246.925
2014	9,896,746.82	90.00	1.11	159,288.14	88.52	0.0164	235,919
2015	9,844,908.10	90.00	1.11	158,453 80	89.51	0.0054	77 657
				,,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	138,973,599.21		2.	236,780.10			38,702.002
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COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.61

## ACCOUNT 333 SERVICES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE IOWA	75-R3					
NET SALV	AGE PERCENT	-125					
1900	49,425.63	75.00	1.33	1,479.06	2.69	0.9641	107,219
1917	3,895.68	75.00	1.33	116.58	7.04	0.9061	7.942
1923	113,151.86	75.00	1.33	3,386.07	8.68	0.8843	225,128
1924	73.10	75.00	1.33	2.19	8.97	0.8804	145
1925	4,083.95	75.00	1.33	122.21	9.26	0.8765	8,054
1926	5,572.28	75.00	1.33	166.75	9.57	0.8724	10.938
1927	35,403.70	75.00	1.33	1,059.46	9.88	0.8683	69,165
1928	7,283.29	75.00	1.33	217.95	10.20	0.8640	14,159
1929	8,608.29	75.00	1.33	257.60	10.53	0.8596	16,649
1930	4,793.06	75.00	1.33	143.43	10.87	0.8551	9,221
1931	3,691.72	75.00	1.33	110.47	11.22	0.8504	7,064
1932	3,370.89	75.00	1.33	100.87	11.59	0.8455	6,412
1933	1,989.18	75.00	1.33	59.53	11.96	0.8405	3,762
1934	3,147.19	75.00	1.33	94.18	12.34	0.8355	5,916
1935	2,829.14	75.00	1.33	84.66	12.74	0.8301	5,284
1936	4,579.11	75.00	1.33	137.03	13.14	0.8248	8,498
1937	11,198.08	75.00	1.33	335.10	13.56	0.8192	20,640
1938	1,286.93	75.00	1.33	38.51	14.00	0.8133	2,355
1939	4,359.71	75.00	1.33	130.46	14.44	0.8075	7,921
1940	4,730.87	75.00	1.33	141.57	14.90	0.8013	8,530
1941	7,553.61	75.00	1.33	226.04	15.37	0.7951	13,513
1942	2,359.57	75.00	1.33	70.61	15.85	0.7887	4,187
1943	1,782.30	75.00	1.33	53.34	16.35	0.7820	3,136
1944	2,534.05	75.00	1.33	75.83	16.85	0.7753	4,421
1945	4,222.78	75.00	1.33	126.37	17.37	0.7684	7,301
1946	16,616.43	75.00	1.33	497.25	17.91	0.7612	28,459
1947	25,487.14	75.00	1.33	762.70	18.45	0.7540	43,239
1948	41,540.00	75.00	1.33	1,243.08	19.01	0.7465	69,774
1949	33,113.88	75.00	1.33	990.93	19.58	0.7389	55,055
1950	25,493.11	75.00	1.33	762.88	20.16	0.7312	41,941
1951	19,922.56	75.00	1.33	596.18	20.75	0.7233	32,424
1952	39,979.30	75.00	1.33	1,196.38	21.36	0.7152	64,335
1953	36,201.58	75.00	1.33	1,083.33	21.98	0.7069	57,582
1954	52,606.24	75.00	1.33	1,574.24	22.60	0.6987	82,697
1955	86,837.42	75.00	1.33	2,598.61	23.24	0.6901	134,840
1956	82,631.65	75.00	1.33	2,472.75	23.89	0.6815	126,700
1957	65,397.50	75.00	1.33	1,957.02	24.55	0.6727	98,980
1958	65,247.72	75.00	1.33	1,952.54	25.22	0.6637	97,440
1959	90,676.10	75.00	1.33	2,713.48	25.89	0.6548	133,593
1960	72,571.58	75.00	1.33	2,171.70	26.58	0.6456	105,417
1961	149,332.20	75.00	1.33	4,468.77	27.28	0.6363	213,785
1962	119,088.83	75.00	1.33	3,563.73	27.98	0.6269	167,986
1963	130,762.95	75.00	1.33	3,913.08	28.70	0.6173	181,629

## ACCOUNT 333 SERVICES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUI	ED DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIV	OR CURVE IOWA	75-R3					
NET SA	LVAGE PERCENT	-125					
1964	104,834.50	75.00	1.33	3,137.17	29.42	0.6077	143.350
1965	198,939.60	75.00	1.33	5,953.27	30.15	0,5980	267,673
1966	104,927.74	75.00	1.33	3,139.96	30.89	0.5881	138,850
1967	201,898.09	75.00	1.33	6,041.80	31.64	0.5781	262,628
1968	141,709.00	75.00	1.33	4,240.64	32.39	0.5681	181,146
1969	141,892.49	75.00	1.33	4,246.13	33.15	0.5580	178,146
1970	152,754.16	75.00	1.33	4,571.17	33.92	0.5477	188,253
1971	183,307.42	75.00	1.33	5.485.47	34.70	0.5373	221.617
1972	135,127.74	75.00	1.33	4,043.70	35.49	0.5268	160,167
1973	253,079.25	75.00	1.33	7,573.40	36.28	0.5163	293,979
1974	133,555.19	75.00	1.33	3,996.64	37.08	0.5056	151,932
1975	138,675.75	75.00	1.33	4,149.87	37.88	0.4949	154,428
1976	179,837.94	75.00	1.33	5,381,65	38.70	0.4840	195,844
1977	266,932.73	75.00	1.33	7,987,96	39.52	0.4731	284,125
1978	283,286.16	75.00	1.33	8.477.34	40.34	0.4621	294,559
1979	420,457.95	75.00	1.33	12,582,20	41.18	0.4509	426,593
1980	356,377,96	75.00	1.33	10,664,61	42.02	0.4397	352,598
1981	365,341,72	75.00	1.33	10,932,85	42.86	0.4285	352,260
1982	341,234,86	75.00	1.33	10,211,45	43.72	0.4171	320,217
1983	446.265.73	75.00	1.33	13.354.50	44.57	0 4057	407 393
1984	437.555.84	75.00	1.33	13,093 86	45 44	0 3941	388 021
1985	523.322.33	75.00	1,33	15,660 42	46 31	0 3825	450 420
1986	655,018,61	75.00	1.33	19,601,43	47.18	0.3709	546.674
1987	736,340,51	75.00	1.33	22.034.99	48.07	0 3591	594,895
1988	753,653,93	75.00	1.33	22,553.09	48 95	0 3473	588 975
1989	768,475,72	75.00	1,33	22 996 64	49 85	0 3353	579 809
1990	705,434,92	75.00	1 33	21,140,06	50 74	0.3235	514 149
1991	813.720.84	75.00	1.33	24,350,60	51 65	0.3113	570 005
1992	1,052,016,10	75.00	1.33	31,481,58	52 56	0 2992	708,217
1993	943.693.09	75.00	1.33	28,240,02	53 47	0 2871	609 538
1994	1,216,913,07	75.00	1.33	36.416.12	54.39	0 2748	752 417
1995	1.085.284.09	75.00	1,33	32,477 13	55 31	0 2625	641 069
1996	1,010,705,62	75.00	1,33	30,245 37	56 24	0 2501	568 818
1997	995,660,09	75 00	1 22	29 795 13	57 17	0.2377	532 571
1998	966,154,18	75.00	1.33	28 912 16	58 11	0.2257	489 550
1999	1.275.657.72	75 00	1 33	38 174 06	59 05	0.2202	610 412
2000	1,479,877 35	75 00	1 33	44 285 33	59 99	0.2001	666 378
2001	2 478 106 40	75 00	1 33	74 157 33	60 94	0.1875	1 045 284
2002	1,219,597 76	75.00	1.33	36.496.46	61 RQ	0 1748	179 KKP
2003	1,283,633,57	75 00	1 22	38 410 72	62.00	0,1601	468 360
2004	795 306 57	75 00	1 33	20,712.73 23 700 EE	42.04 43°00	0.1021	200,200
2005	1 038 162 28	75 00	1 22	31 067 01	63.00 64 76	0.1265	207,217 310 012
2006	1,185,394.77	75.00	1.33	35,472 94	65 73	0.1236	320 KEB
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#### ACCOUNT 333 SERVICES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIV	OR CURVE IOWA	75-R3					
NET SA	LVAGE PERCENT	-125					
2007	1,431,666.78	75.00	1.33	42,842.63	66.69	0.1108	356,915
2008	1,908,499.59	75.00	1.33	57,111.85	67.66	0.0979	420,266
2009	1,407,263.13	75.00	1.33	42,112.35	68.63	0.0849	268,917
2010	1,594,480.24	75.00	1.33	47,714.82	69.61	0.0719	257,839
2011	1,322,938.32	75.00	1.33	39,588.93	70.58	0.0589	175,412
2012	1,586,738.98	75.00	1.33	47,483.16	71.56	0.0459	163,763
2013	1,792,454.35	75.00	1.33	53,639.20	72.54	0.0328	132,283
2014	2,613,667.53	75.00	1.33	78,214.00	73.52	0.0197	116,027
2015	4,618,862.34	75.00	1.33	138,219.46	74.51	0.0065	67,863
	47,693,124.76		1	,427,216.71			21,969,400

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.99

### ACCOUNT 334.10 METERS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE. IOWA	22-R3					
NET SALV	AGE PERCENT.	0					
		Ū					
1935	201.08	22.00				1.0000	201
1937	1.94	22.00				1.0000	2
1939	35.48	22.00				1.0000	35
1942	8.43	22.00				1.0000	8
1943	27.25	22.00				1.0000	27
1945	72.22	22.00				1.0000	72
1946	80.10	22.00				1.0000	80
1947	137.12	22.00				1.0000	137
1948	88.53	22.00				1.0000	89
1949	321.78	22.00				1.0000	322
1950	192.60	22.00				1.0000	193
1951	8,103.86	22.00				1.0000	8.104
1952	128.96	22.00				1.0000	129
1954	48.09	22.00				1,0000	48
1958	129.22	22.00				1.0000	129
1959	657.71	22.00				1.0000	658
1961	148.80	22.00				1.0000	149
1962	62.00	22.00				1.0000	62
1964	14,512.87	22.00				1.0000	14.513
1965	143.18	22.00				1.0000	143
1966	86.00	22.00				1.0000	86
1968	467.70	22.00				1.0000	468
1969	267.07	22.00				1.0000	267
1970	12,053.09	22.00				1.0000	12.053
1971	352.00	22.00				1.0000	352
1972	425,14	22.00				1.0000	425
1973	1,138.31	22.00				1.0000	1,138
1974	96.21	22.00				1.0000	-,
1975	10.875.19	22.00				1.0000	10.875
1976	3,447.85	22.00				1.0000	3,448
1977	5,709,49	22.00				1.0000	5,709
1978	4,125,71	22.00				1.0000	4,126
1979	2,193.67	22.00	4.55	99.81	0.18	0.9918	2,176
1980	2,567.13	22.00	4.55	116.80	0.40	0.9818	2,520
1981	2,488,18	22.00	4.55	113.21	0.64	0.9709	2,416
1982	3,812,35	22.00	4.55	173.46	0.88	0.9600	3,660
1983	4,166,49	22.00	4.55	189 58	1 14	0 9482	3 951
1984	1,089.11	22.00	4.55	49.55	1.39	0.9368	1.020
1985	676.74	22.00	4.55	30.79	1.65	0.9250	±,020 626
1986	13,406,56	22.00	4.55	610.00	1,91	0.9132	12.247
1987	7.746.93	22.00	4.55	352 49	2.17	0.9014	
1988	3,203,85	22 00	4 55	145 78	2 44	0 8891	2 849
1989	146,967 06	22.00	4.55	6.687.00		0.8759	128 730
	,			5,007.00			

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#### ACCOUNT 334.10 METERS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVI NET S	IVOR CURVE IOWA SALVAGE PERCENT	22-R3 0					
1990	236,734.55	22,00	4.55	10,771.42	3.05	0.8614	203,914
1991	176,401.70	22.00	4.55	8,026.28	3.40	0.8455	149,139
1992	290,676.78	22.00	4.55	13,225.79	3.78	0.8282	240,733
1993	569,172.27	22.00	4.55	25,897.34	4.21	0.8086	460,255
1994	328,086.54	22.00	4.55	14,927.94	4.68	0.7873	258,293
1995	466,929.57	22.00	4.55	21,245.30	5.19	0.7641	356,776
1996	497,169.01	22.00	4.55	22,621.19	5.75	0.7386	367,229
1997	860,179.65	22.00	4.55	39,138.17	6.34	0.7118	612,293
1998	340,776.83	22.00	4.55	15,505.35	6.98	0.6827	232,659
1999	509,918.58	22.00	4.55	23,201.30	7.65	0.6523	332,605
2000	613,600.82	22.00	4.55	27,918.84	8.35	0.6205	380,709
2001	1,550,976.92	22.00	4.55	70,569.45	9.08	0.5873	910,842
2002	514,089.43	22.00	4.55	23,391.07	9.83	0.5532	284,384
2003	745,891.32	22.00	4.55	33,938.06	10.62	0.5173	385,827
2004	140,435.76	22.00	4.55	6,389.83	11.42	0.4809	67,537
2005	250,380.24	22.00	4.55	11,392.30	12.25	0.4432	110,964
2006	482,095.74	22.00	4.55	21,935.36	13.10	0.4046	195,032
2007	366,464.31	22.00	4.55	16,674.13	13.98	0.3646	133,595
2008	718,796.01	22.00	4.55	32,705.22	14.87	0.3241	232,955
2009	971,722.01	22.00	4.55	44,213.35	15.78	0.2827	274,735
2010	853,101.03	22.00	4.55	38,816.10	16.70	0.2409	205,521
2011	466,248.78	22.00	4.55	21,214.32	17.64	0.1982	92,401
2012	656,605.90	22.00	4.55	29,875.57	18.59	0.1550	101,774
2013	614,270.28	22.00	4.55	27,949.30	19.56	0.1109	68,129
2014	1,630,353.34	22.00	4.55	74,181.08	20.53	0.0668	108,940
2015	917,549.70	22.00	4.55	41,748.51	21.51	0.0223	20,434
	16,021,090.12			726,041.04			7,018,993

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 4.53

#### ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE IOWA	31-L2.5					
NET SALVA	AGE PERCENT	- 5					
1930	14.49	31.00	3.23	0.49	0.69	0.9777	15
1940	7.41	31.00	3.23	0.25	2.27	0.9268	7
1948	0.29	31.00	3.23	0.01	3.64	0.8826	
1951	82.55	31.00	3.23	2.80	4.08	0.8684	75
1952	773.19	31.00	3.23	26.22	4.22	0.8639	701
1953	1,124.89	31.00	3.23	38.15	4.36	0.8594	1,015
1954	598.19	31.00	3.23	20.29	4.51	0.8545	537
1955	927.46	31.00	3.23	31.45	4.66	0.8497	827
1956	1,040.22	31.00	3.23	35.28	4.81	0.8448	923
1957	1,120.32	31.00	3.23	38.00	4.96	0.8400	988
1958	974.52	31.00	3.23	33.05	5.12	0.8348	854
1959	5,235.88	31.00	3.23	177.57	5.29	0.8294	4,559
1960	413.75	31.00	3.23	14.03	5.47	0.8236	358
1961	516.82	31.00	3.23	17.53	5.64	0.8181	444
1962	867.54	31.00	3.23	29,42	5.83	0.8119	740
1963	438.73	31.00	3.23	14.88	6.02	0.8058	371
1964	304.86	31.00	3.23	10.34	6.21	0.7997	256
1965	1,167,72	31.00	3.23	39.60	6.42	0.7929	972
1966	353.31	31.00	3.23	11.98	6.62	0.7865	292
1967	876.71	31.00	3.23	29.73	6.84	0.7794	717
1968	3,098.03	31.00	3.23	105.07	7.06	0.7723	2,512
1969	4,601,92	31.00	3.23	156.07	7.28	0.7652	3,697
1970	3,880.53	31.00	3.23	131.61	7.51	0.7577	3.087
1971	6,280,21	31.00	3.23	212.99	7.74	0.7503	4,948
1972	2.898.21	31.00	3.23	98.29	7.98	0.7426	2,260
1973	6,410,56	31.00	3.23	217.41	8.22	0.7348	4,946
1974	3,245,08	31.00	3.23	110.06	8.46	0.7271	2,477
1975	43,129,63	31.00	3.23	1.462.74	8.70	0.7194	32,577
1976	11,973,97	31.00	3 23	406 10	8.94	0.7116	8,947
1977	7,009,00	31 00	3 23	237 71	917	0 7042	5,182
1978	7 293 77	31 00	3 23	247 37	940	0 6968	5 336
1979	4 782 32	31 00	2.20 2.02	162 19	9 62	0.6900	3 463
1980	5 368 66	31 00	2.20	182 08	9 83	0 6829	3 850
1091	9,500.00 RE 00	31 00	3 73	2 9 9 9	10.03	0.6765	5,050
1007	17 /07 11	31 00	2.22	AEE 20	10.03	0.6700	9 4 4 6
1003	10,427.11 ACA 77	31 00	3.23 3.13	15 76	10.23	0.0700	374
100/	404.77 E 204.72	31.00	גג. גר ר	170 73	10.42	0.6591	3 657
1985	),204./J 2 975 5/	31.00	J.2J J.7J	1/J.2J 07 EJ	10.79	0 6519	1 969
1000	2,0/3.34 3 350 79	31 00	ມ. <u>ພ</u> ິມ ສູ່ສູງ	97.92 113 EA	10./2	0.0019	1,200 0 070
1007	2,200./3 2 EC7 24	31 00	∠ 	113.04 07 75	LU.90 11 10	0.0400	2,212 1 727
1000		31 00	3.43 3.73	61.15	11 40	0,0374 0 6373	1,131
7900	1,04/.44	31 00	2.43	02.00 1 054 00	11.4U	0.0323	1,220
7303	30,784.54	21.00 21.00	3.23	1,204.33	11 01	U.0∠45 0 C1F0	24,202 E0 007
TAA0	78,729.57	31.UQ	3.23	2,670.11	тт. Ат	0.0128	50,907

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# ACCOUNT 334.80 METER VAULTS AND INSTALLATIONS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT	EXP.	ACCRUED FACTOR	DEPREC AMOUNT
SURVI	IVOR CURVE IOWA	31-L2.5	(-)	(2)	(0)	~ / /	(8)
1410 L C	MUVAGE FERCENI	- 5					
1991	55,276.74	31.00	3.23	1,874.71	12.22	0.6058	35,162
1992	96,789.55	31.00	3.23	3,282.62	12.56	0.5948	60,453
1993	154,766.36	31.00	3.23	5,248.90	12.95	0.5823	94,620
1994	115,292.25	31.00	3.23	3,910.14	13.38	0.5684	68,808
1995	169,036.47	31.00	3.23	5,732.87	13.86	0.5529	98,133
1996	109,428.43	31.00	3.23	3,711.27	14.39	0.5358	61,564
1997	289,041.88	31.00	3.23	9,802.86	14.97	0.5171	156,937
1998	194,332.14	31.00	3.23	6,590.77	15.59	0.4971	101,433
1999	207,947.01	31.00	3.23	7,052.52	16.25	0.4758	103,890
2000	137,075.63	31.00	3.23	4,648.92	16.96	0.4529	65,186
2001	714,039.00	31.00	3.23	24,216.63	17.70	0.4290	321,661
2002	159,171.02	31.00	3.23	5,398.29	18.48	0.4039	67,499
2003	279,145.17	31.00	3.23	9,467.21	19.29	0.3777	110,717
2004	189,934.47	31.00	3.23	6,441.63	20.13	0.3507	69,931
2005	647,470.00	31.00	3.23	21,958.95	21.00	0.3226	219,304
2006	529,318.60	31.00	3.23	17,951.84	21.88	0.2942	163,506
2007	752,178.25	31.00	3.23	25,510.13	22.78	0.2652	209,420
2008	704,600.04	31.00	3.23	23,896.51	23.70	0.2355	174,215
2009	1,145,664.58	31.00	3.23	38,855.21	24.63	0.2055	247,182
2010	930,305.48	31.00	3.23	31,551.31	25.58	0.1748	170,787
2011	1,015,283.79	31.00	3.23	34,433.35	26.55	0.1436	153,031
2012	1,003,672.90	31.00	3.23	34,039.57	27.52	0.1123	118,306
2013	1,376,187.96	31.00	3.23	46,673.41	28.51	0.0803	116,062
2014	4,354,508.23	31.00	3.23	147,683.15	29.50	0.0484	221,250
2015	3,823,006.84	31.00	3.23	129,657.28	30,50	0.0161	64,748
	19,425,921.26			658,830.11			3,467,583

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.39

### ACCOUNT 335 FIRE HYDRANTS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE IOWA	75-R2.5					
NET SALV	AGE PERCENT	~20					
1888	2,167.55	75.00	1.33	34.59	3.10	0.9587	2,494
1890	127.67	75.00	1.33	2.04	3.64	0.9515	146
1891	334.56	75.00	1.33	5.34	3.92	0.9477	380
1892	56.49	75.00	1.33	0.90	4.18	0.9443	64
1893	224.26	75.00	1.33	3.58	4.44	0.9408	253
1894	21.95	75.00	1.33	0.35	4.70	0.9373	25
1895	11.72	75.00	1.33	0.19	4.94	0.9341	13
1898	98,76	75.00	1.33	1.58	5.63	0.9249	110
1899	111.69	75.00	1.33	1.78	5.85	0.9220	124
1900	1,274.37	75.00	1.33	20.34	6.07	0.9191	1,405
1901	274.87	75.00	1.33	4.39	6.28	0.9163	302
1903	121.29	.75.00	1.33	1.94	6.72	0.9104	133
1905	175.57	75.00	1.33	2.80	7.16	0.9045	191
1906	106.86	75.00	1.33	1.71	7.38	0.9016	116
1907	93.52	75.00	1.33	1.49	7.60	0.8987	101
1908	107.24	75.00	1.33	1.71	7.83	0.8956	115
1911	30.37	75.00	1.33	0.48	8.52	0.8864	32
1912	370.65	75.00	1.33	5.92	8.75	0.8833	393
1913	371.23	75.00	1.33	5.92	8.99	0.8801	392
1914	91.25	75.00	1.33	1.46	9.23	0.8769	96
1915	250.71	75.00	1.33	4.00	9.47	0.8737	263
1916	295.09	75.00	1.33	4.71	9.72	0.8704	308
1917	101.69	75.00	1.33	1.62	9.96	0.8672	106
1918	2,167.36	75.00	1.33	34.59	10.22	0.8637	2,246
1919	139,48	75.00	1.33	2.23	10.47	0.8604	144
1920	457.40	75.00	1.33	7.30	10.74	0.8568	470
1921	430.69	75.00	1.33	6.87	11.01	0.8532	441
1922	29.35	75.00	1.33	0.47	11.28	0.8496	30
1923	83.50	75.00	1.33	1.33	11.56	0.8459	85
1924	2,475.76	75.00	1.33	39.51	11.84	0.8421	2,502
1925	3,560.73	75.00	1.33	56.83	12.14	0.8381	3,581
1926	215.63	75.00	1.33	3.44	12.44	0.8341	216
1927	20,352.92	75.00	1.33	324.83	12.75	0.8300	20,272
1928	2,511,88	75.00	1.33	40.09	13.07	0.8257	2,489
1929	2,182.77	75.00	1.33	34.84	13.39	0.8215	2,152
1930	2,100.74	75.00	1.33	33.53	13.73	0.8169	2,059
1931	2,217.29	75.00	1.33	35.39	14.08	0.8123	2,161
1935	5.570.74	75.00	1.33	88.91	15.57	0,7924	5,297
1936	5,540.85	75.00	1.33	88.43	15.97	0.7871	5,233
1937	2,192.53	75.00	1.33	34.99	16.39	0,7815	2,056
1938	617.05	75.00	1.33	9.85	16.81	0.7759	575
1939	3,986.81	75.00	1.33	63.63	17.25	0.7700	3,684
1940	1,592.51	75.00	1.33	25.42	17.69	0.7641	1,460
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## ACCOUNT 335 FIRE HYDRANTS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE IOWA	75-R2.5					
NET SALV	AGE PERCENT	-20					
1941	1,659.30	75.00	1.33	26.48	18.15	0.7580	1,509
1942	2,365.70	75.00	1.33	37.76	18.62	0.7517	2,134
1943	275.48	75.00	1.33	4.40	19.11	0.7452	246
1944	1,821.50	75.00	1.33	29.07	19.60	0.7387	1,615
1945	1,541.36	75.00	1.33	24.60	20.10	0.7320	1,354
1946	1,695.99	75.00	1.33	27.07	20.62	0.7251	1,476
1947	3,068.64	75.00	1.33	48.98	21.15	0.7180	2,644
1948	4,416.65	75.00	1.33	70.49	21.69	0.7108	3,767
1949	7,216.43	75.00	1.33	115.17	22.24	0.7035	6,092
1950	11,543.41	75.00	1.33	184.23	22.80	0.6960	9,641
1951	10,638.68	75.00	1.33	169.79	23.37	0.6884	8,788
1952	11,418.33	75.00	1.33	182.24	23.95	0.6807	9,327
1953	12,889.86	75.00	1.33	205.72	24.54	0.6728	10,407
1954	26,085.48	75.00	1.33	416.32	25.14	0.6648	20,810
1955	19,554.04	75.00	1.33	312.08	25.75	0.6567	15,409
1956	32,190.60	75.00	1.33	513.76	26.37	0.6484	25,047
1957	27,585.13	75.00	1.33	440.26	27.00	0.6400	21,185
1958	33,104.28	75.00	1.33	528.34	27.64	0.6315	25,085
1959	53,586.98	75.00	1.33	855.25	28.29	0.6228	40,049
1960	39,188.12	75.00	1.33	625.44	28.95	0.6140	28,874
1961	48,600.92	75.00	1.33	775.67	29.61	0.6052	35,296
1962	34,629.39	75.00	1.33	552.69	30.28	0.5963	24,778
1963	60,472.26	75.00	1.33	965.14	30.96	0.5872	42,611
1964	87,893.59	75.00	1.33	1,402.78	31.65	0.5780	60,963
1965	44,933.54	75.00	1.33	717.14	32.35	0.5687	30,663
1966	50,362.04	75.00	1.33	803.78	33.05	0.5593	33,803
1967	56,196.75	75.00	1.33	896.90	33.76	0.5499	37,081
1968	60,895.24	75.00	1.33	971.89	34.48	0.5403	39,480
1969	68,327.31	75.00	1.33	1,090.50	35.21	0.5305	43,500
1970	53,647.74	75.00	1.33	856.22	35.94	0.5208	33,528
1971	78,976.47	75.00	1.33	1,260.46	36.68	0.5109	48,422
1972	78,675.10	75.00	1.33	1,255.65	37.43	0.5009	47,293
1973	140,943.70	75.00	1.33	2,249.46	38.18	0.4909	83,032
1974	128,362.85	75.00	1.33	2,048.67	38.94	0.4808	74,060
1975	138,986.55	75.00	1.33	2,218.23	39.70	0.4707	78,500
1976	101,581.12	75.00	1.33	1,621.23	40.48	0.4603	56,106
1977	113,713.31	75.00	1.33	1,814.86	41.26	0.4499	61,387
1978	234,275.32	75.00	1.33	3,739.03	42.04	0.4395	123,548
1979	237,118.02	75.00	1.33	3,784.40	42.83	0,4289	122,048
1980	168,516.74	75.00	1.33	2,689.53	43.63	0.4183	84,583
1981	140,313.17	75.00	1.33	2,239.40	44.43	0.4076	68,630
1982	110,673.74	75.00	1.33	1,766.35	45.24	0.3968	52.698
1983	198,621.38	75.00	1.33	3,170.00	46.05	0.3860	92,001

🖄 Gannett Fleming

#### ACCOUNT 335 FIRE HYDRANTS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVI	VOR CURVE IOWA	75-R2.5					
NET S	SALVAGE PERCENT	-20					
1984	203,554,72	75.00	1.33	3,248,73	46.87	0.3751	91.617
1985	260,421.02	75.00	1.33	4,156.32	47.70	0.3640	113,752
1986	306.271.24	75.00	1.33	4,888.09	48.53	0.3529	129,711
1987	355,614.99	75.00	1.33	5,675.62	49.37	0.3417	145,829
1988	304,538.78	75.00	1.33	4,860.44	50.21	0.3305	120.791
1989	215,556.78	75.00	1.33	3,440.29	51.05	0.3193	82,600
1990	190,137.36	75.00	1.33	3,034.59	51.91	0.3079	70,245
1991	247,425.47	75.00	1.33	3,948.91	52.76	0.2965	88,043
1992	590,087.62	75.00	1.33	9,417.80	53.62	0.2851	201,860
1993	208,047.61	75.00	1.33	3,320.44	54.49	0.2735	68,274
1994	310,032.54	75.00	1.33	4,948.12	55.36	0.2619	97,426
1995	399,532.75	75.00	1.33	6,376.54	56.24	0.2501	119,922
1996	451,156.81	75.00	1.33	7,200.46	57.11	0.2385	129,137
1997	320,863.82	75.00	1.33	5,120.99	58.00	0.2267	87,276
1998	447,858.11	75.00	1.33	7,147.82	58.89	0.2148	115,440
1999	727,618.40	75.00	1.33	11,612.79	59.78	0.2029	177,187
2000	981,657.85	75.00	1.33	15,667.26	60.68	0.1909	224,914
2001	392,071.36	75.00	1.33	6,257.46	61.58	0.1789	84,184
2002	600,955.56	75.00	1.33	9,591.25	62.48	0.1669	120,381
2003	460,736.70	75.00	1.33	7,353.36	63.39	0.1548	85,586
2004	448,421.41	75.00	1.33	7,156.81	64.30	0.1427	76,772
2005	427,813.15	75.00	1.33	6,827.90	65.21	0.1305	67,011
2006	604,468.87	75.00	1.33	9,647.32	66.13	0.1183	85,789
2007	618,913.41	75.00	1.33	9,877.86	67.05	0.1060	78,726
2008	762,180.06	75.00	1.33	12,164.39	67.98	0.0936	85,608
2009	327,042.28	75.00	1.33	5,219.59	68.90	0.0813	31,918
2010	496,193.21	75.00	1.33	7,919.24	69.84	0.0688	40,966
2011	678,857.64	75.00	1.33	10,834.57	70.77	0.0564	45,945
2012	143,517.13	75.00	1.33	2,290.53	71.70	0.0440	7,578
2013	774,177.94	75.00	1.33	12,355.88	72.64	0.0315	29,236
2014	814,741.73	75.00	1.33	13,003.28	73.58	0.0189	18,508
2015	1,771,104.13	75.00	1.33	28,266.82	74.53	0.0063	13,326

18,645,378.01

297,580.22

4,609,743

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.60

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# ACCOUNT 339.11 MISCELLANEOUS INTANGIBLE PLANT - 5 YEAR SOFTWARE

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNU RATE (4)	AL ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
FULLY .	ACCRUED						
2009	205,854.93	5.00	·			1.0000	205,855
		5.00				1.0000	140,696
	346,550.55						346,551
AMORTI: SURVIVO NET SAI	ZED DR CURVE 5-SÇ LVAGE PERCENT	QUARE 0					
2011	698,531.14	5.00	20.00	139,706.23	0.50	0.9000	628,678
2012	246,282.86	5.00	20.00	49,256.57	1.50	0.7000	172,398
2013	466,740.96	5.00	20.00	93,348.19	2.50	0.5000	233,370
2014	1,793,004.79	5.00	20.00	358,600.96	3.50	0.3000	537,901
2015	/58,110./8	5.00	20.00	151,622.16	4.50	0.1000	75,811
	3,962,670.53			792,534.11			1,648,158
	4,309,221.08			792,534.11			1,994,709

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 18.39

# ACCOUNT 339.12 MISCELLANEOUS INTANGIBLE PLANT - 10 YEAR SOFTWARE

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAF (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUA RATE (4)	L ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUEI FACTOR (7)	D DEPREC AMOUNT (8)
FULL	Y ACCRUED						
2003 2005	39,355.30 821.90	10.00 10.00				1.0000 1.0000	39,355 822
	40,177.20						40,177
AMORI SURVI NET S	TIZED IVOR CURVE 10-: SALVAGE PERCENT.	SQUARE . 0					
2008 2009 2010 2011 2012 2013 2014 2015	<pre>161,895.58 981,849.61 24,967.17 14,011.94 293,853.14 534,827.58 1,217,695.41 115,324.74 3,344,425.17 3,384,602.37</pre>	10.00 10.00 10.00 10.00 10.00 10.00 10.00	10.00 10.00 10.00 10.00 10.00 10.00 10.00	16,189.56 98,184.96 2,496.72 1,401.19 29,385.31 53,482.76 121,769.54 11,532.47 334,442.51	2.50 3.50 4.50 5.50 6.50 7.50 8.50 9.50	0.7500 0.6500 0.5500 0.4500 0.3500 0.2500 0.1500 0.0500	121,422 638,202 13,732 6,305 102,849 133,707 182,654 5,766 1,204,637 1,244,814
	COMPOSITE ANNUAL	L ACCRUA	L RATE, PE	RCENT 9.88			

# ACCOUNT 339.13 MISCELLANEOUS INTANGIBLE PLANT - 20 YEAR SOFTWARE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUA	AL ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIV	OR CURVE 20-	SQUARE					
NET SA	LVAGE PERCENT.	. 0					
2006	341,269.84	20.00	5.00	17,063.49	10.50	0.4750	162.103
2007	3,086,011.29	20.00	5.00	154,300.56	11.50	0.4250	1,311,555
2008	195,997.62	20.00	5.00	9,799.88	12.50	0.3750	73,499
2009	111,741.00	20.00	5.00	5,587.05	13.50	0.3250	36,316
2010	363,488.75	20,00	5.00	18,174.44	14.50	0.2750	99,959
2011	73,374.68	20.00	5.00	3,668.73	15.50	0.2250	16,509
2012	693,615.55	20.00	5.00	34,680.78	16.50	0.1750	121,383
2013	1,549,035.16	20.00	5.00	77,451.76	17.50	0.1250	193,629
2014	714,477.19	20.00	5.00	35,723.86	18.50	0.0750	53,586
	7,129,011.08			356,450.55			2,068,539

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 5.00

# ACCOUNT 339.14 MISCELLANEOUS INTANGIBLE PLANT - FULLY DEPRECIATED

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUA RATE (4)	AL ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIVC NET SAL	R CURVE 15- NAGE PERCENT.	SQUARE . 0					
1977 1999	32,976.12 15,500.00	15.00 15.00				1.0000 1.0000	32,976 15,500
	48,476.12						48,476

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 0.00

### ACCOUNT 340.10 OFFICE FURNITURE AND EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	– – ANNU	AL ACCRUAL		ACCRUE	D DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FULLY	ACCRUED						
1930	37.62	20.00				1.0000	38
1931	138.00	20.00				1.0000	138
1939	155.67	20.00				1.0000	156
1942	394.65	20.00				1.0000	395
1949	324.14	20.00				1.0000	324
1952	144.92	20.00				1.0000	145
1955	1,068.71	20.00				1.0000	1,069
1958	11.21	20.00				1.0000	11
1959	360.76	20.00				1.0000	361
1962	459.18	20.00				1.0000	459
1963	5,550.42	20.00				1.0000	5,550
1964	80.55	20.00				1.0000	81
1965	1,023.35	20.00				1.0000	1,023
1966	722.39	20.00				1.0000	722
1967	1,427.25	20.00				1.0000	1,427
1968	75.00	20.00				1.0000	. 75
1970	207.10	20.00				1.0000	207
1971	587.83	20.00				1.0000	588
1972	162.00	20.00				1.0000	162
1973	1,485.89	20.00				1.0000	1,486
1974	1,198.76	20.00				1.0000	1,199
1976	194.04	20.00				1.0000	194
1977	952.54	20.00				1.0000	953
1978	5,450.33	20.00				1.0000	5,450
1979	4,903.70	20.00				1.0000	4,904
1980	6,023.61	20.00				1.0000	6,024
1981	3,330.32	20.00				1.0000	3,330
1982	15,704.68	20.00				1.0000	15,705
1983	9,328.56	20.00				1.0000	9,329
1984	7,435.58	20,00				1.0000	7,436
1985	21,230.11	20.00				1.0000	21,230
1986	5,642.90	20.00				1.0000	5.643
1987	7,351.81	20.00				1.0000	7,352
1988	12,959.84	20.00				1.0000	12,960
1989	3,492.45	20.00				1.0000	3,492
1990	39,843.07	20.00				1.0000	39,843
1991	11,216.45	20.00				1.0000	11,216
1992	15,447.30	20.00				1.0000	15.447
1993	43,488.28	20.00				1.0000	43.488
1994	14,866.77	20.00				1.0000	14.867
1995	18,182.24	20.00				1.0000	18,182
	262,659.98						262,661

### ACCOUNT 340.10 OFFICE FURNITURE AND EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
AMORTIZ	ED						
SURVIVO	DR CURVE 20-1	SQUARE					
NET SAI	VAGE PERCENT.	. 0					
1996	65,043.99	20.00	5,00	3,252.20	0.50	0.9750	63.418
1997	33,268.76	20.00	5.00	1,663.44	1.50	0,9250	30,774
1998	31,869.41	20.00	5.00	1,593.47	2.50	0.8750	27,886
1999	18,671.25	20.00	5.00	933.56	3,50	0.8250	15,404
2000	15,935.79	20.00	5,00	796.79	4.50	0.7750	12,350
2001	3,606.70	20.00	5.00	180.34	5.50	0.7250	2,615
2002	3,460.91	20.00	5.00	173.05	6.50	0.6750	2,336
2003	10,398.61	20.00	5.00	519,93	7.50	0.6250	6,499
2004	5,192.05	20.00	5.00	259.60	8.50	0.5750	2,985
2005	34,658.70	20.00	5.00	1,732.94	9.50	0.5250	18,196
2006	5,742.46	20.00	5.00	287.12	10.50	0.4750	2,728
2007	31,434.48	20.00	5.00	1,571.72	11.50	0,4250	13,360
2008	33,409.13	20.00	5.00	1,670.46	12.50	0.3750	12,528
2009	6,406.75	20.00	5.00	320.34	13.50	0.3250	2,082
2010	23,602.87	20.00	5.00	1,180.14	14.50	0.2750	6,491
2011	17,313.41	20.00	5.00	865.67	15.50	0.2250	3,896
2012	1,211.44	20.00	5.00	60.57	16.50	0.1750	212
2013	7,334.04	20.00	5.00	366.70	17.50	0.1250	917
2014	7,380.74	20.00	5.00	369.04	18.50	0.0750	554
2015	2,683.31	20.00	5.00	134.17	19.50	0.0250	67
	358,624.80			17,931.25			225,298
	621,284.78			17,931.25			487,959

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.89

# ACCOUNT 340.20 COMPUTER AND PERIPHERAL EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAF (1)	ORIGINAL R COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP.	ACCRUED FACTOR	DEPREC AMOUNT
FULL	Y ACCRUED		(-)		(0)	( ' '	(0)
1976	314.50	5.00				1.0000	314
1985	1,144.47	5.00				1.0000	1,144
1990	1,274.56	5.00				1.0000	1,275
1991	4,609.48	5.00				1.0000	4,609
1992	2,400.00	5.00				1.0000	2,400
1993	241.33	5.00				1.0000	241
1994	9,447.93	5.00				1.0000	9,448
1995	10,739.88	5.00				1.0000	10,740
1002	25,583.21	5.00				1.0000	25,583
1000	3,111.//	5.00				1.0000	3,112
1000	340,322.34	5.00				1.0000	346,523
2000	1,152.00 7 710 20	5.00				1.0000	1,153
2000	34 960 77	5.00				1.0000	7,710
2003	48 637 02	5.00				1.0000	34,961
2003	23,623,85	5.00				1.0000	48,637
2005	42 277 69	5 00				1.0000	23,624
2006	35,487,08	5 00				1,0000	42,278
2007	150.665.87	5.00				1.0000	35,487
2008	295,838,82	5.00				1 0000	100,000 100,000
2009	66,127.85	5.00				1 0000	222,039
2010	56,830.97	5.00				1.0000	56,831
	1,168,702.78						1,168,703
AMORI	CIZED						
SURVI	VOR CURVE. 5-SQ	JUARE					
NET S	ALVAGE PERCENT.	. 0					
2011	103,703.97	5.00	20.00	20,740.79	0.50	0.9000	93, 334
2012	157,940.89	5.00	20.00	31,588.18	1.50	0.7000	110,559
2013	173,737.82	5.00	20.00	34,747.56	2.50	0.5000	86,869
2014	645,872.06	5.00	20.00	129,174.41	3.50	0.3000	193,762
2015	1,233,584.73	5.00	20.00	246,716.95	4.50	0.1000	123,358
	2,314,839.47			462,967.89			607,882
	3,483,542.25			462,967.89			1,776,585
	COMPOSITE ANNUAL	ACCRUAI	L RATE, PERG	CENT 13.29	9		

# ACCOUNT 340.30 COMPUTER SOFTWARE

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FULLY	Y ACCRUED						
1977	4,043.71	7.00				1.0000	4,044
1990	11,257.48	7.00				1.0000	11,257
1995	101,561.25	7.00				1.0000	101,561
2001	33,502.98	7.00				1.0000	33,503
2003	6,793.06	7.00				1.0000	6,793
2004	2,199.35	7.00				1.0000	2,199
2005	12,934.97	7.00				1.0000	12,935
2006	31,031.32	7.00				1.0000	31,031
2007	47,145.29	7.00				1.0000	47,145
2008	248,336.84	7.00				1.0000	248,337
	498,806.25						498,805
AMORI	TIZED						
SURVI	VOR CURVE 7-SQ	JUARE					
NET S	SALVAGE PERCENT	. 0					
2009	94,554.33	7.00	14.29	13,511.81	0.50	0.9286	87,800
2010	204,006.39	7.00	14.29	29,152.51	1.50	0.7857	160,290
2011	49,037.19	7.00	14.29	7,007.41	2.50	0.6429	31,524
2012	33,892.79	7.00	14.29	4,843.28	3.50	0.5000	16,946
2014	7,248.31	7.00	14,29	1,035.78	5.50	0.2143	1,553
2015	4,480.92	7.00	14.29	640.32	6.50	0.0714	320
	393,219.93			56,191.11			298,433
	892,026.18			56,191.11			797,238
	COMPOSITE ANNUAL	L ACCRUA	L RATE, PER	CENT 6.30			

# ACCOUNT 341.10 TRANSPORTATION EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR	CURVE IOWA	10-S1					
NET SALV	AGE PERCENT	+10					
1992	622.63	10.00				1.0000	560
1996	4,086.85	10.00	10.00	367.82	0.14	0.9860	3,627
1997	1,190.65	10.00	10.00	107.16	0.40	0.9600	1,029
1998	51,358.07	10.00	10.00	4,622.23	0.68	0.9320	43,079
2000	42,318.47	10.00	10.00	3,808.66	1.27	0.8730	33,250
2001	78,786.00	10.00	10.00	7,090.74	1.58	0.8420	59,704
2004	7,504.00	10.00	10.00	675.36	2.62	0.7380	4,984
2006	2,984.94	10.00	10.00	268.64	3.42	0.6580	1,768
2007	4,074.87	10.00	10.00	366.74	3.87	0.6130	2,248
2008	207,201.04	10.00	10.00	18,648.09	4.36	0.5640	105,175
2009	167,937.80	10.00	10.00	15,114.40	4.90	0.5100	77,083
2010	372,179.85	10.00	10.00	33,496.19	5.48	0.4520	151,403
2011	477,657.59	10.00	10.00	42,989.18	6.13	0.3870	166,368
2012	738,962.70	10.00	10.00	66,506.64	6.86	0.3140	208,831
2013	424,281.78	10.00	10.00	38,185.36	7.66	0.2340	89,354
2014	571,216.86	10.00	10.00	51,409.52	8.54	0.1460	75,058
2015	493,597.93	10.00	10.00	44,423.81	9.50	0.0500	22,212

3,645,962.03

328,080.54

1,045,733

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 9.00

# ACCOUNT 341.20 TRANSPORTATION EQUIPMENT - FULLY DEPRECIATED

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	– – ANNUA	AL ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FULLY	ACCRUED						
2003	74,067.14					1.0000	74,067
2007	151,054.37					1.0000	151,054
2008	2,532.54					1.0000	2,533
	227,654.05						227,654

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 0.00

#### ACCOUNT 342 STORES EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	– – ANNUA	L ACCRUAL		ACCRUED	DEPREC
YEAF	R COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FULL	Y ACCRUED						
1959	70.44	25.00				1.0000	70
1964	302.94	25.00				1.0000	303
1967	339.69	25.00				1.0000	340
1968	491.91	25.00				1.0000	492
1970	68.80	25.00				1.0000	69
1972	1,435.38	25.00				1.0000	1,435
1977	279.86	25.00				1.0000	280
1978	245.58	25.00				1.0000	246
1979	729.77	25.00				1.0000	730
1980	862.20	25.00				1.0000	862
1982	1,033.92	25.00				1.0000	1,034
1987	105.25	25.00				1.0000	105
1989	20,059.36	25.00				1.0000	20,059
1990	379.59	25.00				1.0000	380
	26,404.69						26,405
AMOR'	TIZED						
NET O	IVUK CUKVE 25-5 Entunce percent	QUARE					
IVEL C	SALVAGE PERCENT	U					
1991	3,648.34	25.00	4.00	145.93	0.50	0.9800	3,575
1992	325.91	25.00	4.00	13.04	1.50	0.9400	306
1995	4,464.12	25.00	4.00	178.56	4.50	0.8200	3,661
1997	4,005.29	25.00	4.00	160.21	6.50	0.7400	2,964
2001	8,203.72	25.00	4.00	328.15	10.50	0.5800	4,758
2008	2,117.58	25.00	4.00	84.70	17.50	0.3000	635
	22,764.96			910.59			15,899
	49,169.65			910.59			42,304
	COMPOSITE ANNUAL	ACCRUAI	RATE, PE	RCENT 1.85	;		

### ACCOUNT 343 TOOLS, SHOP AND GARAGE EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNU	AL ACCRUAL		ACCRUE	D DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FULLY	ACCRUED						
1937	17.83	25.00				1.0000	18
1940	36.73	25.00				1.0000	37
1948	202.80	25.00				1.0000	203
1951	194.58	25.00				1.0000	195
1964	458.65	25.00				1.0000	459
1965	178.16	25.00				1.0000	178
1966	591.22	25.00				1.0000	591
1967	696.47	25.00				1.0000	696
1968	148.29	25.00				1.0000	148
1970	1,200.00	25.00				1.0000	1,200
1971	1,230.14	25.00				1.0000	1,230
1972	3,662.71	25.00				1.0000	3,663
1973	1,736.71	25.00				1.0000	1,737
1974	3,128.15	25.00				1.0000	3,128
1976	483.75	25.00				1.0000	484
1977	603.85	25.00				1.0000	604
1978	2,775.37	25.00				1.0000	2,775
1979	3,433.94	25.00				1.0000	3,434
1980	4,317.31	25.00				1.0000	4,317
1981	584.12	25.00				1.0000	584
1982	9,748.32	25.00				1.0000	9,748
1983	12,120.94	25.00				1.0000	12,121
1984	10,713.02	25.00				1.0000	10,713
1985	30,651.14	25.00				1.0000	30,651
1986	21,588.17	25.00				1.0000	21,588
1987	19,819.10	25.00				1.0000	19,819
1988	15,641.00	25.00				1.0000	15,641
1989	12,655.73	25.00				1.0000	12,656
1990	39,855.04	25.00				1.0000	39,855
	198,473.24						198,473
AMORTI	IZED						
SURVIN	JOR CURVE 25-9	SQUARE					
NET SA	ALVAGE PERCENT.	. 0					
1991	30,715.28	25.00	4.00	1,228.61	0.50	0.9800	30,101
1992	37,520.63	25.00	4.00	1,500.83	1.50	0.9400	35,269
1993	69,866.47	25.00	4.00	2,794.66	2.50	0.9000	62,880
1994	55,239.57	25.00	4.00	2,209.58	3.50	0.8600	47,506
1995	42,590.71	25.00	4.00	1,703.63	4.50	0.8200	34,924
1996	53,576.86	25.00	4.00	2,143.07	5.50	0.7800	41,790
1997	69,415.45	25.00	4.00	2,776.62	6.50	0.7400	51,367



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### ACCOUNT 343 TOOLS, SHOP AND GARAGE EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
AMORT	IZED						
SURVI	VOR CURVE., 25-8	SQUARE					
NET S	ALVAGE PERCENT.	. 0					
1998	50,399,21	25.00	4.00	2.015.97	7.50	0.7000	35.279
1999	69,049,26	25.00	4.00	2.761.97	8,50	0.6600	45,573
2000	85,374.81	25.00	4.00	3.414.99	9.50	0.6200	52,932
2001	32,783.35	25.00	4.00	1,311.33	10.50	0.5800	19,014
2002	43,170.55	25.00	4.00	1,726.82	11.50	0.5400	23,312
2003	34,649.81	25.00	4.00	1,385.99	12.50	0.5000	17,325
2004	52,094.88	25.00	4.00	2,083.80	13.50	0.4600	23,964
2005	275,107.36	25.00	4.00	11,004.29	14,50	0.4200	115,545
2006	163,042.95	25.00	4.00	6,521.72	15.50	0.3800	61,956
2007	187,763.56	25.00	4.00	7,510.54	16.50	0.3400	63,840
2008	86,142.16	25.00	4.00	3,445.69	17.50	0.3000	25,843
2009	99,473.44	25.00	4.00	3,978.94	18.50	0.2600	25,863
2010	33,412.99	25.00	4.00	1,336.52	19.50	0.2200	7,351
2011	121,021.45	25.00	4.00	4,840.86	20.50	0.1800	21,784
2012	68,871.45	25.00	4.00	2,754.86	21.50	0.1400	9,642
2013	133,057.59	25.00	4.00	5,322.30	22.50	0.1000	13,306
2014	130,560.25	25.00	4.00	5,222.41	23.50	0.0600	7,834
2015	217,880.70	25.00	4.00	8,715.23	24.50	0.0200	4,358
	2,242,780.74			89,711.23			878,558
	2,441,253.98			89,711.23			1,077,031

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.67

#### ACCOUNT 344 LABORATORY EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	– – ANNUA	AL ACCRUAL		ACCRUEI	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FULLY	ACCRUED						
1958	651.70	20.00				1.0000	652
1959	1,069.95	20.00				1.0000	1,070
1970	95.00	20.00				1.0000	95
1971	44.36	20.00				1.0000	44
1972	4,031.38	20.00				1.0000	4,031
1973	339.20	20.00				1.0000	339
1974	199.66	20.00				1.0000	200
1975	1,382.43	20.00				1.0000	1,382
1976	1,132.30	20.00				1.0000	1,132
1977	674.14	20.00				1.0000	674
1978	3,343.57	20.00				1.0000	3,344
1979	2,379.76	20.00				1.0000	2,380
1980	3,390.44	20.00				1.0000	3,390
1981	8,843.57	20.00				1.0000	8,844
1982	5,631.16	20.00				1.0000	5,631
1983	3,540.17	20.00				1.0000	3,540
1984	8,990.60	20.00				1.0000	8,991
1985	21,931.17	20.00				1.0000	21,931
1986	25,428.91	20.00				1.0000	25,429
1987	14,539.54	20.00				1.0000	14,540
1988	11,349.10	20.00				1.0000	11,349
1989	7,751.88	20.00				1.0000	7,752
1990	3,531.47	20.00				1.0000	3,531
1991	5,040.20	20.00				1.0000	5,040
1992	71,812.88	20.00				1.0000	71,813
1993	8,996.21	20.00				1.0000	8,996
1994	19,018.71	20.00				1.0000	19,019
1995	29,443.86	20.00				1.0000	29,444
	264,583.32						264,583
AMORT	IZED						
SURVIV	VOR CURVE 20-5	SQUARE					
NET SA	ALVAGE PERCENT.	. 0					
1996	10,540.67	20.00	5.00	527.03	0.50	0.9750	10,277
1997	33,360.38	20.00	5.00	1,668.02	1.50	0.9250	30,858
1998	17,881.62	20.00	5.00	894.08	2.50	0.8750	15,646
1999	11,874.80	20.00	5.00	593.74	3.50	0.8250	9,797
2000	16,323.89	20.00	5.00	816.19	4.50	0.7750	12,651
2001	13,855.00	20.00	5.00	692.75	5.50	0.7250	10,045
2002	21,645.94	20.00	5.00	1,082.30	6.50	0.6750	14,611
2003	10,809.88	20.00	5.00	540.49	7.50	0.6250	6,756



# ACCOUNT 344 LABORATORY EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUA	L ACCRUAL		ACCRUED	DEPREC
YEAF	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
AMOR	FIZED						
SURV	IVOR CURVE 20-SQ	JUARE					
NET S	SALVAGE PERCENT	0					
2004	8,309.02	20.00	5.00	415.45	8.50	0.5750	4,778
2005	52,530.48	20.00	5.00	2,626.52	9.50	0.5250	27,579
2006	15,105.22	20.00	5.00	755.26	10.50	0.4750	7,175
2007	27,702.30	20.00	5.00	1,385.12	11.50	0.4250	11,773
2008	36,324.17	20.00	5.00	1,816.21	12.50	0.3750	13,622
2009	9,171.50	20.00	5.00	458.58	13.50	0.3250	2,981
2010	16,842.81	20.00	5.00	842.14	14.50	0.2750	4,632
2011	95,362.51	20.00	5.00	4,768.13	15.50	0.2250	21,457
2012	27,814.13	20.00	5.00	1,390.71	16.50	0.1750	4,867
2013	35,995.50	20.00	5.00	1,799.78	17.50	0.1250	4,499
2014	29,356.81	20.00	5.00	1,467.84	18.50	0.0750	2,202
2015	44,803.72	20.00	5.00	2,240.19	19.50	0.0250	1,120
	535,610.35			26,780.53			217,326
	800,193.67			26,780.53			481,909

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.35

#### ACCOUNT 345 POWER OPERATED EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
R COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(2)	(3)	(4)	(5)	(6)	(7)	(8)
IVOR CURVE IOWA	15-R1.5					
SALVAGE PERCENT	+20					
66,315.65	15.00	6.67	3,538.60	1.14	0.9240	49,021
857.00	15.00	6.67	45.73	1.60	0.8933	612
50,828.53	15.00	6.67	2,712.21	2.72	0.8187	33,289
31,041.75	15.00	6.67	1,656.39	3.04	0.7973	19,800
58,081.57	15.00	6.67	3,099.23	3.38	0.7747	35,995
62,457.12	15.00	6.67	3,332.71	3.76	0.7493	37,441
4,566.00	15.00	6.67	243.64	4.16	0.7227	2,640
39,511.11	15.00	6.67	2,108.31	4.59	0.6940	21,937
47,215.18	15.00	6.67	2,519.40	5.06	0.6627	25,030
123,921.98	15.00	6.67	6,612.48	5.57	0.6287	62,325
16,682.57	15.00	6.67	890.18	6.10	0.5933	7,919
378,887.54	15,00	6.67	20,217.44	6.68	0.5547	168,126
85,167.52	15.00	6.67	4,544.54	7.28	0.5147	35,067
231,012.14	15.00	6.67	12,326.81	7.91	0.4727	87,354
65,511.45	15.00	6.67	3,495.69	9.26	0.3827	20,055
176,232.09	15.00	6.67	9,403.74	9.97	0.3353	47,277
21,127.45	15.00	6.67	1,127.36	10.70	0.2867	4,845
205,568.12	15.00	6.67	10,969.11	11.44	0.2373	39,030
173,859.38	15.00	6.67	9,277.14	12.21	0.1860	25,870
324,578.62	15.00	6.67	17,319.52	12.98	0.1347	34,969
253,098.18	15.00	6.67	13,505.32	13.78	0.0813	16,468
15,185.02	15.00	6.67	810.27	14.59	0.0273	332
2,431,705.97			129,755.82			775,402
	ORIGINAL R COST (2) IVOR CURVE IOWA SALVAGE PERCENT 66,315.65 857.00 50,828.53 31,041.75 58,081.57 62,457.12 4,566.00 39,511.11 47,215.18 123,921.98 16,682.57 378,887.54 85,167.52 231,012.14 65,511.45 176,232.09 21,127.45 205,568.12 173,859.38 324,578.62 253,098.18 15,185.02 2,431,705.97	ORIGINAL AVG. R COST LIFE (2) (3) IVOR CURVE IOWA 15-R1.5 SALVAGE PERCENT +20 66,315.65 15.00 857.00 15.00 50,828.53 15.00 31,041.75 15.00 62,457.12 15.00 4,566.00 15.00 39,511.11 15.00 47,215.18 15.00 123,921.98 15.00 16,682.57 15.00 378,887.54 15.00 16,682.57 15.00 378,887.54 15.00 16,511.45 15.00 176,232.09 15.00 21,127.45 15.00 173,859.38 15.00 324,578.62 15.00 253,098.18 15.00 2,431,705.97	ORIGINAL AVGANNUAL R COST LIFE RATE (2) (3) (4) IVOR CURVE IOWA 15-R1.5 SALVAGE PERCENT +20 66,315.65 15.00 6.67 857.00 15.00 6.67 50,828.53 15.00 6.67 31,041.75 15.00 6.67 62,457.12 15.00 6.67 4,566.00 15.00 6.67 123,921.98 15.00 6.67 123,921.98 15.00 6.67 16,682.57 15.00 6.67 16,682.57 15.00 6.67 231,012.14 15.00 6.67 231,012.14 15.00 6.67 176,232.09 15.00 6.67 176,232.09 15.00 6.67 205,568.12 15.00 6.67 173,859.38 15.00 6.67 324,578.62 15.00 6.67 2,431,705.97	ORIGINAL         AVG.        ANNUAL         ACCRUAL           R         COST         LIFE         RATE         AMOUNT           (2)         (3)         (4)         (5)           IVOR CURVE         IOWA         15-R1.5         SALVAGE         PERCENT         +20           66,315.65         15.00         6.67         3,538.60         857.00         15.00         6.67         45.73           50,828.53         15.00         6.67         2,712.21         31,041.75         15.00         6.67         3,099.23           62,457.12         15.00         6.67         3,332.71         4,566.00         15.00         6.67         2,108.31           47,215.18         15.00         6.67         2,108.31         47,215.18         15.00         6.67         890.18           378,887.54         15.00         6.67         890.18         378,887.54         15.00         6.67         12,326.81           65,511.45         15.00         6.67         1,2326.81         65,511.45         15.00         6.67         1,27.36           205,568.12         15.00         6.67         1,27.36         205,568.12         15.00         6.67         1,27.36           205,56	ORIGINAL         AVG.        ANNUAL ACCRUAL RATE         AMOUNT         EXP.           (2)         (3)         (4)         (5)         (6)           IVOR CURVE         IOWA         15-R1.5         5         5         5         66,315.65         15.00         6.67         3,538.60         1.14           857.00         15.00         6.67         45.73         1.60           50,828.53         15.00         6.67         2,712.21         2.72           31,041.75         15.00         6.67         3,099.23         3.38           62,457.12         15.00         6.67         2,108.31         4.59           47,215.18         15.00         6.67         2,108.31         4.59           47,215.18         15.00         6.67         2,108.31         4.59           47,215.18         15.00         6.67         2,018.31         4.59           47,215.18         15.00         6.67         2,018.31         4.59           47,215.18         15.00         6.67         2,0217.44         6.68           85,167.52         15.00         6.67         12,326.81         7.91           65,511.45         15.00         6.67         1,2326.81	ORIGINAL         AVG.        ANNUAL ACCRUAL        ACCRUED           R         COST         LIFE         RATE         AMOUNT         EXP.         FACTOR           (2)         (3)         (4)         (5)         (6)         (7)           IVOR CURVE         IOWA         15-R1.5         SALVAGE PERCENT         +20           66,315.65         15.00         6.67         3,538.60         1.14         0.9240           857.00         15.00         6.67         2,712.21         2.72         0.8187           31,041.75         15.00         6.67         1,656.39         3.04         0.7973           58,081.57         15.00         6.67         3,32.71         3.76         0.7493           4,566.00         15.00         6.67         2,108.31         4.59         0.6940           47,215.18         15.00         6.67         2,108.31         4.59         0.6287           16,682.57         15.00         6.67         20,217.44         6.68         0.5547           15,01         6.67         12,326.81         7.91         0.4727           65,511.45         15.00         6.67         12,326.81         7.91         0.4727      <

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 5.34

## ACCOUNT 346 COMMUNICATION EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST	AVG. LIFE	ANNUAL RATE	ACCRUAL AMOUNT	EXP.	ACCRUEI FACTOR	D DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FULLY	ACCRUED						
1953	4,184.22	15.00				1.0000	4,184
1963	10,697.36	15.00				1.0000	10,697
1965	193.10	15.00				1.0000	193
1970	2,139.10	15.00				1.0000	2,139
1976	2,457.43	15.00				1.0000	2,457
1982	1,118.89	15.00				1.0000	1,119
1983	4,224.00	15.00				1.0000	4,224
1986	219.00	15.00				1.0000	219
1988	474.48	15.00				1.0000	474
1989	1,695.00	15.00				1.0000	1,695
1991	3,725.50	15.00				1.0000	3,726
1992	4,422.32	15.00				1.0000	4,422
1993	27,662.44	15.00				1.0000	27,662
1994	5,177.48	15.00				1.0000	5,177
1995	29,608.01	15.00				1.0000	29,608
1996	212,078.59	15.00				1.0000	212,079
1997	33,038.43	15.00				1.0000	33,038
1998	30,980.48	15.00				1.0000	30,980
1999	5,686.67	15.00				1.0000	5,687
2000	33,297.95	15.00				1.0000	33,298
	413,080.45						413,078
AMORTI	ZED						
SURVIV	OR CURVE 15-	SQUARE					
NET SA	LVAGE PERCENT.	. 0					
2001	319,224.86	15.00	6.67	21,292.30	0.50	0.9667	308,585
2002	284,580.13	15.00	6.67	18,981.49	1.50	0.9000	256,122
2003	110,991.43	15.00	6.67	7,403.13	2.50	0.8333	92,492
2004	839,016.13	15.00	6.67	55,962.38	3.50	0.7667	643,248
2005	96,129.82	15.00	6.67	6,411.86	4.50	0.7000	67,291
2006	271,266.48	15.00	6.67	18,093.47	5.50	0.6333	171,801
2007	233,947.02	15.00	6.67	15,604.27	6.50	0.5667	132,571
2008	182,144.44	15.00	6.67	12,149.03	7.50	0.5000	91,072
2009	260,203.22	15.00	6.67	17,355.55	8.50	0.4333	112,754
2010	139,930.17	15.00	6.67	9,333.34	9.50	0.3667	51,308
2011	183,263.37	15.00	6.67	12,223.67	10.50	0.3000	54,979
2012	285,373.17	15.00	6.67	19,034.39	11.50	0.2333	66,586

#### ACCOUNT 346 COMMUNICATION EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

ORIGINAL AVG. --ANNUAL ACCRUAL----ACCRUED DEPREC.--COST LIFE RATE AMOUNT FACTOR YEAR EXP. AMOUNT (5) (1) (2) (3) (4) (6) (7) (8) AMORTIZED SURVIVOR CURVE. 15-SQUARE NET SALVAGE PERCENT.. 0 2013 379,109.34 15.00 6.67 25,286.59 12.50 0.1667 63,186 2014 593,061.08 15.00 6.67 39,557.17 13.50 0.1000 59,306 2015 181,069.88 15.00 6.67 12,077.36 14.50 0.0333 6,035 4,359,310.54 290,766.00 2,177,336 4,772,390.99 290,766.00 2,590,414

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 6.09

#### ACCOUNT 347 MISCELLANEOUS EQUIPMENT

### CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FULLY	ACCRUED						
1961	131.25	15.00				1.0000	131
1970	5,787.11	15.00				1.0000	5,787
1971	139.62	15.00				1.0000	140
1974	3,105.88	15.00				1.0000	3,106
1975	589.67	15.00				1.0000	590
1976	649.81	15.00				1.0000	650
1979	758.10	15.00				1.0000	758
1981	2,343.50	15.00				1.0000	2,344
1984	7,791.92	15.00				1.0000	7.792
1985	2,209.00	15.00				1.0000	2,209
1986	3,749.21	15.00				1.0000	3.749
1987	1,798.65	15,00				1.0000	1.799
1990	385.82	15.00				1.0000	386
1991	99.64	15.00				1.0000	100
1992	1,854.47	15.00				1.0000	1,854
1993	915.82	15.00				1,0000	916
1994	3,243.60	15.00				1.0000	3,244
1995	16,191.11	15.00				1.0000	16,191
1996	1,522.50	15.00				1.0000	1,522
1997	2,429.21	15.00				1.0000	2,429
1998	10,047.72	15.00				1.0000	10,048
1999	13,675.34	15.00				1.0000	13,675
2000	14,698.54	15.00				1.0000	14,699
	94,117.49						94,119
AMORT:	IZED						
SURVIN	VOR CURVE 15-	SQUARE					
NET S!	ALVAGE PERCENT.	. 0					
2001	16,891.51	15.00	6.67	1,126.66	0.50	0.9667	16,329 [°]
2002	13,025.31	15.00	6.67	868.79	1.50	0.9000	11,723
2003	2,571.21	15.00	6.67	171.50	2.50	0.8333	2,143
2004	39,953.03	15.00	6.67	2,664.87	3.50	0.7667	30,631
2005	82,819.43	15.00	6.67	5,524.06	4.50	0.7000	57,974
2006	55,505.66	15.00	6.67	3,702.23	5.50	0.6333	35,153
2007	61,733.30	15.00	6.67	4,117.61	6.50	0.5667	34,982
2008	84.68	15.00	6.67	5.65	7.50	0.5000	42
2010	6,852.82	15.00	6.67	457.08	9.50	0.3667	2,513
2011	24,423.03	15.00	6.67	1,629.02	10.50	0.3000	7,327
2012	56,678.59	15.00	6.67	3,780.46	11.50	0.2333	13,225

#### ACCOUNT 347 MISCELLANEOUS EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	AVG.	ANNUAL	ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
AMORTIZ	ED						
SURVIVO	OR CURVE 15-	SQUARE					
NET SAL	VAGE PERCENT.	. 0					
2013	4,482.92	15.00	6.67	299.01	12.50	0.1667	747
2014	28,064.61	15.00	6.67	1,871.91	13.50	0.1000	2,806
2015	9,040.20	15.00	6.67	602.98	14.50	0.0333	301
	402,126.30			26,821.83			215,896
	496,243.79			26,821.83			310,015

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 5.40

# ACCOUNT 348 OTHER TANGIBLE PLANT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUA RATE (4)	L ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIVO	R CURVE 20- VAGE PERCENT.	SQUARE . 0					
2001	1,011.72	20.00	5.00	50.59	5.50	0.7250	733
2004	6,665.34	20.00	5.00	333.27	8.50	0.5750	3,833
	7,677.06			383.86			4,566

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 5.00

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Case No(s). 16-0907-WW-AIR

Summary: Text Direct Testimony of John J. Spanos electronically filed by Ms. Rebekah J. Glover on behalf of Aqua Ohio, Inc.