

DOE/EIA--0167(89)

DE91 005711

# Gas Supplies of Interstate Natural Gas Pipeline Companies 1989

**Energy Information Administration**  
Office of Oil and Gas  
U. S. Department of Energy  
Washington, D.C. 20585

  
**MASTER**

**DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED**

## Contacts

The *Gas Supplies of Interstate Natural Gas Pipeline Companies, 1989* is prepared by the Office of Oil and Gas, Energy Information Administration, U. S. Department of Energy. General information from this report may be obtained from Jimmie L. Peterson (202/586-6401), Director of the Office of Oil and Gas; Diane W. Lique (202/586-6090), Director of the Reserves and Natural Gas Division; or Kendrick E. Brown, Jr. (202/586-6077), Chief of the Data Operations Branch. Specific information regarding the preparation or contents of this publication may be obtained from Rosemary Jameson (202/586-6229) or Norman Crabtree (202/586-6180).

# Contents

|  | Page |
|--|------|
| Introduction .....   | 1    |
| Overview .....   | 3    |
| Domestic Natural Gas Reserves .....  | 3    |
| Annual Production .....  | 3    |
| Reserves/Production (R/P) Ratio .....  | 3    |
| Net Revisions .....  | 3    |
| Reserve Additions .....  | 4    |
| Gross Change in Reserves .....   | 4    |
| Gross Change/Production (GC/P) Ratio .....                                   | 4    |
| Imports .....  | 4    |
| Projected Deliverability .....   | 4    |
| Distribution of Domestic Natural Gas Reserves and Production .....           | 11   |
| Domestic Natural Gas Supplies of Major Jurisdictional Companies .....        | 43   |
| Total Gas Supplies of the Jurisdictional Interstate Pipeline Companies ..... | 49   |
| Deliverability .....   | 67   |
| Pipeline Imports .....   | 87   |
| Appendices   |      |
| A. Summary of Data Collection Operations and Report Methodology .....        | 91   |
| B. Index of Jurisdictional Companies .....                                   | 103  |
| C. State Subdivisions .....  | 109  |
| D. Selected Recurring Natural Gas and Related Reports .....                  | 115  |
| Glossary .....   | 117  |

## Illustrations

|   | Page |
|---|------|
| 1. Natural Gas Reserves and Production .....                                      | 7    |
| 2. Imports .....  | 9    |
| 3. Distribution of Reserves and Production by State .....                         | 12   |
| 4. Five-Year Projected Deliverability by State .....                              | 68   |
| 5. Production and Composite Forecast of Annual Deliveries 1963 through 2009 ..... | 70   |

## Tables

|  | Page |
|--|------|
| 1. Summary of Domestic Natural Gas Reserves of the Interstate Natural Gas Pipeline Companies .....                               | 5    |
| 2. Annual Changes in Interstate Gas Reserves .....   | 5    |
| 3. Total Interstate Gas Supply, Domestic Gas Reserves, Import Contracts, and Other Supply .....                                  | 6    |
| 4. Gas Supply and Deliverability Summary: Volumes Dedicated to Interstate Pipeline Companies as of Year-End 1989 .....           | 8    |
| 5. New Reserve Additions Reported for the First Time in 1989 .....   | 10   |
| 6. Summary of Dedicated Gas Production and Reserves by Type of Gas by State .....  | 13   |
| 7. Dedicated Gas Production and Reserves by Type of Gas by State and Company .....   | 14   |
| 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 .....                         | 22   |
| 9. Domestic Gas Reserves, Production, and Purchases, Year-End 1989 .....   | 44   |
| 10. Domestic Reserves, Production, and Purchases of Major Gas Supply Companies, 1963-1989 .....                                  | 45   |
| 11. Gross Change in Reserves, Production, and Gross-Change Production (GC/P) Ratios of Major Companies .....                     | 46   |
| 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves .....                             | 50   |
| 13. Total Gas Supplies of Interstate Pipeline Companies That Purchase Their Total Gas Supply from Other Pipeline Companies ..... | 64   |
| 14. Comparisons of Composite Five-Year Deliverability Projections from Year-End Dedicated Domestic Gas Reserves .....            | 67   |
| 15. Five-Year (1990-1994) Composite Deliverability Projections .....   | 69   |
| 16. Deliverability Summaries: Estimated Annual Volumes .....   | 71   |
| 17. Composite Deliverability Projections .....   | 85   |
| 18. Pipeline Imports .....   | 88   |

# Introduction

*Gas Supplies of Interstate Natural Gas Pipeline Companies 1989* was prepared by the Reserves and Natural Gas Division, Office of Oil and Gas, Energy Information Administration (EIA). The publication provides information on the total reserves, production, and deliverability capabilities of the 74 interstate pipeline companies<sup>1</sup> required to file the Federal Energy Regulatory Commission (FERC) Form 15, "Interstate Pipeline's Annual Report of Gas Supply." This publication is the 27th in a series of annual reports on the total gas supplies of interstate pipeline companies since the inception of individual company reports to the Federal Power Commission (FPC) in 1964 for report year 1963.

This publication provides information on the interstate pipeline companies' supply of natural gas during calendar year 1989, for use by the FERC for regulatory purposes. It also provides information to other Government agencies, the natural gas industry, as well as policy makers, analysts, and consumers interested in current levels of interstate supplies of natural gas and trends over recent years.

The gas supplies of interstate pipeline companies consist of the certificated, dedicated, recoverable, salable natural gas available from domestic in-the-ground reserves; gas purchased under contracts with other interstate pipeline companies; domestically produced coal gas, liquefied natural gas (LNG), and synthetic natural gas (SNG); and imported natural gas and LNG. The domestic in-the-ground reserves consist of company-owned reserves including natural gas in underground storage, reserves dedicated to or warranted

under contracts with independent producers, and supplemental or short-term supplies purchased from independent producers and intrastate pipeline companies. To avoid duplicate reporting of domestic in-the-ground reserves, the volumes of gas under contract agreement between jurisdictional pipelines have been excluded in summarizing State and national reserves. Volumes contracted under agreements with foreign suppliers include Canada and Mexico.

On October 1, 1977, pursuant to provisions of the Department of Energy Organization Act, Public Law 95-91, 91 stat. 565 (August 4, 1977), and Executive Order No. 12009, 42 Fed. Reg. 46267 (September 15, 1977), the FPC ceased to exist, and its functions and regulatory responsibilities were transferred to the FERC, an independent commission within the Department of Energy (DOE). The EIA within DOE is responsible for collecting, compiling, and disseminating the gas supply information reported by the jurisdictional interstate pipeline companies on Form 15. A summary of the methods used for collecting, analyzing, and preparing the data is provided in Appendix A.

All volumes of natural gas in this publication are reported on a dry basis at 14.73 pounds per square inch absolute and 60 degrees Fahrenheit. A glossary of terms used in this report has been provided to assist users in understanding the data presented in the publication. Additional natural gas information sources are listed in Appendix D.

<sup>1</sup>Appendix B lists all interstate pipeline companies that were required to file 1989 gas supply information with the Federal Energy Regulatory Commission.

# Overview

## Domestic Natural Gas Reserves

Total dedicated domestic gas reserves, owned by or under contract to the interstate pipeline companies, decreased in 1989 by 11.1 trillion cubic feet, or 22.8 percent, from 48.8 trillion cubic feet at the beginning of the year to 37.7 trillion cubic feet at the end of the year (Table 1). The reader should be aware that the decrease in reserves, reported by Form 15 respondents, does not necessarily indicate a decrease in the level of proved natural gas reserves for the United States as a whole.

The 22.8 percent drop in dedicated reserves reflects a trend by some interstate pipeline companies to become transporters of natural gas. This reflects a basic shift in the structure of the natural gas industry. In past years, gas was traditionally sold by the producer to the pipeline company that sold it to a local distribution company which in turn delivered it to the ultimate consumer. Currently, the trend is increasingly for gas to be sold by the producer directly to the consumer (or to a local distribution company), resulting in less gas being dedicated to the interstate market. Pipeline companies in these cases provide transportation services only. Additionally, many of the respondents are not entering into long term contracts, and some older higher priced reserves are being released in favor of cheaper new reserves.

A 5-year tabulation shows that dedicated domestic gas reserves, reported on Form 15, decreased from 89.9 trillion cubic feet at the beginning of 1985 to 37.7 trillion cubic feet at the end of 1989, a decrease of 52.2 trillion cubic feet, or 58.1 percent (Table 2). The reported peak reserves of 198.1 trillion cubic feet occurred at year-end 1967 (Table 3). It should be noted, however, that reserves reported for 1981 and subsequent years include company-owned reserves in underground storage. Prior to report year 1981, underground storage reserves were not uniformly reported.

The EIA collects total proved domestic reserve information on Form EIA-23, "Annual Report of Domestic Oil and Gas Reserves," and publishes its findings an-

nually in *U. S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, DOE/EIA-0216. Natural gas reserves in the Lower 48 States declined by 0.5 percent to 158.2 trillion cubic feet. Total U.S. reserves declined to 167.1 trillion cubic feet.

## Annual Production

Total gas purchased and produced from dedicated domestic gas reserves in 1989 was 4.8 trillion cubic feet, down 17.2 percent from the 5.8 trillion cubic feet reported in the preceding year. A peak production level of 14.2 trillion cubic feet occurred in 1971 and 1972 (Table 3).

## Reserves/Production (R/P) Ratio

The 1989 ratio of total dedicated domestic reserves to production was 7.8, slightly below the 8.4 ratio reported for 1988 (Figure 1). The R/P ratio declined steadily throughout the first 10 years of Form 15 reports. Since 1972, the decline has been less pronounced. The R/P ratio dropped to a low of 8.2 in 1981, and then increased to 10.6 in 1986 due to the decrease in production during 1986.

## Net Revisions

Net revisions to dedicated domestic gas reserves during 1989 were -10.1 trillion cubic feet, as compared to -12.8 trillion cubic feet in 1988 (Tables 1 and 2). Revisions are attributed to production adjustments, changes in dedicated interests, and revisions to in-the-ground domestic reserve estimates of previous years made during the current report year. Revisions to purchases from interstate pipeline companies that are survey respon-

dents, revisions to import contracts, or revisions to purchases of coal gas, LNG, or SNG are not included.

## Reserve Additions

Total interstate reserve additions during 1989 were 3.9 trillion cubic feet, compared to additions of 2.2 trillion cubic feet in 1988 (Tables 1 and 2). The increase in reserve additions for 1988-89 reverses a trend of decreases since 1985. Much of the increase in reserve additions is attributed to technological advances in infill drilling, workovers, and recovery enhancements.

Reserve additions consist of new, proved, dedicated domestic reserves credited to new fields, new reservoirs, new gas purchase contracts, amendments to old gas purchase contracts, or purchase of in-place gas reserves that occurred during the report year and had not been previously reported. Reserve additions refer to domestic in-the-ground natural gas reserve additions and do not refer to interstate pipeline purchase agreements, contracts with foreign suppliers, or coal gas, LNG, or SNG purchase arrangements.

Of the 3.9 trillion cubic feet of reserve additions reported during the report year, 2.9 trillion cubic feet are attributed to new gas purchase contracts with independent producers (Table 5).

## Gross Change in Reserves

The gross change in dedicated domestic reserves is calculated at -6.3 trillion cubic feet for 1989 (Table 1).

This quantity is defined as year-end 1989 reserves plus 1989 production minus year-end 1988 reserves.

## Gross Change/Production (GC/P) Ratio

The ratio of gross change in reserves (revisions and additions) to production for 1989 was -1.3. The comparable ratio for 1988 was -1.8. A ratio less than 1 indicates a decrease in year-end reserves from the preceding year.

## Imports

Total natural gas imported by interstate pipeline companies from Canada was 0.8 trillion cubic feet, 13.5 percent of the total gas produced and purchased in 1989. Volume of Canadian and Mexican natural gas remaining under contract is 13.9 trillion cubic feet. (Figure 2 and Table 4).

## Projected Deliverability

Total contract deliveries are projected to decline from 6.8 trillion cubic feet in 1990 to 3.4 trillion cubic feet by 1994 (Table 4). This decline is driven by the projected decline in dedicated domestic reserve deliverability. Deliveries from foreign and other sources are expected to decline, but at a slower rate over the 5-year period.

**Table 1. Summary of Domestic Natural Gas Reserves of the Interstate Natural Gas Pipeline Companies**  
(Million Cubic Feet)

| Item  | Company-Owned and Long-Term Gas Purchase Contracts | Other Gas Supply <sup>a</sup> | Total Dedicated Domestic Gas Reserves |
|---|--|-------------------------------|---------------------------------------|
| (a) Total dedicated gas reserves as of December 31, 1988                      | 48,253,965   | <sup>b</sup> 537,594          | 48,791,559                            |
| (b) Net revisions to reserve estimates during 1989 <sup>c</sup>               | NA   | NA                            | -10,142,095                           |
| (c) Reserves added during 1989  | NA   | NA                            | 3,879,249                             |
| (d) Total net revisions and additions <sup>c</sup> (e) minus (a)              | -6,777,851   | 515,005                       | -6,262,846                            |
| (e) Gas reserves as of December 31, 1989 and changes during 1989 (f) plus (g) | 41,476,114   | 1,052,599                     | 42,528,713                            |
| (f) Gas purchased and produced during 1989                                    | 4,358,158  | 485,174                       | 4,843,332                             |
| (g) Total dedicated gas reserves as of December 31, 1989                      | 37,117,956   | 567,425                       | 37,685,381                            |

<sup>a</sup> Includes emergency purchases, short-term contracts, and intrastate purchases. Purchases between interstate pipelines, and purchases from foreign suppliers are excluded.

<sup>b</sup> Represents contractual volumes.

<sup>c</sup> Includes underground storage reserves.

NA Not Available.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 2. Annual Changes in Interstate Gas Reserves**  
(Billion Cubic Feet)

| Item   | 1985   | 1986   | 1987    | 1988    | 1989    |
|--|--------|--------|---------|---------|---------|
| Beginning of Year Reserves                       | 89,893 | 85,102 | 80,602  | 65,135  | 48,792  |
| Now Reserve Additions                            | 5,089  | 2,489  | 1,934   | 2,213   | 3,879   |
| Net Revisions <sup>a</sup>                       | -963   | 589    | -10,745 | -12,752 | -10,142 |
| Total Additions and Revisions <sup>b</sup>       | 4,126  | 3,078  | -8,811  | -10,539 | -6,263  |
| Annual Production                                | 8,918  | 7,578  | 6,655   | 5,804   | 4,843   |
| Year-End Reserves                                | 85,102 | 80,602 | 65,135  | 48,792  | 37,685  |
| Upward (Downward) Revisions Percent of Additions | -18.9  | 23.7   | -555.6  | -576.2  | -261.5  |

<sup>a</sup> Calculated; includes underground storage reserves.

<sup>b</sup> "Year-End Reserves" plus "Annual Production" less "Beginning of Year Reserves."

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 3. Total Interstate Gas Supply, Domestic Gas Reserves, Import Contracts, and Other Supply**  
(Trillion Cubic Feet)

| Date                   | Domestic Reserves                               |  |               |       | Import contracts |                  | Other <sup>b</sup> | Total Gas Supply | Number of Companies |
|------------------------|---|--|---------------|-------|------------------|------------------|--------------------|------------------|---------------------|
|                        | Short-Term and Emergency Purchases <sup>a</sup> | Long-Term Independent Producer Contracts | Company Owned | Total | Pipeline         | LNG              |                    |                  |                     |
| Gas Supply at Year-End |   |  |               |       |                  |                  |                    |                  |                     |
| 1963                   | --  | 165.1                                    | 23.4          | 188.5 | 9.7              | --               | --                 | 198.2            | 65                  |
| 1964                   | --  | 166.3                                    | 22.9          | 189.2 | 11.0             | --               | --                 | 200.2            | 67                  |
| 1965                   | --  | 169.1                                    | 23.0          | 192.1 | 10.8             | --               | --                 | 202.9            | 66                  |
| 1966                   | --  | 172.9                                    | 22.2          | 195.1 | 9.9              | --               | --                 | 205.0            | 69                  |
| 1967                   | --  | 175.9                                    | 22.2          | 198.1 | 10.6             | --               | --                 | 208.7            | 67                  |
| 1968                   | --  | 173.3                                    | 21.7          | 195.0 | 12.5             | --               | --                 | 207.5            | 67                  |
| 1969                   | --  | 169.0                                    | 18.6          | 187.6 | 11.9             | --               | --                 | 199.5            | 68                  |
| 1970                   | --  | 156.4                                    | 17.2          | 173.6 | 17.2             | --               | --                 | 190.8            | 68                  |
| 1971                   | 0.07  | 144.8                                    | 16.5          | 161.4 | 16.6             | --               | --                 | 178.0            | 62                  |
| 1972                   | .32   | 131.2                                    | 15.4          | 146.9 | 15.7             | 5.7              | --                 | 168.3            | 67                  |
| 1973                   | .21   | 120.9                                    | 13.2          | 134.3 | 14.8             | 8.7              | --                 | 157.8            | 67                  |
| 1974                   | .06   | 108.6                                    | 11.8          | 120.5 | 13.5             | 9.1              | --                 | 143.1            | 65                  |
| 1975                   | .01   | 95.6                                     | 11.2          | 106.8 | 12.6             | 9.4              | --                 | 128.8            | 65                  |
| 1976                   | .03   | 87.5                                     | 10.8          | 98.3  | 11.5             | 9.4              | --                 | 119.2            | 62                  |
| 1977                   | .01   | 82.6                                     | 10.3          | 92.9  | 10.7             | 12.6             | --                 | 116.2            | 61                  |
| 1978                   | <sup>c</sup> (*)                                | 83.7                                     | 10.3          | 94.0  | 10.1             | 12.4             | --                 | 116.5            | 61                  |
| 1979                   | .02   | 84.7                                     | 12.6          | 97.3  | 10.4             | 12.0             | --                 | 119.6            | 63                  |
| 1980                   | .27   | 84.5                                     | 12.3          | 97.1  | 11.3             | 8.3              | --                 | 116.7            | 63                  |
| 1981                   | 1.02  | 83.6                                     | 13.7          | 98.3  | 12.3             | 7.6              | 0.34               | 118.6            | 73                  |
| 1982                   | .66   | 84.4                                     | 13.7          | 98.7  | 11.0             | 3.3              | .61                | 113.6            | 71                  |
| 1983                   | .55   | 83.3                                     | 10.6          | 94.5  | 9.5              | 3.2              | .55                | 107.7            | 71                  |
| 1984                   | .48   | 79.9                                     | 9.5           | 89.9  | 10.7             | 3.2              | .85                | 104.6            | 74                  |
| 1985                   | .43   | 75.4                                     | 9.3           | 85.1  | 10.7             | 3.2              | .57                | 99.6             | 76                  |
| 1986                   | .65   | 73.4                                     | 6.6           | 80.6  | 11.4             | 3.2              | .84                | 96.0             | 77                  |
| 1987                   | .63   | 58.3                                     | 6.2           | 65.1  | 10.2             | --               | .87                | 76.2             | 72                  |
| 1988                   | .54   | 42.2                                     | 6.1           | 48.8  | 10.0             | --               | .75                | 59.6             | 68                  |
| 1989                   | .57   | 32.2                                     | 4.9           | 37.7  | 13.9             | --               | .86                | 52.5             | 74                  |
| Annual Production      |   |  |               |       |                  |                  |                    |                  |                     |
| 1963                   | --  | 8.5                                      | .9            | 9.4   | .4               | --               | --                 | 9.8              | 65                  |
| 1964                   | --  | 9.1                                      | .9            | 10.0  | .4               | --               | --                 | 10.4             | 67                  |
| 1965                   | --  | 9.4                                      | 1.0           | 10.4  | .4               | --               | --                 | 10.8             | 66                  |
| 1966                   | --  | 10.1                                     | 1.0           | 11.1  | .4               | --               | --                 | 11.5             | 69                  |
| 1967                   | --  | 10.8                                     | 1.0           | 11.8  | .5               | --               | --                 | 12.3             | 67                  |
| 1968                   | --  | 11.6                                     | 1.0           | 12.6  | .6               | --               | --                 | 13.2             | 67                  |
| 1969                   | --  | 12.4                                     | 1.0           | 13.4  | .7               | --               | --                 | 14.1             | 68                  |
| 1970                   | --  | 13.1                                     | 1.0           | 14.1  | .8               | --               | --                 | 14.9             | 68                  |
| 1971                   | .18   | 13.1                                     | .9            | 14.2  | .9               | --               | --                 | 15.1             | 62                  |
| 1972                   | .27   | 12.9                                     | 1.0           | 14.2  | 1.0              | --               | --                 | 15.2             | 67                  |
| 1973                   | .29   | 12.6                                     | .8            | 13.7  | 1.0              | --               | --                 | 14.7             | 67                  |
| 1974                   | .23   | 12.0                                     | .8            | 13.0  | .9               | --               | --                 | 13.9             | 65                  |
| 1975                   | .11   | 11.2                                     | .7            | 12.0  | .9               | --               | --                 | 12.9             | 65                  |
| 1976                   | .08   | 10.7                                     | .7            | 11.4  | .9               | --               | --                 | 12.3             | 62                  |
| 1977                   | .16   | 10.0                                     | .9            | 10.9  | 1.0              | .1               | --                 | 12.1             | 61                  |
| 1978                   | .10   | 10.3                                     | .6            | 11.0  | .8               | .6               | --                 | 12.4             | 61                  |
| 1979                   | .05   | 10.8                                     | .7            | 11.6  | 1.0              | .2               | --                 | 12.7             | 63                  |
| 1980                   | .03   | 10.9                                     | .7            | 11.6  | .9               | .1               | --                 | 12.6             | 63                  |
| 1981                   | .40   | 10.9                                     | .6            | 12.0  | .8               | <sup>d</sup> (*) | .02                | 12.8             | 73                  |
| 1982                   | .13   | 10.2                                     | .6            | 10.9  | .9               | <sup>d</sup> (*) | .02                | 11.8             | 71                  |
| 1983                   | .10   | 9.0                                      | .4            | 9.5   | .8               | .1               | .01                | 10.4             | 71                  |
| 1984                   | .17   | 9.9                                      | .4            | 10.4  | .8               | <sup>d</sup> (*) | .01                | 11.2             | 74                  |
| 1985                   | .23   | 8.4                                      | .3            | 8.9   | .9               | <sup>d</sup> (*) | .05                | 9.9              | 76                  |
| 1986                   | .25   | 7.1                                      | .2            | 7.6   | .7               | --               | .09                | 8.3              | 77                  |
| 1987                   | .45   | 6.0                                      | .2            | 6.7   | .8               | --               | .10                | 7.5              | 72                  |
| 1988                   | .45   | 5.2                                      | .2            | 5.8   | .9               | --               | .20                | 6.9              | 68                  |
| 1989                   | .49   | 4.2                                      | .2            | 4.8   | .8               | --               | .24                | 5.9              | 74                  |

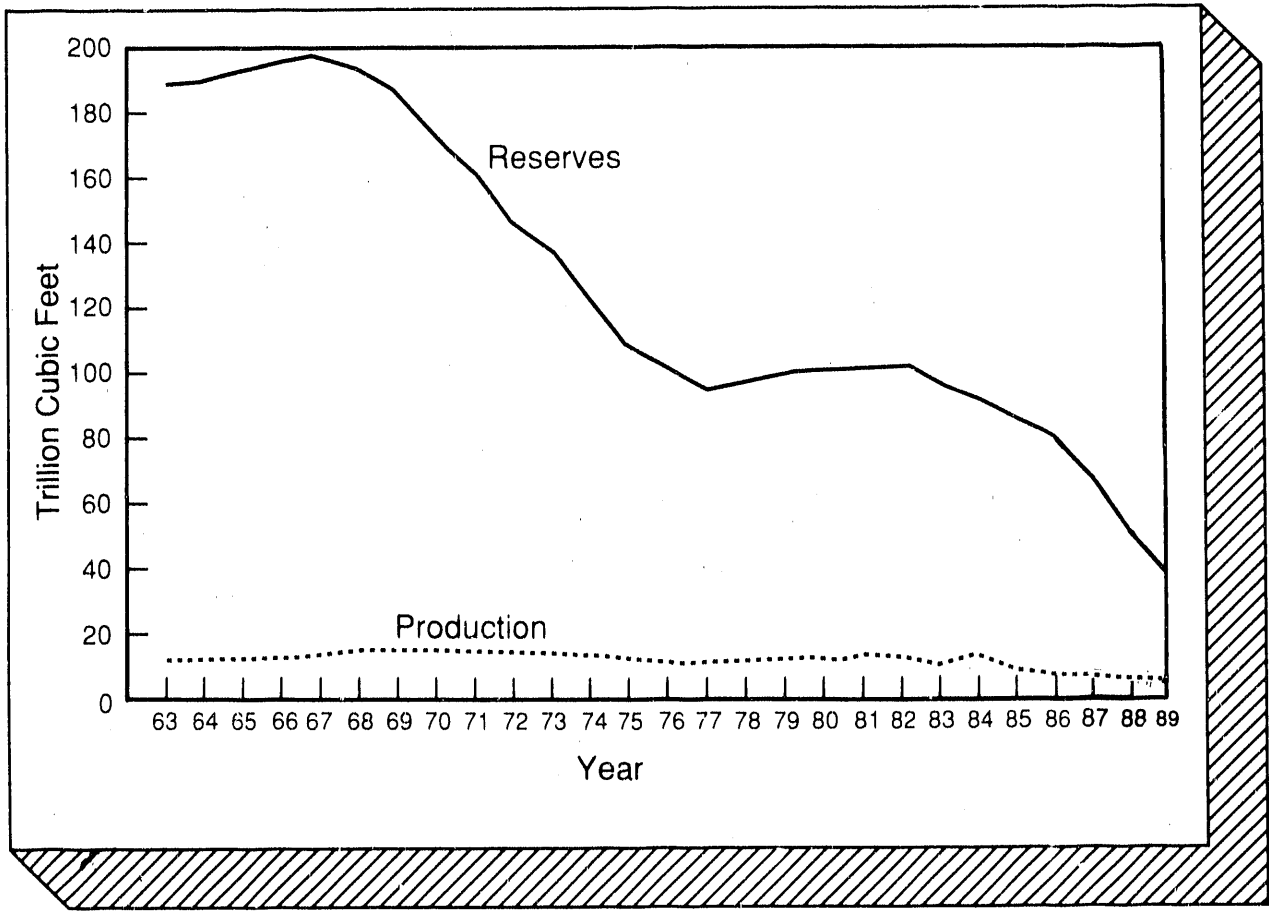
<sup>a</sup> Includes intrastate pipeline purchases.

<sup>b</sup> Includes COG, LNG, SNG, and other supply.

<sup>c</sup> Less than 0.005 trillion cubic feet.

<sup>d</sup> Less than 0.05 trillion cubic feet.

**Figure 1. Natural Gas Reserves and Production**  
(Trillion Cubic Feet)



Source: Energy Information Administration, Form FERC-15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 4. Gas Supply and Deliverability Summary: Volumes Dedicated to Interstate Pipeline Companies as of Year-End 1989**  
(Million Cubic Feet)

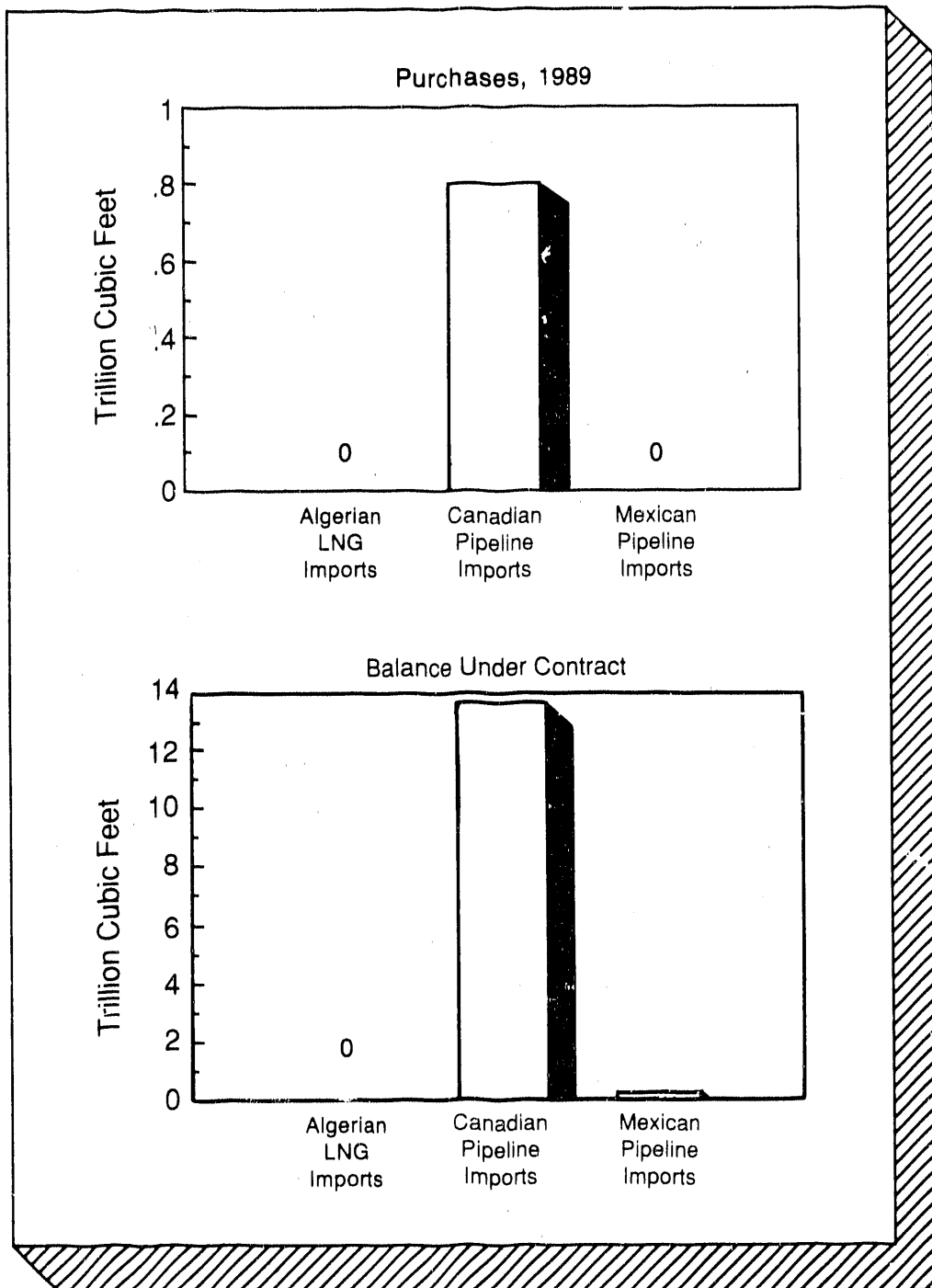
|   | Gas Supply<br>12-31-89 | Produced<br>and/or<br>Purchased | Projected Deliverability |           |           |           |           |
|---|------------------------|---------------------------------|--------------------------|-----------|-----------|-----------|-----------|
|   |                        |                                 | 1990                     | 1991      | 1992      | 1993      | 1994      |
| Domestic Gas Supply                             |                        |                                 |                          |           |           |           |           |
| Company-Owned and Long-Term                     | 37,117,956             | 4,358,158                       | 5,322,105                | 4,343,909 | 3,616,418 | 2,975,681 | 2,427,742 |
| Short-Term and Emergency Purchases <sup>a</sup> | 567,425                | 485,174                         | 221,764                  | 29,313    | 27,408    | 24,547    | 18,043    |
| Total Domestic                                  | 37,685,381             | 4,843,332                       | 5,543,869                | 4,373,222 | 3,643,826 | 3,000,228 | 2,445,785 |
| Domestic as Percent of Total                    | 71.8                   | 82.5                            | 81.9                     | 79.7      | 77.8      | 74.5      | 71.4      |
| Pipeline Imports                                |                        |                                 |                          |           |           |           |           |
| Mexican Gas                                     | 287,547                | 0                               | 0                        | 0         | 0         | 40,880    | 40,880    |
| Canadian Gas                                    | 13,649,514             | 789,622                         | 1,133,076                | 1,047,571 | 975,241   | 927,628   | 885,827   |
| Total Pipeline Imports                          | 13,937,061             | 789,622                         | 1,133,076                | 1,047,571 | 975,241   | 968,508   | 926,707   |
| Pipeline Imports as Percent of Total            | 26.6                   | 13.5                            | 16.7                     | 19.1      | 20.8      | 24.0      | 27.1      |
| LNG Imports                                     |                        |                                 |                          |           |           |           |           |
| Algerian LNG                                    | 0                      | 0                               | 0                        | 0         | 0         | 0         | 0         |
| LNG Imports as Percent of Total                 | .0                     | .0                              | .0                       | .0        | .0        | .0        | .0        |
| Other <sup>b</sup>                              |                        |                                 |                          |           |           |           |           |
| Other as Percent of Total                       | 1.6                    | 4.0                             | 1.3                      | 1.2       | 1.4       | 1.5       | 1.5       |
| Total All Sources                               | 52,485,978             | 5,869,576                       | 6,767,866                | 5,488,708 | 4,685,466 | 4,027,373 | 3,425,440 |

<sup>a</sup> Includes intrastate pipeline purchases.

<sup>b</sup> Includes coal gasification, liquefied natural gas, synthetic natural gas, and other supply.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

**Figure 2. Imports**  
(Trillion Cubic Feet)



Source: Energy Information Administration, Form FERC-15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 5. New Reserve Additions Reported for the First Time in 1989**  
(Million Cubic Feet)

| Company Name                          | Producer-Contracted Additions | Total Additions  |
|---------------------------------------|-------------------------------|------------------|
| ANR Pipeline Co                       | 21,640                        | 53,143           |
| Arkansas Oklahoma Gas Corp            | 0                             | 9,928            |
| Arkla Inc                             | 0                             | 88,602           |
| Carnegie Natural Gas Co               | 11,364                        | 11,364           |
| CNG Transmission Corp <sup>1</sup>    | 39,876                        | 43,060           |
| Colorado Interstate Gas Co            | 20                            | 15,916           |
| Columbia Gas Transmission Corp        | 218,291                       | 218,291          |
| El Paso Natural Gas Co                | 508                           | 508              |
| Florida Gas Transmission Co           | 0                             | 44,960           |
| K N Energy Inc                        | 0                             | 45,376           |
| Kentucky West Va Gas Co               | 7,066                         | 7,066            |
| Mid Louisiana Gas Co                  | 11                            | 5,631            |
| MIGC Inc                              | 0                             | 262              |
| Mississippi River Transmission Corp   | 822,339                       | 833,317          |
| Natural Gas Pipeline Co of America    | 265,140                       | 327,568          |
| Northern Natural Div InterNorth Inc   | 37,751                        | 96,346           |
| Questar Pipeline Company <sup>2</sup> | 0                             | 275              |
| Southern Natural Gas Co               | 244,290                       | 268,657          |
| Tennessee Gas Pipeline Div Tenneco    | 38,199                        | 185,852          |
| Texas Eastern Transmission Corp       | 1,061,144                     | 1,061,144        |
| Texas Gas Pipeline Corp               | 13,467                        | 13,467           |
| Texas Gas Transmission Corp           | 0                             | 40,065           |
| Transcontinental Gas Pipe Line Corp   | 118,570                       | 195,428          |
| Transwestern Pipeline Co              | 0                             | 65,019           |
| Trunkline Gas Co                      | 0                             | 9,039            |
| United Gas Pipe Line Co               | 0                             | 817              |
| Valero Interstate Transmission Co     | 0                             | 155              |
| Williams Natural Gas Co               | 15,720                        | 17,779           |
| Williston Basin Interstate Pipeline   | 0                             | 36               |
| <b>Total All Companies</b>            | <b>2,928,196</b>              | <b>3,871,871</b> |

<sup>1</sup> Formerly Consolidated Gas Transmission Corp.

<sup>2</sup> Formerly Mountain Fuel Resources Inc.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

# Distribution of Domestic Natural Gas Reserves and Production

The volume of domestic natural gas reserves owned by or dedicated to the interstate pipeline companies at year-end 1989 totaled 37.7 trillion cubic feet, including 36.2 trillion cubic feet of reserves located in 30 States and 1.4 trillion cubic feet of gas in underground storage but undesignated by State (Tables 6, 7, and 8). Production reported in 31 States totaled 4.8 trillion cubic feet.

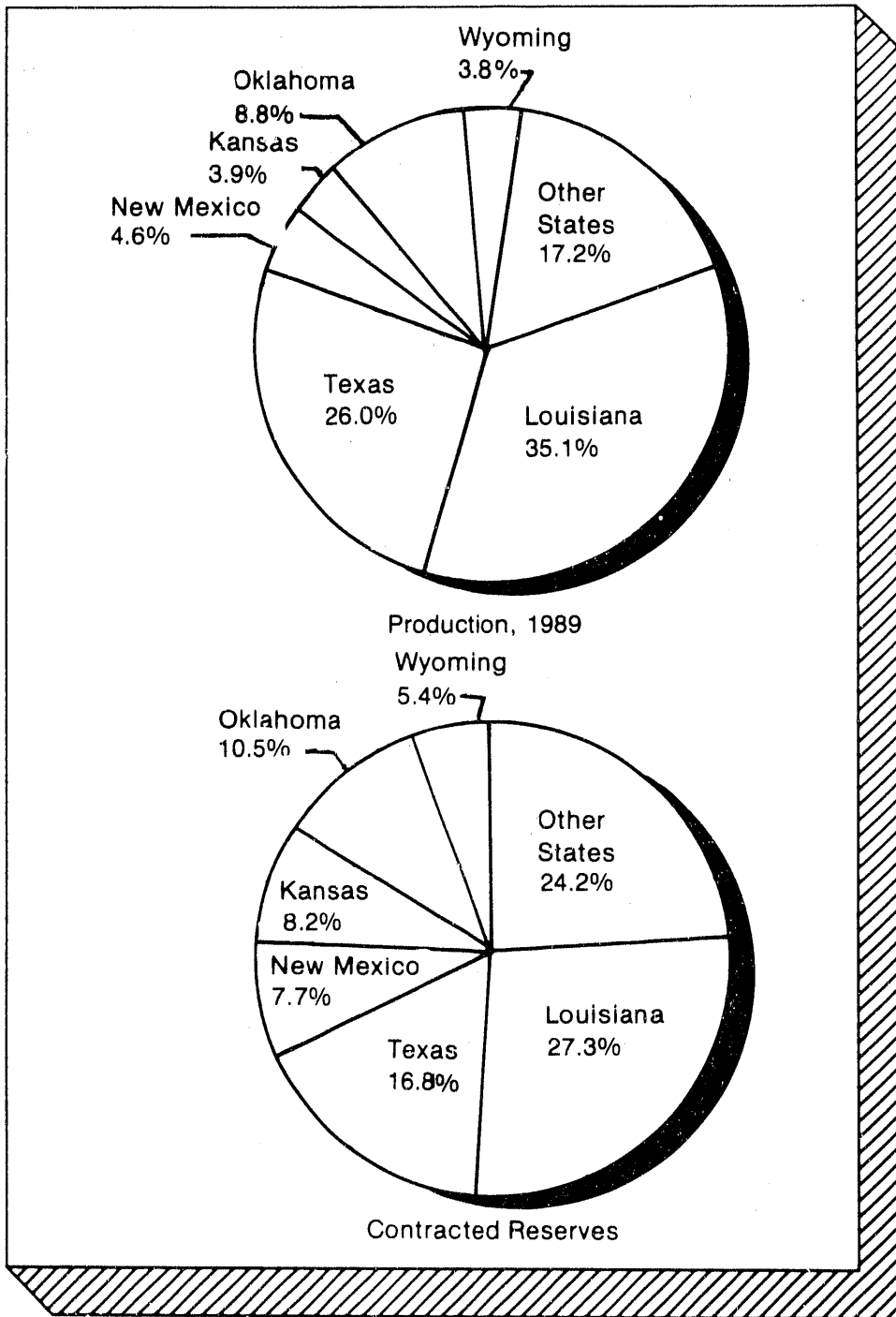
Louisiana, New Mexico, and Texas collectively accounted for 51.8 percent of the domestic in-the-ground reserves and 65.6 percent of the production reported in 1989 (Figure 3). Although the Form 15 no longer requires respondents to report natural gas reserves by FERC gas area, the traditional subdivisions of Louisiana, New Mexico, and Texas have been retained for historical continuity. The reserves for these States are

presented by State subdivision in Tables 6, 7, and 8, according to the county in which the reserves were reported to exist. Appendix C provides a ready reference that the reader can utilize to relate counties within these States to the State subdivisions appearing in Tables 6, 7, and 8.

In Tables 6 and 7, reserves are shown as **Nonassociated** and **Other**, as reported. **Nonassociated** refers to natural gas in reservoirs that do not contain significant quantities of crude oil. Reserves not explicitly reported as **Nonassociated** on the Form 15 are classified as **Other**.

The reader concerned about historical trends in reserves and production by State and by producing area within the States of Louisiana, New Mexico, and Texas will find this information in Table 8.

**Figure 3. Distribution of Reserves and Production by State**



Source: Energy Information Administration, Form FERC-15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 6. Summary of Dedicated Gas Production and Reserves by Type of Gas by State**  
(Million Cubic Feet)

| State                                    | 1989 Year-End Reserves |                |           | Production |
|--|------------------------|----------------|-----------|------------|
|  | Total                  | Non-associated | Other     |            |
| Alabama                                  | 217,364                | 212,780        | 4,584     | 34,420     |
| Arizona                                  | 93                     | 93             | 0         | 13         |
| Arkansas                                 | 1,856,292              | 1,846,805      | 9,487     | 166,752    |
| California                               | 229,942                | 0              | 229,942   | 24,509     |
| Colorado                                 | 488,593                | 362,369        | 126,224   | 42,671     |
| Florida                                  | 9,257                  | 0              | 9,257     | 1,477      |
| Illinois                                 | 2,875                  | 2,397          | 478       | 1,117      |
| Indiana                                  | 0                      | 0              | 0         | 1          |
| Kansas                                   | 3,090,449              | 3,075,967      | 14,482    | 187,778    |
| Kentucky                                 | 597,443                | 597,443        | 0         | 40,689     |
| Louisiana                                | 10,285,317             | 8,955,434      | 1,329,883 | 1,697,644  |
| Northern Louisiana                       | 1,099,590              | 998,313        | 101,277   | 124,525    |
| Southern Louisiana Onshore               | 1,831,260              | 1,699,061      | 132,199   | 242,197    |
| Southern Louisiana Warranty <sup>a</sup> | 0                      | 0              | 0         | 128,889    |
| Total Louisiana Offshore                 | 7,354,467              | 6,258,060      | 1,096,407 | 1,202,033  |
| Maryland                                 | 41,830                 | 41,830         | 0         | 83,776     |
| Massachusetts                            | 0                      | 0              | 0         | 18,255     |
| Michigan                                 | 114,111                | 114,111        | 0         | 15,996     |
| Mississippi                              | 320,137                | 312,156        | 7,981     | 110,737    |
| Missouri                                 | 13,258                 | 13,258         | 0         | 9,583      |
| Montana                                  | 439,489                | 271,011        | 168,478   | 22,078     |
| Nebraska                                 | 87,641                 | 87,641         | 0         | 320        |
| New Mexico                               | 2,898,465              | 2,520,094      | 378,371   | 221,865    |
| San Juan Basin                           | 2,086,583              | 1,995,149      | 91,434    | 95,165     |
| New Mexico Permian Basin                 | 811,882                | 524,945        | 286,937   | 126,700    |
| New York                                 | 143,112                | 143,112        | 0         | 34,746     |
| North Dakota                             | 35,207                 | 0              | 35,207    | 12,462     |
| Ohio                                     | 235,719                | 209,903        | 25,816    | 11,933     |
| Oklahoma                                 | 3,950,362              | 3,721,016      | 229,346   | 460,564    |
| Pennsylvania                             | 778,794                | 677,643        | 101,151   | 42,584     |
| South Dakota                             | 2,293                  | 0              | 2,293     | 549        |
| Tennessee                                | 14,091                 | 0              | 14,091    | 2,214      |
| Texas                                    | 6,325,361              | 5,789,540      | 535,821   | 1,257,507  |
| Texas Railroad District No. 1 (North)    | 1,451                  | 1,451          | 0         | 237        |
| Texas Railroad District No. 1 (South)    | 228,920                | 158,030        | 70,890    | 33,843     |
| Texas Railroad District No. 2            | 394,569                | 381,180        | 13,389    | 191,513    |
| Texas Railroad District No. 3            | 127,410                | 111,657        | 15,753    | 24,549     |
| Texas Railroad District No. 4            | 653,649                | 575,668        | 77,981    | 137,766    |
| Texas Railroad District No. 5            | 1,391                  | 35             | 1,356     | 486        |
| Texas Railroad District No. 6            | 760,001                | 751,234        | 8,767     | 95,820     |
| Texas Railroad District No. 7B           | 669                    | 0              | 669       | 78         |
| Texas Railroad District No. 7C           | 176,787                | 106,037        | 70,750    | 36,075     |
| Texas Railroad District No. 8            | 425,145                | 297,159        | 127,986   | 70,921     |
| Texas Railroad District No. 8A           | 3,563                  | 984            | 2,579     | 1,279      |
| Texas Railroad District No. 9            | 146,196                | 125,607        | 20,589    | 38,391     |
| Texas Railroad District No. 10           | 1,384,205              | 1,317,845      | 66,360    | 176,736    |
| Total Texas Offshore                     | 2,021,405              | 1,962,653      | 58,752    | 443,813    |
| Utah                                     | 270,761                | 270,527        | 234       | 21,710     |
| Virginia                                 | 128,092                | 128,092        | 0         | 16,165     |
| Washington                               | 6,604                  | 6,604          | 0         | 0          |
| West Virginia                            | 1,609,044              | 1,458,179      | 150,865   | 118,556    |
| Wyoming                                  | 2,033,820              | 1,786,865      | 246,955   | 184,577    |
| Undesignated <sup>b</sup>                | 1,444,276              | 1,444,276      | 0         | 84         |
| Total All States                         | 37,685,381             | 34,064,435     | 3,620,946 | 4,843,332  |

<sup>a</sup> Warranty reserves are reserves guaranteed by contract but not supported by dedication of specific approved sources of supply.

<sup>b</sup> Includes reserves in underground storage which were reported without a State designation.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 7. Dedicated Gas Production and Reserves by Type of Gas by State and Company**  
(Million Cubic Feet)

| State  | 1989 Year-End Reserves |                  |                | Production     |
|--|------------------------|------------------|----------------|----------------|
|  | Total                  | Non-associated   | Other          |                |
| <b>Alabama</b>                                   |                        |                  |                |                |
| Florida Gas Transmission Co <sup>a</sup>         | 39,859                 | 35,841           | 4,018          | 7,087          |
| Southern Natural Gas Co <sup>a</sup>             | 142,000                | 141,536          | 464            | 18,698         |
| Tennessee Gas Pipeline Div Tenneco               | 33,788                 | 33,686           | 102            | 6,778          |
| Texas Eastern Transmission Corp <sup>a</sup>     | 0                      | 0                | 0              | 1,857          |
| United Gas Pipe Line Co <sup>a</sup>             | 1,717                  | 1,717            | 0              | 0              |
| <b>State Total</b>                               | <b>217,364</b>         | <b>212,780</b>   | <b>4,584</b>   | <b>34,420</b>  |
| <b>Arizona</b>                                   |                        |                  |                |                |
| El Paso Natural Gas Co <sup>a</sup>              | 93                     | 93               | 0              | 13             |
| <b>State Total</b>                               | <b>93</b>              | <b>93</b>        | <b>0</b>       | <b>13</b>      |
| <b>Arkansas</b>                                  |                        |                  |                |                |
| Arkansas Oklahoma Gas Corp                       | 7,119                  | 7,119            | 0              | 954            |
| Arkla Inc <sup>a</sup>                           | 1,073,933              | 1,064,714        | 9,219          | 84,725         |
| Columbia Gas Transmission Corp <sup>a</sup>      | 56,104                 | 56,104           | 0              | 2,839          |
| International Paper Co                           | 1,500                  | 1,500            | 0              | 169            |
| Louisiana-Nevada Transit Co                      | 30,935                 | 30,935           | 0              | 0              |
| Mississippi River Transmission Corp              | 639,879                | 639,871          | 8              | 67,930         |
| Tennessee Gas Pipeline Div Tenneco               | 45,284                 | 45,284           | 0              | 5,691          |
| Texas Eastern Transmission Corp <sup>a</sup>     | 1,538                  | 1,278            | 260            | 4,170          |
| Texas Gas Transmission Corp <sup>a</sup>         | 0                      | 0                | 0              | 274            |
| <b>State Total</b>                               | <b>1,856,292</b>       | <b>1,846,805</b> | <b>9,487</b>   | <b>166,752</b> |
| <b>California</b>                                |                        |                  |                |                |
| Pacific Interstate Offshore Co                   | 76,642                 | 0                | 76,642         | 12,068         |
| Pacific Offshore Pipeline Co                     | 153,300                | 0                | 153,300        | 12,441         |
| <b>State Total</b>                               | <b>229,942</b>         | <b>0</b>         | <b>229,942</b> | <b>24,509</b>  |
| <b>Colorado</b>                                  |                        |                  |                |                |
| Colorado Interstate Gas Co <sup>a</sup>          | 47,388                 | 36,136           | 11,252         | 8,171          |
| El Paso Natural Gas Co <sup>a</sup>              | 31,735                 | 2,371            | 29,364         | 3,275          |
| K N Energy Inc <sup>a</sup>                      | 58,667                 | 58,667           | 0              | 5,673          |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 17,532                 | 16,566           | 966            | 2,245          |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 1,771                  | 1,102            | 669            | 913            |
| Northwest Pipeline Corp <sup>a</sup>             | 154,429                | 106,155          | 47,974         | 1,254          |
| Panhandle Eastern Pipe Line Co <sup>a</sup>      | 53,920                 | 17,921           | 35,999         | 6,521          |
| Questar Pipeline Company                         | 72,314                 | 72,314           | 0              | 10,128         |
| Williams Natural Gas Co <sup>a</sup>             | 50,837                 | 50,837           | 0              | 4,491          |
| <b>State Total</b>                               | <b>488,593</b>         | <b>362,369</b>   | <b>126,224</b> | <b>42,671</b>  |
| <b>Florida</b>                                   |                        |                  |                |                |
| Florida Gas Transmission Co <sup>a</sup>         | 6,933                  | 0                | 6,933          | 1,477          |
| Tennessee Gas Pipeline Div Tenneco               | 2,324                  | 0                | 2,324          | 0              |
| <b>State Total</b>                               | <b>9,257</b>           | <b>0</b>         | <b>9,257</b>   | <b>1,477</b>   |
| <b>Illinois</b>                                  |                        |                  |                |                |
| Mississippi River Transmission Corp              | 456                    | 456              | 0              | 0              |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 0                      | 0                | 0              | 9              |
| Texas Eastern Transmission Corp <sup>a</sup>     | 2,407                  | 1,929            | 478            | 905            |
| Trunkline Gas Co <sup>a</sup>                    | 12                     | 12               | 0              | 203            |
| <b>State Total</b>                               | <b>2,875</b>           | <b>2,397</b>     | <b>478</b>     | <b>1,117</b>   |
| <b>Indiana</b>                                   |                        |                  |                |                |
| Texas Gas Transmission Corp <sup>a</sup>         | 0                      | 0                | 0              | 1              |
| <b>State Total</b>                               | <b>0</b>               | <b>0</b>         | <b>0</b>       | <b>1</b>       |
| <b>Kansas</b>                                    |                        |                  |                |                |
| ANR Pipeline Co <sup>a</sup>                     | 4,275                  | 4,250            | 25             | 874            |
| Arkla Inc <sup>a</sup>                           | 1,618                  | 1,618            | 0              | 133            |
| Colorado Interstate Gas Co <sup>a</sup>          | 481,647                | 481,647          | 0              | 33,981         |
| K N Energy Inc <sup>a</sup>                      | 588,750                | 588,750          | 0              | 39,735         |
| Mississippi River Transmission Corp              | 0                      | 0                | 0              | 47             |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 2,127                  | 1,828            | 299            | 284            |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 300,798                | 299,033          | 1,765          | 42,709         |
| Panhandle Eastern Pipe Line Co <sup>a</sup>      | 108,083                | 101,480          | 6,603          | 6,509          |
| Williams Natural Gas Co <sup>a</sup>             | 1,597,361              | 1,597,361        | 0              | 62,086         |
| Zenith Natural Gas Co                            | 5,790                  | 0                | 5,790          | 1,420          |

Note: Footnotes appear at the end of the table.

**Table 7. Dedicated Gas Production and Reserves by Type of Gas by State and Company (Continued)**  
(Million Cubic Feet)

| State  | 1989 Year-End Reserves |                |         | Production |
|--|------------------------|----------------|---------|------------|
|  | Total                  | Non-associated | Other   |            |
| <b>State Total</b>                               | 3,090,449              | 3,075,967      | 14,482  | 187,776    |
| <b>Kentucky</b>                                  |                        |                |         |            |
| Columbia Gas Transmission Corp <sup>a</sup>      | 238,724                | 238,724        | 0       | 16,740     |
| Inland Gas Co Inc                                | 28,295                 | 28,295         | 0       | 1,995      |
| Kentucky West Va Gas Co                          | 325,542                | 325,542        | 0       | 21,813     |
| Tennessee Gas Pipeline Div Tenneco               | 3,815                  | 3,815          | 0       | 0          |
| Texas Eastern Transmission Corp <sup>a</sup>     | 591                    | 591            | 0       | 99         |
| Texas Gas Transmission Corp <sup>a</sup>         | 476                    | 476            | 0       | 42         |
| <b>State Total</b>                               | 597,443                | 597,443        | 0       | 40,689     |
| <b>Louisiana</b>                                 |                        |                |         |            |
| <b>Northern Louisiana</b>                        |                        |                |         |            |
| ANR Pipeline Co <sup>a</sup>                     | 2,284                  | 2,204          | 80      | 0          |
| Arkla Inc <sup>a</sup>                           | 267,511                | 267,346        | 165     | 27,713     |
| CNG Transmission Corp <sup>a</sup>               | 0                      | 0              | 0       | 22         |
| Columbia Gas Transmission Corp <sup>a</sup>      | 117,031                | 116,749        | 282     | 9,608      |
| Florida Gas Transmission Co <sup>a</sup>         | 79,440                 | 79,363         | 61      | 13,751     |
| International Paper Co                           | 13,147                 | 10,647         | 2,500   | 2,118      |
| Louisiana-Nevada Transit Co                      | 17,489                 | 17,489         | 0       | 1,056      |
| Mid Louisiana Gas Co                             | 64,375                 | 0              | 64,375  | 9,881      |
| Mississippi River Transmission Corp              | 117,737                | 117,737        | 0       | 14,182     |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 31                     | 31             | 0       | 0          |
| Southern Natural Gas Co <sup>a</sup>             | 99,189                 | 99,104         | 85      | 14,312     |
| Tennessee Gas Pipeline Div Tenneco               | 8,401                  | 8,399          | 2       | 2,011      |
| Texas Eastern Transmission Corp <sup>a</sup>     | 129,020                | 128,865        | 155     | 17,931     |
| Texas Gas Transmission Corp <sup>a</sup>         | 67,427                 | 51,666         | 15,761  | 7,769      |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 19,693                 | 2,296          | 17,397  | 2,742      |
| Trunkline Gas Co <sup>a</sup>                    | 25,138                 | 25,065         | 73      | 199        |
| United Gas Pipe Line Co <sup>a</sup>             | 71,668                 | 71,327         | 341     | 1,230      |
| <b>Area Total</b>                                | 1,099,590              | 998,313        | 101,277 | 124,525    |
| <b>Southern Louisiana Onshore</b>                |                        |                |         |            |
| Algonquin Gas Transmission Co                    | 0                      | 0              | 0       | 49         |
| ANR Pipeline Co <sup>a</sup>                     | 25,197                 | 24,037         | 1,160   | 3,679      |
| Bayou Interstate Pipeline System                 | 217                    | 217            | 0       | 435        |
| CNG Transmission Corp <sup>a</sup>               | 819                    | 819            | 0       | 803        |
| Columbia Gas Transmission Corp <sup>a</sup>      | 524,242                | 502,486        | 21,756  | 67,047     |
| Eastern Shore Natural Gas Co                     | 0                      | 0              | 0       | 973        |
| Florida Gas Transmission Co <sup>a</sup>         | 76,815                 | 68,570         | 8,236   | 23,783     |
| Mid Louisiana Gas Co                             | 432                    | 0              | 432     | 323        |
| Mississippi River Transmission Corp              | 2,342                  | 2,342          | 0       | 2,691      |
| Pennsylvania & Southern Gas Co                   | 247                    | 0              | 247     | 0          |
| Southern Natural Gas Co <sup>a</sup>             | 78,308                 | 33,788         | 44,520  | 18,921     |
| Tennessee Gas Pipeline Div Tenneco               | 215,132                | 188,523        | 26,609  | 33,086     |
| Texas Eastern Transmission Corp <sup>a</sup>     | 60,698                 | 53,762         | 6,936   | 6,993      |
| Texas Gas Transmission Corp <sup>a</sup>         | 633,057                | 624,087        | 8,970   | 47,209     |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 179,912                | 172,101        | 7,811   | 29,103     |
| Trunkline Gas Co <sup>a</sup>                    | 25,089                 | 20,353         | 4,736   | 6,318      |
| United Gas Pipe Line Co <sup>a</sup>             | 8,753                  | 7,937          | 786     | 784        |
| <b>Area Total</b>                                | 1,831,260              | 1,699,061      | 132,199 | 242,197    |
| <b>Southern Louisiana Warranty<sup>b</sup></b>   |                        |                |         |            |
| Texas Eastern Transmission Corp <sup>a</sup>     | 0                      | 0              | 0       | 128,889    |
| <b>Area Total</b>                                | 0                      | 0              | 0       | 128,889    |
| <b>Southern Louisiana Offshore</b>               |                        |                |         |            |
| ANR Pipeline Co <sup>a</sup>                     | 279,189                | 221,504        | 57,685  | 56,755     |
| Arkla Inc <sup>a</sup>                           | 30,063                 | 30,063         | 0       | 1,529      |
| CNG Transmission Corp <sup>a</sup>               | 129,278                | 116,553        | 12,725  | 12,104     |
| Columbia Gas Transmission Corp <sup>a</sup>      | 943,389                | 820,215        | 123,174 | 82,682     |
| Eastern Shore Natural Gas Co                     | 0                      | 0              | 0       | 982        |
| Florida Gas Transmission Co <sup>a</sup>         | 154,021                | 147,754        | 6,267   | 32,501     |
| Mid Louisiana Gas Co                             | 21,799                 | 0              | 21,799  | 7,412      |
| Mississippi River Transmission Corp              | 0                      | 0              | 0       | 2,603      |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 180,871                | 155,214        | 25,657  | 29,450     |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 72,538                 | 29,207         | 43,331  | 34,618     |

Note: Footnotes appear at the end of the table.

**Table 7. Dedicated Gas Production and Reserves by Type of Gas by State and Company (Continued)**  
(Million Cubic Feet)

| State  | 1989 Year-End Reserves |                  |                  | Production       |
|--|------------------------|------------------|------------------|------------------|
|  | Total                  | Non-associated   | Other            |                  |
| <b>Southern Louisiana Offshore</b>               |                        |                  |                  |                  |
| Panhandle Eastern Pipe Line Co <sup>a</sup>      | 12,267                 | 12,267           | 0                | 141              |
| Sea Robin Pipeline Co <sup>a</sup>               | 54,720                 | 44,828           | 9,892            | 1,144            |
| Southern Natural Gas Co <sup>a</sup>             | 598,203                | 465,689          | 132,514          | 150,395          |
| Tennessee Gas Pipeline Div Tenneco               | 1,398,837              | 1,234,122        | 164,715          | 250,951          |
| Texas Eastern Transmission Corp <sup>a</sup>     | 2,024,664              | 1,763,097        | 261,567          | 206,584          |
| Texas Gas Transmission Corp <sup>a</sup>         | 146,656                | 128,233          | 18,423           | 21,688           |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 708,923                | 569,316          | 139,607          | 181,245          |
| Trunkline Gas Co <sup>a</sup>                    | 544,447                | 483,178          | 61,269           | 119,446          |
| United Gas Pipe Line Co <sup>a</sup>             | 54,602                 | 36,820           | 17,782           | 9,823            |
| <b>Area Total</b>                                | <b>7,354,467</b>       | <b>6,258,060</b> | <b>1,096,407</b> | <b>1,202,033</b> |
| <b>State Total</b>                               | <b>10,285,317</b>      | <b>8,955,434</b> | <b>1,329,883</b> | <b>1,697,644</b> |
| <b>Maryland</b>                                  |                        |                  |                  |                  |
| Columbia Gas Transmission Corp <sup>a</sup>      | 562                    | 562              | 0                | 44               |
| Texas Eastern Transmission Corp <sup>a</sup>     | 41,268                 | 41,268           | 0                | 0                |
| Washington Gas Light Co                          | 0                      | 0                | 0                | 83,732           |
| <b>State Total</b>                               | <b>41,830</b>          | <b>41,830</b>    | <b>0</b>         | <b>83,776</b>    |
| <b>Massachusetts</b>                             |                        |                  |                  |                  |
| Granite State Gas Transmission Inc               | 0                      | 0                | 0                | 18,255           |
| <b>State Total</b>                               | <b>0</b>               | <b>0</b>         | <b>0</b>         | <b>18,255</b>    |
| <b>Michigan</b>                                  |                        |                  |                  |                  |
| ANR Pipeline Co <sup>a</sup>                     | 114,063                | 114,063          | 0                | 0                |
| Michigan Gas Storage Co                          | 48                     | 48               | 0                | 15,996           |
| <b>State Total</b>                               | <b>114,111</b>         | <b>114,111</b>   | <b>0</b>         | <b>15,996</b>    |
| <b>Mississippi</b>                               |                        |                  |                  |                  |
| Alabama-Tennessee Natural Gas Co                 | 0                      | 0                | 0                | 938              |
| ANR Pipeline Co <sup>a</sup>                     | 1,007                  | 1,007            | 0                | 91               |
| Eastern Shore Natural Gas Co                     | 0                      | 0                | 0                | 2,242            |
| Florida Gas Transmission Co <sup>a</sup>         | 41,273                 | 39,792           | 1,481            | 20,558           |
| Mid Louisiana Gas Co                             | 2,633                  | 0                | 2,633            | 1,180            |
| Southern Natural Gas Co <sup>a</sup>             | 107,916                | 107,760          | 156              | 12,568           |
| Tennessee Gas Pipeline Div Tenneco               | 45,776                 | 43,812           | 1,964            | 13,218           |
| Texas Eastern Transmission Corp <sup>a</sup>     | 5,550                  | 5,509            | 41               | 39,233           |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 110,788                | 109,571          | 1,217            | 20,400           |
| United Gas Pipe Line Co <sup>a</sup>             | 5,194                  | 4,705            | 489              | 309              |
| <b>State Total</b>                               | <b>320,137</b>         | <b>312,156</b>   | <b>7,981</b>     | <b>110,737</b>   |
| <b>Missouri</b>                                  |                        |                  |                  |                  |
| Williams Natural Gas Co <sup>a</sup>             | 13,258                 | 13,258           | 0                | 9,583            |
| <b>State Total</b>                               | <b>13,258</b>          | <b>13,258</b>    | <b>0</b>         | <b>9,583</b>     |
| <b>Montana</b>                                   |                        |                  |                  |                  |
| K N Energy Inc <sup>a</sup>                      | 119,939                | 119,939          | 0                | 3,657            |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 35,651                 | 35,650           | 1                | 14,089           |
| Williston Basin Interstate Pipeline <sup>a</sup> | 283,899                | 115,422          | 168,477          | 4,332            |
| <b>State Total</b>                               | <b>439,489</b>         | <b>271,011</b>   | <b>168,478</b>   | <b>22,078</b>    |
| <b>Nebraska</b>                                  |                        |                  |                  |                  |
| K N Energy Inc <sup>a</sup>                      | 87,641                 | 87,641           | 0                | 320              |
| <b>State Total</b>                               | <b>87,641</b>          | <b>87,641</b>    | <b>0</b>         | <b>320</b>       |
| <b>New Mexico</b>                                |                        |                  |                  |                  |
| <b>San Juan Basin</b>                            |                        |                  |                  |                  |
| El Paso Natural Gas Co <sup>a</sup>              | 1,797,288              | 1,705,854        | 91,434           | 83,731           |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 13                     | 13               | 0                | 0                |
| Northwest Pipeline Corp <sup>a</sup>             | 289,282                | 289,282          | 0                | 11,434           |
| <b>Area Total</b>                                | <b>2,086,583</b>       | <b>1,995,149</b> | <b>91,434</b>    | <b>95,165</b>    |
| <b>New Mexico Permian Basin</b>                  |                        |                  |                  |                  |
| El Paso Natural Gas Co <sup>a</sup>              | 314,304                | 114,743          | 199,561          | 24,379           |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 102,502                | 100,470          | 2,032            | 10,133           |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 81,895                 | 54,847           | 27,048           | 19,513           |
| Tennessee Gas Pipeline Div Tenneco               | 1,554                  | 1,554            | 0                | 0                |

Note: Footnotes appear at the end of the table.

**Table 7. Dedicated Gas Production and Reserves by Type of Gas by State and Company (Continued)**  
(Million Cubic Feet)

| State  | 1989 Year-End Reserves |                  |                | Production     |
|--|------------------------|------------------|----------------|----------------|
|  | Total                  | Non-associated   | Other          |                |
| <b>New Mexico Permian Basin</b>                  |                        |                  |                |                |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 83                     | 83               | 0              | 31             |
| Transwestern Pipeline Co <sup>a</sup>            | 309,488                | 251,192          | 58,296         | 72,344         |
| United Gas Pipe Line Co <sup>a</sup>             | 2,056                  | 2,056            | 0              | 0              |
| <b>Area Total</b>                                | <b>811,882</b>         | <b>524,945</b>   | <b>286,937</b> | <b>126,700</b> |
| <b>State Total</b>                               | <b>2,898,465</b>       | <b>2,520,094</b> | <b>378,371</b> | <b>221,865</b> |
| <b>New York</b>                                  |                        |                  |                |                |
| CNG Transmission Corp <sup>a</sup>               | 11,863                 | 11,863           | 0              | 344            |
| Columbia Gas Transmission Corp <sup>a</sup>      | 67,916                 | 67,916           | 0              | 2,426          |
| National Fuel Gas Supply Corp                    | 47,988                 | 47,988           | 0              | 2,626          |
| Orange & Rockland Utilities Inc                  | 7,870                  | 7,870            | 0              | 29,328         |
| Tennessee Gas Pipeline Div Tenneco               | 7,475                  | 7,475            | 0              | 22             |
| <b>State Total</b>                               | <b>143,112</b>         | <b>143,112</b>   | <b>0</b>       | <b>34,746</b>  |
| <b>North Dakota</b>                              |                        |                  |                |                |
| Williston Basin Interstate Pipeline <sup>a</sup> | 35,207                 | 0                | 35,207         | 12,462         |
| <b>State Total</b>                               | <b>35,207</b>          | <b>0</b>         | <b>35,207</b>  | <b>12,462</b>  |
| <b>Ohio</b>                                      |                        |                  |                |                |
| Columbia Gas Transmission Corp <sup>a</sup>      | 215,064                | 199,426          | 15,638         | 9,759          |
| Gas Transport Inc                                | 10,178                 | 0                | 10,178         | 1,018          |
| Tennessee Gas Pipeline Div Tenneco               | 6,946                  | 6,946            | 0              | 116            |
| Texas Eastern Transmission Corp <sup>a</sup>     | 3,531                  | 3,531            | 0              | 1,040          |
| <b>State Total</b>                               | <b>235,719</b>         | <b>209,903</b>   | <b>25,816</b>  | <b>11,933</b>  |
| <b>Oklahoma</b>                                  |                        |                  |                |                |
| ANR Pipeline Co <sup>a</sup>                     | 327,463                | 309,976          | 17,487         | 44,945         |
| Arkansas Oklahoma Gas Corp                       | 26,497                 | 26,497           | 0              | 1,335          |
| Arkla Inc <sup>a</sup>                           | 1,565,532              | 1,555,662        | 9,870          | 156,100        |
| Colorado Interstate Gas Co <sup>a</sup>          | 147,748                | 147,748          | 0              | 20,299         |
| Columbia Gas Transmission Corp <sup>a</sup>      | 16,739                 | 16,739           | 0              | 1,612          |
| El Paso Natural Gas Co <sup>a</sup>              | 321,760                | 291,357          | 30,403         | 26,252         |
| K N Energy Inc <sup>a</sup>                      | 56,924                 | 56,909           | 15             | 10,344         |
| Lone Star Gas Co Div Enserch Corp                | 88,876                 | 11,402           | 77,474         | 14,114         |
| Mississippi River Transmission Corp              | 53,025                 | 53,025           | 0              | 19,850         |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 125,418                | 119,814          | 5,604          | 21,361         |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 231,168                | 225,663          | 5,505          | 60,099         |
| Northwest Pipeline Corp <sup>a</sup>             | 0                      | 0                | 0              | 40             |
| Panhandle Eastern Pipe Line Co <sup>a</sup>      | 241,109                | 221,798          | 19,311         | 9,164          |
| Ringwood Gathering Co                            | 40,361                 | 0                | 40,361         | 8,332          |
| Tennessee Gas Pipeline Div Tenneco               | 42,199                 | 42,195           | 4              | 6,631          |
| Texas Gas Transmission Corp <sup>a</sup>         | 405                    | 405              | 0              | 114            |
| Transwestern Pipeline Co <sup>a</sup>            | 146,837                | 141,749          | 5,088          | 28,456         |
| United Gas Pipe Line Co <sup>a</sup>             | 3,158                  | 3,158            | 0              | 0              |
| Western Gas Interstate Co                        | 17,539                 | 0                | 17,539         | 1,730          |
| Williams Natural Gas Co <sup>a</sup>             | 496,919                | 496,919          | 0              | 29,711         |
| Zenith Natural Gas Co                            | 685                    | 0                | 685            | 75             |
| <b>State Total</b>                               | <b>3,950,362</b>       | <b>3,721,016</b> | <b>229,346</b> | <b>460,564</b> |
| <b>Pennsylvania</b>                              |                        |                  |                |                |
| Carnegie Natural Gas Co                          | 16,564                 | 16,564           | 0              | 7,494          |
| CNG Transmission Corp <sup>a</sup>               | 149,174                | 149,174          | 0              | 8,168          |
| Columbia Gas Transmission Corp <sup>a</sup>      | 169,086                | 169,086          | 0              | 8,807          |
| Equitrans Inc.                                   | 30,770                 | 30,770           | 0              | 2,835          |
| National Fuel Gas Supply Corp                    | 226,780                | 226,780          | 0              | 13,209         |
| North Penn Gas Co                                | 8,971                  | 8,971            | 0              | 1,594          |
| Tennessee Gas Pipeline Div Tenneco               | 102,371                | 1,220            | 101,151        | 0              |
| Texas Eastern Transmission Corp <sup>a</sup>     | 75,078                 | 75,078           | 0              | 477            |
| <b>State Total</b>                               | <b>778,794</b>         | <b>677,643</b>   | <b>101,151</b> | <b>42,584</b>  |
| <b>South Dakota</b>                              |                        |                  |                |                |
| Williston Basin Interstate Pipeline <sup>a</sup> | 2,293                  | 0                | 2,293          | 549            |
| <b>State Total</b>                               | <b>2,293</b>           | <b>0</b>         | <b>2,293</b>   | <b>549</b>     |

Note: Footnotes appear at the end of the table.

**Table 7. Dedicated Gas Production and Reserves by Type of Gas by State and Company (Continued)**  
(Million Cubic Feet)

| State  | 1989 Year-End Reserves |                |               | Production     |
|--|------------------------|----------------|---------------|----------------|
|  | Total                  | Non-associated | Other         |                |
| <b>Tennessee</b>                                 |                        |                |               |                |
| East Tennessee Natural Gas Co                    | 14,091                 | 0              | 14,091        | 2,179          |
| Texas Gas Transmission Corp <sup>a</sup>         | 0                      | 0              | 0             | 35             |
| <b>State Total</b>                               | <b>14,091</b>          | <b>0</b>       | <b>14,091</b> | <b>2,214</b>   |
| <b>Texas Railroad District No. 1 (North)</b>     |                        |                |               |                |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 1,451                  | 1,451          | 0             | 237            |
| <b>District Total</b>                            | <b>1,451</b>           | <b>1,451</b>   | <b>0</b>      | <b>237</b>     |
| <b>Texas Railroad District No. 1 (South)</b>     |                        |                |               |                |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 220                    | 220            | 0             | 17             |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 4,964                  | 4,730          | 234           | 5,435          |
| Tennessee Gas Pipeline Div Tenneco               | 3,179                  | 3,179          | 0             | 1,393          |
| Texas Eastern Transmission Corp <sup>a</sup>     | 176,017                | 112,949        | 63,068        | 17,754         |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 44,540                 | 36,952         | 7,588         | 9,244          |
| <b>District Total</b>                            | <b>228,920</b>         | <b>158,030</b> | <b>70,890</b> | <b>33,843</b>  |
| <b>Texas Railroad District No. 2</b>             |                        |                |               |                |
| Florida Gas Transmission Co <sup>a</sup>         | 179,669                | 178,703        | 966           | 136,205        |
| Mississippi River Transmission Corp              | 0                      | 0              | 0             | 20,750         |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 2,679                  | 2,617          | 62            | 1,568          |
| Tennessee Gas Pipeline Div Tenneco               | 25,685                 | 20,704         | 4,981         | 5,973          |
| Texas Eastern Transmission Corp <sup>a</sup>     | 133,623                | 132,451        | 1,172         | 18,248         |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 41,210                 | 36,542         | 4,668         | 5,594          |
| Trunkline Gas Co <sup>a</sup>                    | 4,003                  | 3,990          | 13            | 2,801          |
| United Gas Pipe Line Co <sup>a</sup>             | 7,500                  | 5,973          | 1,527         | 370            |
| Valero Interstate Transmission Co <sup>a</sup>   | 200                    | 200            | 0             | 4              |
| <b>District Total</b>                            | <b>394,569</b>         | <b>381,180</b> | <b>13,389</b> | <b>191,513</b> |
| <b>Texas Railroad District No. 3</b>             |                        |                |               |                |
| Algonquin Gas Transmission Co                    | 0                      | 0              | 0             | 23             |
| Columbia Gas Transmission Corp <sup>a</sup>      | 5,807                  | 5,807          | 0             | 1,183          |
| Eastern Shore Natural Gas Co                     | 0                      | 0              | 0             | 533            |
| Florida Gas Transmission Co <sup>a</sup>         | 6,846                  | 6,121          | 725           | 1,620          |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 2,271                  | 2,055          | 216           | 998            |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 6,712                  | 2,932          | 3,780         | 1,542          |
| Tennessee Gas Pipeline Div Tenneco               | 32,438                 | 29,382         | 3,056         | 5,801          |
| Texas Eastern Transmission Corp <sup>a</sup>     | 30,986                 | 30,434         | 552           | 4,469          |
| Texas Gas Pipeline Corp                          | 17,588                 | 17,588         | 0             | 3,739          |
| Texas Gas Transmission Corp <sup>a</sup>         | 10,691                 | 10,691         | 0             | 600            |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 4,133                  | 2,465          | 1,568         | 377            |
| Trunkline Gas Co <sup>a</sup>                    | 8,130                  | 3,088          | 5,742         | 3,661          |
| United Gas Pipe Line Co <sup>a</sup>             | 1,008                  | 1,094          | 114           | 3              |
| <b>District Total</b>                            | <b>157,410</b>         | <b>111,657</b> | <b>15,753</b> | <b>24,549</b>  |
| <b>Texas Railroad District No. 4</b>             |                        |                |               |                |
| Columbia Gas Transmission Corp <sup>a</sup>      | 66,000                 | 0              | 66,000        | 6,104          |
| Florida Gas Transmission Co <sup>a</sup>         | 35,894                 | 35,664         | 230           | 16,957         |
| Mississippi River Transmission Corp              | 0                      | 0              | 0             | 4,780          |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 78,847                 | 75,676         | 3,171         | 8,260          |
| Tennessee Gas Pipeline Div Tenneco               | 259,361                | 254,391        | 4,970         | 55,646         |
| Texas Eastern Transmission Corp <sup>a</sup>     | 123,426                | 122,618        | 808           | 10,586         |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 69,214                 | 67,076         | 2,138         | 27,876         |
| Trunkline Gas Co <sup>a</sup>                    | 848                    | 324            | 524           | 785            |
| United Gas Pipe Line Co <sup>a</sup>             | 1,394                  | 1,254          | 140           | 19             |
| Valero Interstate Transmission Co <sup>a</sup>   | 18,665                 | 18,665         | 0             | 6,753          |
| <b>District Total</b>                            | <b>653,649</b>         | <b>575,668</b> | <b>77,981</b> | <b>137,766</b> |
| <b>Texas Railroad District No. 5</b>             |                        |                |               |                |
| United Gas Pipe Line Co <sup>a</sup>             | 1,391                  | 35             | 1,356         | 486            |
| <b>District Total</b>                            | <b>1,391</b>           | <b>35</b>      | <b>1,356</b>  | <b>486</b>     |
| <b>Texas Railroad District No. 6</b>             |                        |                |               |                |
| Arkla Inc <sup>a</sup>                           | 315,268                | 313,412        | 1,856         | 20,365         |
| Eastern Shore Natural Gas Co                     | 0                      | 0              | 0             | 155            |
| Mississippi River Transmission Corp              | 17,432                 | 17,341         | 91            | 8,073          |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 8,484                  | 8,080          | 404           | 1,015          |

Note: Footnotes appear at the end of the table.

**Table 7. Dedicated Gas Production and Reserves by Type of Gas by State and Company (Continued)**  
(Million Cubic Feet)

| State  | 1989 Year-End Reserves |                  |                | Production      |
|--|------------------------|------------------|----------------|-----------------|
|  | Total                  | Non-associated   | Other          |                 |
| Texas Railroad District No. 6                    |                        |                  |                |                 |
| Southern Natural Gas Co <sup>a</sup>             | 29,651                 | 20,095           | 556            | 8,103           |
| Tennessee Gas Pipeline Div Tenneco               | 91,794                 | 91,777           | 17             | 26,740          |
| Texas Eastern Transmission Corp <sup>a</sup>     | 229,914                | 226,891          | 3,023          | 21,114          |
| Texas Gas Transmission Corp <sup>a</sup>         | 33,444                 | 33,327           | 117            | 6,430           |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 425                    | 425              | 0              | 19 <sup>e</sup> |
| United Gas Pipe Line Co <sup>a</sup>             | 33,589                 | 30,886           | 2,703          | 3,627           |
| <b>District Total</b>                            | <b>760,001</b>         | <b>751,234</b>   | <b>8,767</b>   | <b>95,820</b>   |
| Texas Railroad District No. 7B                   |                        |                  |                |                 |
| El Paso Natural Gas Co <sup>a</sup>              | 669                    | 0                | 669            | 78              |
| <b>District Total</b>                            | <b>669</b>             | <b>0</b>         | <b>669</b>     | <b>78</b>       |
| Texas Railroad District No. 7C                   |                        |                  |                |                 |
| El Paso Natural Gas Co <sup>a</sup>              | 121,299                | 61,541           | 59,758         | 12,233          |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 826                    | 826              | 0              | 235             |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 54,414                 | 43,422           | 10,992         | 23,584          |
| Panhandle Eastern Pipe Line Co <sup>a</sup>      | 248                    | 248              | 0              | 2 <sup>a</sup>  |
| <b>District Total</b>                            | <b>176,787</b>         | <b>106,037</b>   | <b>70,750</b>  | <b>36,075</b>   |
| Texas Railroad District No. 8                    |                        |                  |                |                 |
| El Paso Natural Gas Co <sup>a</sup>              | 135,870                | 67,568           | 68,302         | 20,878          |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 3,430                  | 3,430            | 0              | 2,657           |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 121,237                | 88,522           | 32,715         | 32,222          |
| Texas Gas Transmission Corp <sup>a</sup>         | 732                    | 732              | 0              | 1               |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 198                    | 198              | 0              | 24              |
| Transwestern Pipeline Co <sup>a</sup>            | 163,678                | 136,709          | 26,969         | 15,139          |
| <b>District Total</b>                            | <b>425,145</b>         | <b>297,159</b>   | <b>127,986</b> | <b>70,921</b>   |
| Texas Railroad District No. 8A                   |                        |                  |                |                 |
| El Paso Natural Gas Co <sup>a</sup>              | 1,454                  | 0                | 1,454          | 130             |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 2,109                  | 984              | 1,125          | 1,149           |
| <b>District Total</b>                            | <b>3,563</b>           | <b>984</b>       | <b>2,579</b>   | <b>1,279</b>    |
| Texas Railroad District No. 9                    |                        |                  |                |                 |
| Lone Star Gas Co Div Enserch Corp                | 6,987                  | 6,277            | 710            | 114             |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 139,209                | 119,330          | 19,879         | 38,277          |
| <b>District Total</b>                            | <b>146,196</b>         | <b>125,607</b>   | <b>20,589</b>  | <b>38,391</b>   |
| Texas Railroad District No. 10                   |                        |                  |                |                 |
| ANR Pipeline Co <sup>a</sup>                     | 16,366                 | 14,035           | 2,331          | 2,386           |
| Arkla Inc <sup>a</sup>                           | 60,703                 | 60,703           | 0              | 5,711           |
| Caprock Pipeline Co                              | 33,407                 | 33,407           | 0              | 0               |
| Colorado Interstate Gas Co <sup>a</sup>          | 549,519                | 531,204          | 18,315         | 43,197          |
| El Paso Natural Gas Co <sup>a</sup>              | 22,867                 | 21,470           | 1,397          | 2,573           |
| K N Energy Inc <sup>a</sup>                      | 2,844                  | 2,844            | 0              | 2,503           |
| Mississippi River Transmission Corp              | 40,234                 | 39,386           | 848            | 4,900           |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 135,357                | 132,748          | 2,609          | 20,683          |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 194,250                | 185,035          | 9,215          | 59,759          |
| Panhandle Eastern Pipe Line Co <sup>a</sup>      | 120,856                | 118,542          | 2,314          | 2,959           |
| Southern Natural Gas Co <sup>a</sup>             | 1,023                  | 352              | 671            | 438             |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 70                     | 70               | 0              | 0               |
| Transwestern Pipeline Co <sup>a</sup>            | 132,815                | 104,843          | 27,972         | 22,149          |
| Western Gas Interstate Co                        | 688                    | 0                | 688            | 1,636           |
| Williams Natural Gas Co <sup>a</sup>             | 73,206                 | 73,206           | 0              | 7,842           |
| <b>District Total</b>                            | <b>1,384,205</b>       | <b>1,317,845</b> | <b>66,360</b>  | <b>176,736</b>  |
| Texas Offshore                                   |                        |                  |                |                 |
| ANR Pipeline Co <sup>a</sup>                     | 158,521                | 136,731          | 21,790         | 27,098          |
| CNG Transmission Corp <sup>a</sup>               | 97,951                 | 97,951           | 0              | 20,010          |
| Columbia Gas Transmission Corp <sup>a</sup>      | 74,485                 | 73,536           | 949            | 2,822           |
| Eastern Shore Natural Gas Co                     | 0                      | 0                | 0              | 605             |
| El Paso Natural Gas Co <sup>a</sup>              | 18,529                 | 18,529           | 0              | 474             |
| Florida Gas Transmission Co <sup>a</sup>         | 28,539                 | 28,470           | 69             | 12,955          |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 72,756                 | 71,549           | 1,207          | 11,598          |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 21,864                 | 20,872           | 992            | 20,923          |
| Panhandle Eastern Pipe Line Co <sup>a</sup>      | 2,284                  | 1,992            | 292            | 985             |

Note: Footnotes appear at the end of the table.

**Table 7. Dedicated Gas Production and Reserves by Type of Gas by State and Company (Continued)**  
(Million Cubic Feet)

| State  | 1989 Year-End Reserves |                  |                | Production       |
|--|------------------------|------------------|----------------|------------------|
|  | Total                  | Non-associated   | Other          |                  |
| <b>Texas Offshore</b>                            |                        |                  |                |                  |
| Southern Natural Gas Co <sup>a</sup>             | 111,838                | 107,448          | 4,390          | 13,892           |
| Tennessee Gas Pipeline Div Tenneco               | 239,500                | 236,638          | 2,862          | 27,116           |
| Texas Eastern Transmission Corp <sup>a</sup>     | 155,688                | 155,688          | 0              | 21,880           |
| Texas Gas Transmission Corp <sup>a</sup>         | 88,242                 | 75,663           | 12,579         | 20,023           |
| Transcontinental Gas Pipe Line Corp <sup>a</sup> | 871,167                | 859,616          | 11,551         | 255,226          |
| Trunkline Gas Co <sup>a</sup>                    | 36,542                 | 35,843           | 699            | 10,071           |
| United Gas Pipe Line Co <sup>a</sup>             | 43,499                 | 42,127           | 1,372          | 4,135            |
| <b>District Total</b>                            | <b>2,021,405</b>       | <b>1,962,653</b> | <b>58,752</b>  | <b>449,813</b>   |
| <b>State Total</b>                               | <b>6,325,361</b>       | <b>5,789,540</b> | <b>535,821</b> | <b>1,257,507</b> |
| <b>Utah</b>                                      |                        |                  |                |                  |
| Colorado Interstate Gas Co <sup>a</sup>          | 134,530                | 134,530          | 0              | 6,095            |
| El Paso Natural Gas Co <sup>a</sup>              | 227                    | 0                | 227            | 21               |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 217                    | 210              | 7              | 207              |
| Northwest Pipeline Corp <sup>a</sup>             | 68,016                 | 68,016           | 0              | 148              |
| Questar Pipeline Company                         | 67,771                 | 67,771           | 0              | 15,239           |
| <b>State Total</b>                               | <b>270,761</b>         | <b>270,527</b>   | <b>234</b>     | <b>21,710</b>    |
| <b>Virginia</b>                                  |                        |                  |                |                  |
| Columbia Gas Transmission Corp <sup>a</sup>      | 94,026                 | 94,026           | 0              | 6,376            |
| East Tennessee Natural Gas Co                    | 34,066                 | 34,066           | 0              | 9,789            |
| <b>State Total</b>                               | <b>128,092</b>         | <b>128,092</b>   | <b>0</b>       | <b>16,165</b>    |
| <b>Washington</b>                                |                        |                  |                |                  |
| Northwest Pipeline Corp <sup>a</sup>             | 6,604                  | 6,604            | 0              | 0                |
| <b>State Total</b>                               | <b>6,604</b>           | <b>6,604</b>     | <b>0</b>       | <b>0</b>         |
| <b>West Virginia</b>                             |                        |                  |                |                  |
| Carnegie Natural Gas Co                          | 46,494                 | 46,494           | 0              | 3,559            |
| CNG Transmission Corp <sup>a</sup>               | 628,428                | 628,428          | 0              | 51,825           |
| Columbia Gas Transmission Corp <sup>a</sup>      | 611,631                | 611,631          | 0              | 36,163           |
| Eastern Shore Natural Gas Co                     | 0                      | 0                | 0              | 1,541            |
| Equitrans Inc.                                   | 262,330                | 111,465          | 150,865        | 25,415           |
| Tennessee Gas Pipeline Div Tenneco               | 56,240                 | 56,240           | 0              | 0                |
| Texas Eastern Transmission Corp <sup>a</sup>     | 841                    | 841              | 0              | 53               |
| Washington Gas Light Co                          | 3,080                  | 3,080            | 0              | 0                |
| <b>State Total</b>                               | <b>1,609,044</b>       | <b>1,458,179</b> | <b>150,865</b> | <b>118,556</b>   |
| <b>Wyoming</b>                                   |                        |                  |                |                  |
| ANR Pipeline Co <sup>a</sup>                     | 458,934                | 458,934          | 0              | 21,584           |
| Colorado Interstate Gas Co <sup>a</sup>          | 479,166                | 475,459          | 3,707          | 34,449           |
| Columbia Gas Transmission Corp <sup>a</sup>      | 335,122                | 335,122          | 0              | 3,530            |
| Glacier Gas Co                                   | 2,529                  | 2,529            | 0              | 355              |
| K N Energy Inc <sup>a</sup>                      | 78,540                 | 78,540           | 0              | 14,179           |
| MIGC Inc   | 29,033                 | 0                | 29,033         | 3,012            |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 8,168                  | 8,168            | 0              | 8,287            |
| Northern Natural Div InterNorth Inc <sup>a</sup> | 9,702                  | 194              | 9,508          | 9,520            |
| Northwest Pipeline Corp <sup>a</sup>             | 135,491                | 35,156           | 100,335        | 15,681           |
| Pacific Gas Transmission Co                      | 23,834                 | 23,834           | 0              | 2,061            |
| Panhandle Eastern Pipe Line Co <sup>a</sup>      | 76,055                 | 11,809           | 64,246         | 13,791           |
| Questar Pipeline Company                         | 289,065                | 289,065          | 0              | 30,129           |
| Williams Natural Gas Co <sup>a</sup>             | 35,782                 | 35,782           | 0              | 18,278           |
| Williston Basin Interstate Pipeline <sup>a</sup> | 72,399                 | 32,273           | 40,126         | 9,721            |
| <b>State Total</b>                               | <b>2,033,820</b>       | <b>1,786,865</b> | <b>246,955</b> | <b>184,577</b>   |
| <b>Undesignated<sup>b</sup></b>                  |                        |                  |                |                  |
| Arkla Inc <sup>a</sup>                           | 31,088                 | 31,088           | 0              | 0                |
| CNG Transmission Corp <sup>a</sup>               | 247,562                | 247,562          | 0              | 0                |
| Colorado Interstate Gas Co <sup>a</sup>          | 66,233                 | 66,233           | 0              | 0                |
| Columbia Gas Transmission Corp <sup>a</sup>      | 538,177                | 538,177          | 0              | 0                |
| Equitrans Inc.                                   | 39,141                 | 39,141           | 0              | 0                |
| Mid Louisiana Gas Co                             | 1,500                  | 1,500            | 0              | 0                |
| Mississippi River Transmission Corp              | 0                      | 0                | 0              | 84               |
| Natural Gas Pipeline Co of America <sup>a</sup>  | 281,357                | 281,357          | 0              | 0                |
| Panhandle Eastern Pipe Line Co <sup>a</sup>      | 113,023                | 113,023          | 0              | 0                |
| Pennsylvania & Southern Gas Co                   | 330                    | 330              | 0              | 0                |

Note: Footnotes appear at the end of the table.

**Table 7. Dedicated Gas Production and Reserves by Type of Gas by State and Company (Continued)**  
(Million Cubic Feet)

| State                                     | 1989 Year-End Reserves |                |           | Production |
|---|------------------------|----------------|-----------|------------|
|   | Total                  | Non-associated | Other     |            |
| Undesignated <sup>c</sup>                 |                        |                |           |            |
| Questar Pipeline Company                  | 19,624                 | 19,624         | 0         | 0          |
| Southern Natural Gas Co. <sup>a</sup>     | 15,289                 | 15,289         | 0         | 0          |
| Texas Gas Transmission Corp. <sup>b</sup> | 106,241                | 106,241        | 0         | 0          |
| <b>Undesignated Total</b>                 | 1,459,565              | 1,459,565      | 0         | 84         |
| <b>Total All Companies</b>                | 37,685,381             | 34,064,435     | 3,620,946 | 4,843,332  |

<sup>a</sup> Companies with over 900 billion cubic feet of domestic in-the-ground reserves at the inception of the Form 15 report or date of first filing.

<sup>b</sup> Warranty reserves are reserves guaranteed by contract but not supported by dedication of specific approved sources of supply.

<sup>c</sup> Includes reserves in underground storage which were reported without a State designation.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989**  
(Million Cubic Feet)

| State             | Year | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P* Ratio |
|-------------------|------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|
| Alabama           | 1963 | 12                | 0                                    | 13                | 0                                   | 0.9        |
|                   | 1964 | 240               | 240                                  | 12                | 228                                 | 20.0       |
|                   | 1965 | 201               | 7                                    | 46                | -39                                 | 4.4        |
|                   | 1966 | 199               | 12                                   | 14                | -2                                  | 14.2       |
|                   | 1967 | 198               | 0                                    | 1                 | -1                                  | 198.0      |
|                   | 1968 | 0                 | -197                                 | 1                 | -196                                | .0         |
|                   | 1969 | 1,400             | 1,400                                | 0                 | 1,400                               | .0         |
|                   | 1970 | 1,400             | 0                                    | 0                 | 0                                   | .0         |
|                   | 1971 | 51,765            | 50,365                               | 0                 | 50,365                              | .0         |
|                   | 1972 | 137,410           | 86,431                               | 786               | 85,645                              | 174.8      |
|                   | 1973 | 116,416           | -18,728                              | 2,266             | -20,994                             | 51.4       |
|                   | 1974 | 110,719           | -400                                 | 5,297             | -5,697                              | 20.9       |
|                   | 1975 | 95,150            | -10,089                              | 5,480             | -15,569                             | 17.4       |
|                   | 1976 | 92,434            | 3,085                                | 5,801             | -2,716                              | 15.9       |
|                   | 1977 | 77,720            | -6,009                               | 8,705             | -14,714                             | 8.9        |
|                   | 1978 | 72,407            | 7,946                                | 13,259            | -5,313                              | 5.5        |
|                   | 1979 | 159,013           | 103,916                              | 17,310            | 86,606                              | 9.2        |
|                   | 1980 | 155,576           | 33,155                               | 36,592            | -3,437                              | 4.3        |
|                   | 1981 | 176,565           | 61,856                               | 40,867            | 20,989                              | 4.3        |
|                   | 1982 | 145,743           | 8,131                                | 38,953            | -30,822                             | 3.7        |
|                   | 1983 | 192,535           | 76,871                               | 30,079            | 46,792                              | 6.4        |
|                   | 1984 | 145,678           | -13,204                              | 33,653            | -46,857                             | 4.3        |
|                   | 1985 | 178,606           | 69,029                               | 36,101            | 32,928                              | 4.9        |
|                   | 1986 | 168,152           | 15,426                               | 25,880            | -10,454                             | 6.5        |
|                   | 1987 | 114,105           | -26,520                              | 27,527            | -54,047                             | 4.1        |
|                   | 1988 | 111,617           | 28,223                               | 30,711            | -2,488                              | 3.6        |
|                   | 1989 | 217,364           | 140,167                              | 34,420            | 105,747                             | 6.3        |
| Total (1963-1989) |      | --                | 611,113                              | 393,761           | 217,352                             | --         |
| Percent Change    |      | 1,811,266.7       | --                                   | 264,669.2         | --                                  | --         |
| Arizona           | 1963 | 26,400            | 0                                    | 1,300             | 0                                   | 20.3       |
|                   | 1964 | 21,000            | -3,900                               | 1,500             | -5,400                              | 14.0       |
|                   | 1965 | 19,200            | 0                                    | 1,800             | -1,800                              | 10.7       |
|                   | 1966 | 20,400            | 2,900                                | 1,700             | 1,200                               | 12.0       |
|                   | 1967 | 19,100            | 0                                    | 1,300             | -1,300                              | 14.7       |
|                   | 1968 | 18,200            | 0                                    | 900               | -900                                | 20.2       |
|                   | 1969 | 13,100            | -4,000                               | 1,100             | -5,100                              | 11.9       |
|                   | 1970 | 11,900            | 0                                    | 1,200             | -1,200                              | 9.9        |
|                   | 1971 | 11,100            | 0                                    | 800               | -800                                | 13.9       |
|                   | 1972 | 10,600            | 0                                    | 500               | -500                                | 21.2       |
|                   | 1973 | 698               | -9,700                               | 202               | -9,902                              | 3.5        |
|                   | 1987 | 50                | -575                                 | 73                | -648                                | .7         |
|                   | 1988 | 846               | 805                                  | 9                 | 796                                 | 94.0       |
|                   | 1989 | 93                | -740                                 | 13                | -753                                | 7.2        |
| Total (1963-1989) |      | --                | -15,210                              | 11,097            | -26,307                             | --         |
| Percent Change    |      | -99.6             | --                                   | -99.0             | --                                  | --         |
| Arkansas          | 1963 | 1,143,481         | 0                                    | 47,190            | 0                                   | 24.2       |
|                   | 1964 | 1,336,350         | 240,653                              | 47,784            | 192,869                             | 28.0       |
|                   | 1965 | 1,578,888         | 296,758                              | 54,220            | 242,538                             | 29.1       |
|                   | 1966 | 1,699,979         | 198,150                              | 77,059            | 121,091                             | 22.1       |
|                   | 1967 | 1,903,551         | 294,286                              | 90,714            | 203,572                             | 21.0       |
|                   | 1968 | 1,884,438         | 94,242                               | 113,355           | -19,113                             | 16.6       |
|                   | 1969 | 1,780,019         | 33,941                               | 138,360           | -104,419                            | 12.9       |
|                   | 1970 | 1,727,915         | 91,999                               | 144,103           | -52,104                             | 12.0       |
|                   | 1971 | 1,700,972         | 104,592                              | 131,535           | -26,943                             | 12.9       |
|                   | 1972 | 1,709,983         | 136,101                              | 127,090           | 9,011                               | 13.5       |
|                   | 1973 | 1,719,005         | 131,247                              | 122,225           | 9,022                               | 14.1       |
|                   | 1974 | 1,631,016         | -446                                 | 87,543            | -87,989                             | 18.6       |
|                   | 1975 | 1,546,842         | -8,087                               | 76,087            | -84,174                             | 20.3       |
|                   | 1976 | 1,510,634         | 34,598                               | 70,806            | -36,208                             | 21.3       |
|                   | 1977 | 1,466,949         | 31,309                               | 74,994            | -43,685                             | 19.6       |
|                   | 1978 | 1,318,789         | -80,352                              | 87,808            | -148,160                            | 15.0       |
|                   | 1979 | 1,284,003         | 42,424                               | 77,210            | -34,786                             | 16.6       |
|                   | 1980 | 1,225,663         | 13,256                               | 71,596            | -58,340                             | 17.1       |
|                   | 1981 | 1,289,247         | 130,727                              | 67,143            | 63,584                              | 19.2       |
|                   | 1982 | 1,346,979         | 145,493                              | 87,761            | 57,732                              | 15.3       |
|                   | 1983 | 1,396,771         | 128,954                              | 79,162            | 49,792                              | 17.6       |
|                   | 1984 | 1,388,472         | 75,231                               | 83,534            | -8,299                              | 16.6       |
|                   | 1985 | 1,364,442         | 90,486                               | 114,516           | -24,030                             | 11.9       |
|                   | 1986 | 1,399,368         | 173,629                              | 138,903           | 34,926                              | 10.1       |
|                   | 1987 | 1,421,750         | 189,267                              | 166,885           | 22,382                              | 8.5        |
|                   | 1988 | 1,454,149         | 201,977                              | 169,578           | 32,399                              | 8.6        |

Note: Footnotes appear at the end of the table

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State             | Year | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P Ratio |
|-------------------|------|-------------------|--------------------------------------|-------------------|-------------------------------------|-----------|
| Arkansas          | 1989 | 1,856,292         | 568,895                              | 166,752           | 402,143                             | 11.1      |
| Total (1963-1989) |      | --                | 3,579,534                            | 2,666,723         | 712,811                             | --        |
| Percent Change    |      | 62.3              | --                                   | 253.4             | --                                  | --        |
| California        | 1984 | 328,108           | 328,108                              | 0                 | 328,108                             | .0        |
|                   | 1985 | 286,959           | -41,149                              | 0                 | -41,149                             | .0        |
|                   | 1986 | 251,721           | -35,238                              | 0                 | -35,238                             | .0        |
|                   | 1987 | 116,244           | -114,746                             | 20,731            | -135,477                            | 5.6       |
|                   | 1988 | 258,912           | 170,357                              | 27,689            | 142,668                             | 9.4       |
|                   | 1989 | 229,942           | -4,461                               | 24,509            | -28,970                             | 9.4       |
| Total (1963-1989) |      | --                | 302,871                              | 72,929            | 229,942                             | --        |
| Percent Change    |      | -29.9             | --                                   | --                | --                                  | --        |
| Colorado          | 1963 | 1,030,172         | 0                                    | 40,174            | 0                                   | 25.6      |
|                   | 1964 | 1,040,997         | 52,969                               | 42,144            | 10,825                              | 24.7      |
|                   | 1965 | 1,438,536         | 446,551                              | 49,012            | 397,539                             | 29.4      |
|                   | 1966 | 1,730,282         | 350,064                              | 58,318            | 291,746                             | 29.7      |
|                   | 1967 | 1,693,474         | 28,583                               | 65,391            | -36,808                             | 25.9      |
|                   | 1968 | 1,703,917         | 84,874                               | 74,431            | 10,443                              | 22.9      |
|                   | 1969 | 1,636,648         | 7,733                                | 75,002            | -67,269                             | 21.8      |
|                   | 1970 | 1,986,609         | 430,847                              | 80,886            | 349,961                             | 24.6      |
|                   | 1971 | 1,902,460         | -4,080                               | 80,069            | -84,149                             | 23.8      |
|                   | 1972 | 1,797,207         | -22,117                              | 83,136            | -105,253                            | 21.0      |
|                   | 1973 | 1,974,426         | 279,073                              | 101,854           | 177,219                             | 19.4      |
|                   | 1974 | 1,700,975         | -169,958                             | 103,493           | -273,451                            | 18.4      |
|                   | 1975 | 1,875,520         | 310,137                              | 135,592           | 174,545                             | 13.8      |
|                   | 1976 | 1,652,940         | -84,285                              | 138,295           | -222,580                            | 12.0      |
|                   | 1977 | 1,789,280         | 283,423                              | 147,083           | 136,340                             | 12.2      |
|                   | 1978 | 1,820,473         | 181,618                              | 150,425           | 31,193                              | 12.1      |
|                   | 1979 | 2,102,443         | 437,049                              | 153,079           | 281,970                             | 13.6      |
|                   | 1980 | 2,215,759         | 270,701                              | 157,385           | 113,316                             | 14.1      |
|                   | 1981 | 1,702,316         | -354,804                             | 158,639           | -513,443                            | 10.7      |
|                   | 1982 | 1,687,950         | 146,473                              | 160,839           | -14,366                             | 10.5      |
|                   | 1983 | 1,716,983         | 151,073                              | 122,040           | 29,033                              | 14.1      |
|                   | 1984 | 1,554,239         | -46,482                              | 116,262           | -162,744                            | 13.4      |
|                   | 1985 | 1,513,729         | 54,670                               | 95,180            | -40,510                             | 15.9      |
|                   | 1986 | 1,469,350         | 36,567                               | 80,946            | -44,379                             | 18.2      |
|                   | 1987 | 1,265,922         | -113,454                             | 69,974            | -183,428                            | 18.4      |
|                   | 1988 | 829,242           | -388,635                             | 68,045            | -456,680                            | 12.2      |
|                   | 1989 | 488,593           | -297,978                             | 42,671            | -340,649                            | 11.5      |
| Total (1963-1989) |      | --                | 2,070,612                            | 2,612,191         | -541,579                            | --        |
| Percent Change    |      | -52.6             | --                                   | 6.2               | --                                  | --        |
| Florida           | 1970 | 11,998            | 12,000                               | 2                 | 11,998                              | 5,999.0   |
|                   | 1971 | 359,309           | 348,000                              | 689               | 347,311                             | 521.5     |
|                   | 1972 | 355,296           | 9,103                                | 13,116            | -4,013                              | 27.1      |
|                   | 1973 | 314,560           | -14,003                              | 26,733            | -40,736                             | 11.8      |
|                   | 1974 | 259,535           | -28,087                              | 26,938            | -55,025                             | 9.6       |
|                   | 1975 | 233,475           | -5,574                               | 20,486            | -26,060                             | 11.4      |
|                   | 1976 | 217,340           | 0                                    | 16,135            | -16,135                             | 13.5      |
|                   | 1977 | 100,332           | -100,002                             | 17,006            | -117,008                            | 5.9       |
|                   | 1978 | 82,014            | 121                                  | 18,439            | -18,318                             | 4.4       |
|                   | 1979 | 64,193            | 0                                    | 17,821            | -17,821                             | 3.6       |
|                   | 1980 | 38,534            | -10,663                              | 14,996            | -25,659                             | 2.6       |
|                   | 1981 | 25,802            | -3,073                               | 9,659             | -12,732                             | 2.7       |
|                   | 1982 | 24,782            | 6,704                                | 7,724             | -1,020                              | 3.2       |
|                   | 1983 | 49,506            | 31,109                               | 6,385             | 24,724                              | 7.8       |
|                   | 1984 | 46,540            | -51                                  | 2,915             | -2,966                              | 16.0      |
|                   | 1985 | 55,130            | 11,359                               | 2,769             | 8,590                               | 19.9      |
|                   | 1986 | 46,529            | -6,713                               | 1,888             | -8,601                              | 24.6      |
|                   | 1987 | 13,641            | -30,699                              | 2,189             | -32,888                             | 6.2       |
|                   | 1988 | 10,194            | -1,409                               | 2,038             | -3,447                              | 5.0       |
|                   | 1989 | 9,257             | 540                                  | 1,477             | -937                                | 6.3       |
| Total (1963-1989) |      | --                | 218,662                              | 209,405           | 9,257                               | --        |
| Percent Change    |      | -22.8             | --                                   | 73,750.0          | --                                  | --        |

Note: Footnotes appear at the end of the table

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State             | Year              | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P* Ratio |    |
|-------------------|-------------------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|----|
| Idaho             | 1981              | 0                 | 524                                  | 524               | 0                                   | 0.0        |    |
|                   | 1982              | 0                 | 78                                   | 78                | 0                                   | .0         |    |
|                   | Total (1963-1989) | --                | 602                                  | 602               | --                                  | --         |    |
| Percent Change    | --                | --                | --                                   | -100.0            | --                                  | --         |    |
| Illinois          | 1963              | 1,596             | 0                                    | 428               | 0                                   | 3.7        |    |
|                   | 1964              | 0                 | -1,198                               | 398               | -1,596                              | .0         |    |
|                   | 1972              | 266               | 361                                  | 95                | 266                                 | 2.8        |    |
|                   | 1973              | 0                 | -197                                 | 69                | -266                                | .0         |    |
|                   | 1976              | 0                 | 131                                  | 131               | 0                                   | .0         |    |
|                   | 1978              | 534               | 726                                  | 192               | 534                                 | 2.8        |    |
|                   | 1979              | 251               | -97                                  | 186               | -283                                | 1.3        |    |
|                   | 1980              | 60,105            | 60,095                               | 241               | 59,854                              | 249.4      |    |
|                   | 1981              | 5,864             | -54,046                              | 195               | -54,241                             | 30.1       |    |
|                   | 1982              | 5,988             | 600                                  | 476               | 124                                 | 12.6       |    |
|                   | 1983              | 4,342             | -1,412                               | 234               | -1,646                              | 18.6       |    |
|                   | 1984              | 4,548             | 423                                  | 217               | 206                                 | 21.0       |    |
|                   | 1985              | 8,339             | 5,010                                | 1,219             | 3,791                               | 6.8        |    |
|                   | 1986              | 8,021             | 5,423                                | 5,741             | -318                                | 1.4        |    |
|                   | 1987              | 25,834            | 32,311                               | 14,498            | 17,813                              | 1.6        |    |
|                   | 1988              | 9,374             | -1,061                               | 15,399            | -16,460                             | .6         |    |
|                   | 1989              | 2,875             | -5,382                               | 1,117             | -6,499                              | 2.6        |    |
|                   | Total (1963-1989) | --                | 41,687                               | 40,408            | 1,279                               | --         | -- |
|                   | Percent Change    | 80.1              | --                                   | 161.0             | --                                  | --         | -- |
| Indiana           | 1978              | 120               | 153                                  | 33                | 120                                 | 3.6        |    |
|                   | 1979              | 1,668             | 1,714                                | 166               | 1,548                               | 10.0       |    |
|                   | 1980              | 253,778           | 261,697                              | 9,587             | 252,110                             | 26.5       |    |
|                   | 1981              | 117,249           | -130,367                             | 6,162             | -136,529                            | 19.0       |    |
|                   | 1982              | 814               | -116,397                             | 38                | -116,435                            | 21.4       |    |
|                   | 1983              | 398               | -408                                 | 8                 | -416                                | 49.8       |    |
|                   | 1984              | 13                | -385                                 | 0                 | -385                                | .0         |    |
|                   | 1988              | 0                 | -11                                  | 2                 | -13                                 | .0         |    |
|                   | 1989              | 0                 | 1                                    | 1                 | 0                                   | .0         |    |
|                   | Total (1963-1989) | --                | 15,997                               | 15,997            | --                                  | --         | -- |
|                   | Percent Change    | -100.0            | --                                   | -97.0             | --                                  | --         | -- |
| Iowa              | 1980              | 53,636            | 53,636                               | 0                 | 53,636                              | .0         |    |
|                   | 1987              | 0                 | -17,734                              | 35,902            | -53,636                             | .0         |    |
|                   | 1988              | 12,864            | 39,784                               | 26,920            | 12,864                              | .5         |    |
| Total (1963-1989) | --                | 75,686            | 62,822                               | 12,864            | --                                  | --         |    |
| Percent Change    | -100.0            | --                | --                                   | --                | --                                  | --         |    |
| Kansas            | 1963              | 15,414,829        | 0                                    | 633,661           | 0                                   | 24.3       |    |
|                   | 1964              | 15,172,476        | 415,822                              | 658,175           | -242,353                            | 23.1       |    |
|                   | 1965              | 14,733,216        | 223,113                              | 662,373           | -439,260                            | 22.2       |    |
|                   | 1966              | 14,130,876        | 96,987                               | 699,327           | -602,340                            | 20.2       |    |
|                   | 1967              | 13,748,844        | 334,322                              | 716,354           | -382,032                            | 19.2       |    |
|                   | 1968              | 13,911,541        | 843,192                              | 680,495           | 162,697                             | 20.4       |    |
|                   | 1969              | 13,453,114        | 269,893                              | 728,320           | -458,427                            | 18.5       |    |
|                   | 1970              | 13,003,378        | 279,017                              | 728,753           | -449,736                            | 17.8       |    |
|                   | 1971              | 12,472,320        | 178,356                              | 709,414           | -531,058                            | 17.6       |    |
|                   | 1972              | 11,945,000        | 182,875                              | 710,195           | -527,320                            | 16.8       |    |
|                   | 1973              | 11,351,124        | 132,431                              | 726,307           | -593,876                            | 15.6       |    |
|                   | 1974              | 11,273,113        | 635,968                              | 713,979           | -78,011                             | 15.8       |    |
|                   | 1975              | 11,062,302        | 479,981                              | 690,792           | -210,811                            | 16.0       |    |
|                   | 1976              | 10,858,348        | 477,044                              | 680,998           | -203,954                            | 15.9       |    |
|                   | 1977              | 10,650,682        | 431,830                              | 639,496           | -207,666                            | 16.7       |    |
|                   | 1978              | 10,151,516        | 199,024                              | 698,190           | -499,166                            | 14.5       |    |
|                   | 1979              | 9,862,380         | 364,332                              | 653,468           | -289,136                            | 15.1       |    |
|                   | 1980              | 9,517,351         | 221,350                              | 566,379           | -345,029                            | 16.8       |    |
|                   | 1981              | 9,108,891         | 63,607                               | 472,067           | -408,460                            | 19.3       |    |
|                   | 1982              | 9,961,026         | 1,163,084                            | 310,940           | 852,135                             | 32.0       |    |
|                   | 1983              | 9,751,636         | 96,453                               | 299,843           | -203,390                            | 32.5       |    |
| 1984              | 9,523,422         | 145,132           | 379,346                              | -234,214          | 25.1                                |            |    |
| 1985              | 9,065,960         | -49,826           | 407,636                              | -457,462          | 22.2                                |            |    |
| 1986              | 9,091,941         | 385,174           | 359,193                              | 25,981            | 25.3                                |            |    |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State              | Year              | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P* Ratio |
|--------------------|-------------------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|
| Kansas             | 1987              | 4,946,583         | -3,921,454                           | 223,904           | -4,145,358                          | 22.1       |
|                    | 1988              | 3,834,970         | -944,274                             | 167,339           | -1,111,613                          | 22.9       |
|                    | 1989              | 3,090,449         | -556,743                             | 187,778           | -744,521                            | 16.5       |
|                    | Total (1963-1989) | --                | 2,146,690                            | 14,471,070        | -12,324,380                         | --         |
| Percent Change     |                   | -80.0             | --                                   | -70.4             | --                                  | --         |
| Kentucky           | 1963              | 1,027,086         | 0                                    | 66,165            | 0                                   | 15.5       |
|                    | 1964              | 1,054,272         | 97,736                               | 70,550            | 27,186                              | 14.9       |
|                    | 1965              | 1,049,127         | 72,540                               | 77,685            | -5,145                              | 13.5       |
|                    | 1966              | 1,033,140         | 65,006                               | 80,993            | -15,987                             | 12.8       |
|                    | 1967              | 1,062,492         | 114,865                              | 85,513            | 29,352                              | 12.4       |
|                    | 1968              | 1,023,815         | 52,279                               | 90,956            | -38,677                             | 11.3       |
|                    | 1969              | 952,167           | 2,145                                | 73,793            | -71,648                             | 12.9       |
|                    | 1970              | 952,523           | 68,860                               | 68,504            | 356                                 | 13.9       |
|                    | 1971              | 946,960           | 59,061                               | 64,624            | -5,563                              | 14.7       |
|                    | 1972              | 535,127           | -343,665                             | 68,168            | -411,833                            | 7.9        |
|                    | 1973              | 505,612           | 34,716                               | 64,231            | -29,515                             | 7.9        |
|                    | 1974              | 481,124           | 40,670                               | 65,158            | -24,488                             | 7.4        |
|                    | 1975              | 453,776           | 35,933                               | 63,281            | -27,348                             | 7.2        |
|                    | 1976              | 471,498           | 79,093                               | 61,371            | 17,722                              | 7.7        |
|                    | 1977              | 437,199           | 27,070                               | 61,369            | -34,299                             | 7.1        |
|                    | 1978              | 397,996           | 11,387                               | 50,590            | -39,203                             | 7.9        |
|                    | 1979              | 429,890           | 72,753                               | 40,859            | 31,894                              | 10.5       |
|                    | 1980              | 374,922           | -7,413                               | 47,555            | -54,968                             | 7.9        |
|                    | 1981              | 406,165           | 81,285                               | 50,042            | 31,243                              | 8.1        |
|                    | 1982              | 417,357           | 49,719                               | 38,527            | 11,192                              | 10.8       |
|                    | 1983              | 429,596           | 44,900                               | 32,661            | 12,239                              | 13.2       |
|                    | 1984              | 438,036           | 55,678                               | 47,238            | 8,440                               | 9.3        |
|                    | 1985              | 633,523           | 240,945                              | 45,458            | 195,487                             | 13.9       |
|                    | 1986              | 703,237           | 113,583                              | 43,869            | 69,714                              | 16.0       |
|                    | 1987              | 703,294           | 46,461                               | 46,404            | 57                                  | 15.2       |
|                    | 1988              | 671,686           | 16,070                               | 47,678            | -31,608                             | 14.1       |
| 1989               | 597,443           | -33,554           | 40,689                               | -74,243           | 14.7                                |            |
| Total (1963-1989)  |                   | --                | 1,098,123                            | 1,527,766         | -429,643                            | --         |
| Percent Change     |                   | -41.8             | --                                   | -38.5             | --                                  | --         |
| Louisiana          | 1963              | 71,660,292        | 0                                    | 3,232,917         | 0                                   | 22.2       |
|                    | 1964              | 70,930,073        | 2,756,029                            | 3,486,248         | -730,219                            | 20.3       |
|                    | 1965              | 73,485,800        | 6,240,087                            | 3,684,360         | 2,555,727                           | 19.9       |
|                    | 1966              | 74,304,553        | 4,918,468                            | 4,097,715         | 818,753                             | 18.1       |
|                    | 1967              | 73,249,558        | 3,373,110                            | 4,428,105         | -1,054,995                          | 16.5       |
|                    | 1968              | 72,383,868        | 3,975,226                            | 4,840,916         | -865,690                            | 15.0       |
|                    | 1969              | 73,305,862        | 6,378,285                            | 5,456,291         | 921,994                             | 13.4       |
|                    | 1970              | 69,731,821        | 2,401,855                            | 5,975,896         | -3,574,041                          | 11.7       |
|                    | 1971              | 63,895,982        | 213,889                              | 6,049,728         | -5,835,839                          | 10.6       |
|                    | 1972              | 61,490,159        | 4,147,411                            | 6,553,234         | -2,405,823                          | 9.4        |
|                    | 1973              | 53,715,078        | -1,729,838                           | 6,045,243         | -7,775,081                          | 8.9        |
|                    | 1974              | 47,835,241        | -82,278                              | 5,797,559         | -5,879,837                          | 8.3        |
|                    | 1975              | 40,449,235        | -1,908,293                           | 5,477,713         | -7,386,006                          | 7.4        |
|                    | 1976              | 36,510,313        | 1,369,878                            | 5,308,800         | -3,938,922                          | 6.9        |
|                    | 1977              | 34,363,814        | 1,012,665                            | 5,159,164         | -2,146,499                          | 6.7        |
|                    | 1978              | 33,004,924        | 3,787,824                            | 5,146,714         | -1,358,890                          | 6.4        |
|                    | 1979              | 32,431,672        | 4,637,139                            | 5,210,191         | -573,052                            | 6.2        |
|                    | 1980              | 31,209,323        | 3,938,655                            | 5,161,204         | -1,222,549                          | 6.0        |
|                    | 1981              | 29,522,380        | 3,577,534                            | 5,264,477         | -1,686,943                          | 5.6        |
|                    | 1982              | 28,184,859        | 3,421,905                            | 4,759,426         | -1,337,521                          | 5.9        |
|                    | 1983              | 26,246,763        | 2,092,480                            | 4,031,576         | -1,938,096                          | 6.5        |
|                    | 1984              | 24,230,485        | 2,546,400                            | 4,562,678         | -2,016,278                          | 5.3        |
|                    | 1985              | 21,598,097        | 961,199                              | 3,593,587         | -2,632,388                          | 6.0        |
|                    | 1986              | 19,570,383        | 1,025,358                            | 3,053,072         | -2,027,714                          | 6.4        |
|                    | 1987              | 15,434,292        | -1,630,818                           | 2,505,273         | -4,136,091                          | 6.2        |
|                    | 1988              | 11,689,297        | -1,518,138                           | 2,226,857         | -3,744,995                          | 5.2        |
| 1989               | 10,285,317        | 293,664           | 1,697,644                            | -1,403,980        | 6.1                                 |            |
| Total (1963-1989)  |                   | --                | 58,198,696                           | 119,573,671       | -61,374,975                         | --         |
| Percent Change     |                   | -85.6             | --                                   | -47.5             | --                                  | --         |
| Northern Louisiana | 1963              | 5,111,996         | 0                                    | 509,312           | 0                                   | 10.0       |
|                    | 1964              | 4,966,615         | 392,070                              | 537,451           | -145,381                            | 9.2        |
|                    | 1965              | 4,747,032         | 267,238                              | 486,821           | -219,583                            | 9.8        |
|                    | 1966              | 4,485,006         | 212,329                              | 474,355           | -262,026                            | 9.5        |

Note. Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                                    | Year | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change In Reserves Gain or Loss | R/P <sup>a</sup> Ratio |
|--|------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------------------|
| Northern Louisiana                       |      |                   |                                      |                   |                                     |                        |
|  | 1967 | 4,190,003         | 162,050                              | 457,053           | -295,003                            | 9.2                    |
|  | 1968 | 3,709,615         | -52,900                              | 427,488           | -480,388                            | 8.7                    |
|  | 1969 | 3,460,367         | 161,250                              | 410,498           | -249,248                            | 8.4                    |
|  | 1970 | 2,832,106         | -145,171                             | 382,690           | -527,861                            | 7.7                    |
|  | 1971 | 2,452,292         | -165,398                             | 314,876           | -480,214                            | 7.8                    |
|  | 1972 | 2,347,550         | 219,040                              | 323,782           | -104,742                            | 7.3                    |
|  | 1973 | 2,030,616         | -29,112                              | 287,822           | -316,934                            | 7.1                    |
|  | 1974 | 1,758,235         | -13,165                              | 259,216           | -272,381                            | 6.8                    |
|  | 1975 | 1,524,887         | -18,104                              | 215,244           | -233,348                            | 7.1                    |
|  | 1976 | 1,565,816         | 243,940                              | 203,011           | 40,929                              | 7.7                    |
|  | 1977 | 1,517,543         | 137,389                              | 185,662           | -48,273                             | 8.2                    |
|  | 1978 | 1,430,633         | 142,820                              | 229,730           | -86,910                             | 6.2                    |
|  | 1979 | 1,429,924         | 184,165                              | 184,874           | -709                                | 7.7                    |
|  | 1980 | 1,378,395         | 153,305                              | 204,834           | -51,529                             | 6.7                    |
|  | 1981 | 1,965,194         | 810,868                              | 224,069           | 586,799                             | 8.8                    |
|  | 1982 | 2,168,026         | 428,107                              | 225,275           | 202,832                             | 9.6                    |
|  | 1983 | 2,231,416         | 270,570                              | 207,180           | 63,390                              | 10.8                   |
|  | 1984 | 2,152,622         | 161,153                              | 239,947           | -78,794                             | 9.0                    |
|  | 1985 | 1,887,476         | -19,038                              | 246,108           | -265,146                            | 7.7                    |
|  | 1986 | 1,556,594         | -101,554                             | 229,328           | -330,882                            | 6.8                    |
|  | 1987 | 1,368,610         | -37,607                              | 150,377           | -187,984                            | 9.1                    |
|  | 1988 | 1,216,031         | -7,094                               | 145,485           | -152,579                            | 8.4                    |
|  | 1989 | 1,099,590         | 8,084                                | 124,525           | -116,441                            | 8.8                    |
| Total (1963-1989)                        |      | --                | 3,365,295                            | 7,377,701         | -4,012,406                          | --                     |
| Percent Change                           |      | -78.5             | --                                   | -75.6             | --                                  | --                     |
| Southern Louisiana Onshore               |      |                   |                                      |                   |                                     |                        |
|  | 1963 | 48,126,622        | 0                                    | 2,087,078         | 0                                   | 23.1                   |
|  | 1964 | 46,791,437        | 914,862                              | 2,250,047         | -1,335,185                          | 20.8                   |
|  | 1965 | 46,674,930        | 2,283,000                            | 2,399,507         | -116,507                            | 19.5                   |
|  | 1966 | 45,080,005        | 1,030,378                            | 2,625,303         | -1,594,925                          | 17.2                   |
|  | 1967 | 41,945,173        | -443,269                             | 2,691,563         | -3,134,832                          | 15.6                   |
|  | 1968 | 39,509,326        | 518,956                              | 2,954,803         | -2,435,847                          | 13.4                   |
|  | 1969 | 36,968,231        | 656,421                              | 3,197,516         | -2,541,095                          | 11.6                   |
|  | 1970 | 32,964,091        | -775,971                             | 3,228,169         | -4,004,140                          | 10.2                   |
|  | 1971 | 29,351,594        | -465,352                             | 3,147,145         | -3,612,497                          | 9.3                    |
|  | 1972 | 27,051,383        | 1,145,557                            | 3,445,768         | -2,300,211                          | 7.9                    |
|  | 1973 | 21,182,567        | -3,127,949                           | 2,740,867         | -5,868,816                          | 7.7                    |
|  | 1974 | 19,014,294        | 268,589                              | 2,436,862         | -2,168,273                          | 7.8                    |
|  | 1975 | 16,297,476        | -765,911                             | 1,950,907         | -2,716,818                          | 8.4                    |
|  | 1976 | 13,238,160        | -1,398,671                           | 1,660,645         | -3,059,316                          | 8.0                    |
|  | 1977 | 10,350,722        | -1,399,828                           | 1,487,610         | -2,887,438                          | 7.0                    |
|  | 1978 | 6,791,456         | -2,476,380                           | 1,082,886         | -3,559,266                          | 6.3                    |
|  | 1979 | 6,256,936         | 369,176                              | 903,696           | -534,520                            | 6.9                    |
|  | 1980 | 6,219,172         | 808,935                              | 846,699           | -37,764                             | 7.3                    |
|  | 1981 | 6,118,337         | 918,173                              | 1,019,008         | -100,835                            | 6.0                    |
|  | 1982 | 5,625,036         | 392,469                              | 885,770           | -493,301                            | 6.4                    |
|  | 1983 | 4,926,449         | 25,886                               | 724,473           | -698,587                            | 6.8                    |
|  | 1984 | 4,542,069         | 393,195                              | 777,575           | -384,380                            | 5.8                    |
|  | 1985 | 3,659,210         | -308,976                             | 573,883           | -882,859                            | 6.4                    |
|  | 1986 | 3,781,353         | 550,310                              | 428,167           | 122,143                             | 8.8                    |
|  | 1987 | 2,994,045         | -377,137                             | 410,171           | -787,308                            | 7.3                    |
|  | 1988 | 2,184,550         | -477,267                             | 332,228           | -809,495                            | 6.6                    |
|  | 1989 | 1,831,260         | -111,093                             | 242,197           | -353,290                            | 7.6                    |
| Total (1963-1989)                        |      | --                | -1,851,897                           | 44,443,465        | -46,295,362                         | --                     |
| Percent Change                           |      | -96.2             | --                                   | -88.4             | --                                  | --                     |
| Southern Louisiana Warranty <sup>f</sup> |      |                   |                                      |                   |                                     |                        |
|  | 1981 | 1,464,489         | 1,704,742                            | 240,253           | 1,464,489                           | 6.1                    |
|  | 1982 | 1,234,976         | 0                                    | 229,513           | -229,513                            | 5.4                    |
|  | 1983 | 1,014,042         | 0                                    | 220,934           | -220,934                            | 4.6                    |
|  | 1984 | 794,166           | 0                                    | 219,876           | -219,876                            | 3.6                    |
|  | 1985 | 617,447           | 4,666                                | 181,385           | -176,719                            | 3.4                    |
|  | 1986 | 426,718           | -2,012                               | 188,717           | -190,729                            | 2.3                    |
|  | 1987 | 269,442           | 0                                    | 157,276           | -157,276                            | 1.7                    |
|  | 1988 | 117,376           | 0                                    | 152,066           | -152,066                            | .8                     |
|  | 1989 | 0                 | 11,513                               | 128,889           | -117,376                            | .0                     |
| Total (1963-1989)                        |      | --                | 1,718,909                            | 1,718,909         | --                                  | --                     |
| Percent Change                           |      | -100.0            | --                                   | -46.4             | --                                  | --                     |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                       | Year              | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P* Ratio |
|-----------------------------|-------------------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|
| Southern Louisiana Offshore |                   |                   |                                      |                   |                                     |            |
|                             | 1963              | 18,421,674        | 0                                    | 636,527           | 0                                   | 28.9       |
|                             | 1964              | 19,172,021        | 1,446,097                            | 698,750           | 750,347                             | 27.4       |
|                             | 1965              | 22,063,838        | 3,689,849                            | 798,032           | 2,891,817                           | 27.6       |
|                             | 1966              | 24,739,542        | 3,673,761                            | 998,057           | 2,675,704                           | 24.8       |
|                             | 1967              | 27,114,382        | 3,654,329                            | 1,279,489         | 2,374,840                           | 21.2       |
|                             | 1968              | 29,164,927        | 3,509,170                            | 1,458,625         | 2,050,545                           | 20.0       |
|                             | 1969              | 32,877,264        | 5,560,614                            | 1,848,277         | 3,712,337                           | 17.8       |
|                             | 1970              | 33,835,224        | 3,322,997                            | 2,365,037         | 957,960                             | 14.3       |
|                             | 1971              | 32,092,096        | 844,579                              | 2,587,707         | -1,743,128                          | 12.4       |
|                             | 1972              | 32,091,226        | 2,782,814                            | 2,783,684         | -870                                | 11.5       |
|                             | 1973              | 30,501,895        | 1,427,223                            | 3,016,554         | -1,589,331                          | 10.1       |
|                             | 1974              | 27,062,712        | -337,702                             | 3,101,481         | -3,439,183                          | 8.7        |
|                             | 1975              | 22,626,872        | -1,124,278                           | 3,311,562         | -4,435,840                          | 6.8        |
|                             | 1976              | 21,706,337        | 2,524,609                            | 3,445,144         | -920,535                            | 6.3        |
|                             | 1977              | 22,495,549        | 4,275,104                            | 3,485,892         | 789,212                             | 6.5        |
|                             | 1978              | 24,782,835        | 6,121,384                            | 3,834,098         | 2,287,286                           | 6.5        |
|                             | 1979              | 24,745,012        | 4,083,798                            | 4,121,621         | -37,823                             | 6.0        |
|                             | 1980              | 23,611,756        | 2,976,415                            | 4,109,671         | -1,133,256                          | 5.7        |
|                             | 1981              | 19,974,360        | 143,751                              | 3,781,147         | -3,637,396                          | 5.3        |
|                             | 1982              | 19,156,821        | 2,601,329                            | 3,418,868         | -817,539                            | 5.6        |
|                             | 1983              | 18,074,856        | 1,797,024                            | 2,878,989         | -1,081,965                          | 6.3        |
|                             | 1984              | 16,741,628        | 1,992,052                            | 3,325,280         | -1,333,228                          | 5.0        |
|                             | 1985              | 15,433,964        | 1,284,547                            | 2,592,211         | -1,307,664                          | 6.0        |
|                             | 1986              | 13,805,718        | 578,614                              | 2,206,860         | -1,628,246                          | 6.3        |
|                             | 1987              | 10,802,195        | -1,216,074                           | 1,787,449         | -3,003,523                          | 6.0        |
|                             | 1988              | 8,171,340         | -1,033,777                           | 1,597,078         | -2,630,855                          | 5.1        |
|                             | 1989              | 7,354,467         | 385,160                              | 1,202,033         | -816,873                            | 6.1        |
|                             | Total (1963-1989) | --                | 54,966,389                           | 66,033,596        | -11,067,207                         | --         |
|                             | Percent Change    | -60.1             | --                                   | 88.8              | --                                  | --         |
| Maryland                    |                   |                   |                                      |                   |                                     |            |
|                             | 1970              | 3,771             | 4,011                                | 240               | 3,771                               | 15.7       |
|                             | 1971              | 3,271             | -282                                 | 218               | -500                                | 15.0       |
|                             | 1972              | 3,027             | 0                                    | 244               | -244                                | 12.4       |
|                             | 1973              | 2,716             | -9                                   | 302               | -311                                | 9.0        |
|                             | 1974              | 2,639             | 61                                   | 138               | -77                                 | 19.1       |
|                             | 1975              | 968               | -1,575                               | 96                | -1,671                              | 10.1       |
|                             | 1976              | 611               | -278                                 | 79                | -357                                | 7.7        |
|                             | 1977              | 582               | 56                                   | 85                | -29                                 | 6.8        |
|                             | 1978              | 879               | 395                                  | 98                | 297                                 | 9.0        |
|                             | 1979              | 825               | 25                                   | 79                | -54                                 | 10.4       |
|                             | 1980              | 899               | 145                                  | 71                | 74                                  | 12.7       |
|                             | 1981              | 141,060           | 140,220                              | 59                | 140,161                             | 2,390.8    |
|                             | 1982              | 142,694           | 1,671                                | 37                | 1,634                               | 3,856.6    |
|                             | 1983              | 137,128           | -5,535                               | 31                | -5,566                              | 4,423.5    |
|                             | 1984              | 145,479           | 8,411                                | 60                | 8,351                               | 2,424.7    |
|                             | 1985              | 134,643           | 24,780                               | 35,616            | -10,836                             | 3.8        |
|                             | 1986              | 129,695           | -4,926                               | 22                | -4,948                              | 5,895.2    |
|                             | 1987              | 43,549            | -86,101                              | 45                | -86,146                             | 967.8      |
|                             | 1988              | 40,210            | 68,156                               | 71,495            | -3,339                              | .6         |
|                             | 1989              | 41,830            | 85,396                               | 83,776            | 1,620                               | .5         |
|                             | Total (1963-1989) | --                | 234,621                              | 192,791           | 41,830                              | --         |
|                             | Percent Change    | 1,009.3           | --                                   | 34,806.7          | --                                  | --         |
| Massachusetts               |                   |                   |                                      |                   |                                     |            |
|                             | 1987              | 0                 | 15,547                               | 15,547            | 0                                   | .0         |
|                             | 1988              | 0                 | 16,523                               | 16,523            | 0                                   | .0         |
|                             | 1989              | 0                 | 18,255                               | 18,255            | 0                                   | .0         |
|                             | Total (1963-1989) | --                | 50,325                               | 50,325            | --                                  | --         |
|                             | Percent Change    | --                | --                                   | 17.4              | --                                  | --         |
| Michigan                    |                   |                   |                                      |                   |                                     |            |
|                             | 1982              | 201,262           | 201,262                              | 0                 | 201,262                             | .0         |
|                             | 1983              | 156,871           | -44,391                              | 0                 | -44,391                             | .0         |
|                             | 1984              | 168,989           | 12,118                               | 0                 | 12,118                              | .0         |
|                             | 1985              | 158,644           | -10,345                              | 0                 | -10,345                             | .0         |
|                             | 1986              | 153,690           | -4,954                               | 0                 | -4,954                              | .0         |
|                             | 1987              | 152,754           | 780                                  | 1,716             | -936                                | 89.0       |
|                             | 1988              | 140,245           | -5,659                               | 6,850             | -12,509                             | 20.5       |
|                             | 1989              | 114,111           | -10,138                              | 15,996            | -26,134                             | 7.1        |
|                             | Total (1963-1989) | --                | 138,673                              | 24,562            | 114,111                             | --         |
|                             | Percent Change    | -43.3             | --                                   | --                | --                                  | --         |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State             | Year | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change In Reserves Gain or Loss | R/P* Ratio |
|-------------------|------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|
| Minnesota         | 1984 | 0                 | 3,335                                | 3,335             | 0                                   | 0.0        |
| Total (1963-1989) |      | --                | 3,335                                | 3,335             | --                                  | --         |
| Percent Change    |      | --                | --                                   | -100.0            | --                                  | --         |
| Mississippi       | 1963 | 1,914,258         | 0                                    | 157,428           | 0                                   | 12.2       |
|                   | 1964 | 1,786,481         | 15,475                               | 143,252           | -127,777                            | 12.5       |
|                   | 1965 | 1,227,967         | -429,155                             | 129,359           | -558,514                            | 9.5        |
|                   | 1966 | 1,298,576         | 204,700                              | 134,091           | 70,609                              | 9.7        |
|                   | 1967 | 1,239,900         | 60,025                               | 118,701           | -58,676                             | 10.4       |
|                   | 1968 | 1,099,883         | -11,810                              | 129,207           | -140,017                            | 8.6        |
|                   | 1969 | 1,000,511         | 25,179                               | 124,551           | -99,372                             | 0.0        |
|                   | 1970 | 828,217           | -56,210                              | 116,084           | -172,294                            | 7.1        |
|                   | 1971 | 692,896           | -33,699                              | 101,622           | -135,321                            | 6.8        |
|                   | 1972 | 514,097           | -102,520                             | 76,279            | -178,799                            | 6.7        |
|                   | 1973 | 437,457           | -3,945                               | 72,695            | -76,640                             | 6.0        |
|                   | 1974 | 303,511           | -69,895                              | 64,051            | -133,946                            | 4.7        |
|                   | 1975 | 272,866           | 14,334                               | 44,979            | -30,645                             | 6.1        |
|                   | 1976 | 229,333           | 81                                   | 43,614            | -43,533                             | 5.3        |
|                   | 1977 | 296,402           | 126,448                              | 59,379            | 67,069                              | 5.0        |
|                   | 1978 | 625,273           | 390,361                              | 61,490            | 328,871                             | 10.2       |
|                   | 1979 | 740,686           | 219,103                              | 103,690           | 115,413                             | 7.1        |
|                   | 1980 | 807,922           | 179,069                              | 111,833           | 67,236                              | 7.2        |
|                   | 1981 | 803,928           | 121,092                              | 125,086           | -3,994                              | 6.4        |
|                   | 1982 | 1,052,462         | 372,120                              | 123,586           | 248,534                             | 8.5        |
|                   | 1983 | 911,426           | -5,978                               | 135,058           | -141,036                            | 6.7        |
|                   | 1984 | 743,691           | -25,226                              | 142,509           | -167,735                            | 5.2        |
|                   | 1985 | 544,877           | -89,830                              | 108,984           | -198,814                            | 5.0        |
|                   | 1986 | 514,494           | 79,844                               | 110,227           | -30,383                             | 4.7        |
|                   | 1987 | 495,782           | 117,595                              | 136,307           | -18,712                             | 3.6        |
|                   | 1988 | 413,975           | 52,947                               | 134,754           | -81,807                             | 3.1        |
|                   | 1989 | 320,137           | 16,899                               | 110,737           | -93,838                             | 2.9        |
| Total (1963-1989) |      | --                | 1,167,004                            | 2,761,125         | -1,594,121                          | --         |
| Percent Change    |      | -83.3             | --                                   | -29.7             | --                                  | --         |
| Missouri          | 1989 | 13,258            | 22,841                               | 9,583             | 13,258                              | 1.4        |
| Total (1963-1989) |      | --                | 22,841                               | 9,583             | 13,258                              | --         |
| Percent Change    |      | --                | --                                   | --                | --                                  | --         |
| Montana           | 1963 | 209,731           | 0                                    | 4,583             | 0                                   | 45.8       |
|                   | 1964 | 215,928           | 11,016                               | 4,819             | 6,197                               | 44.8       |
|                   | 1965 | 234,251           | 23,357                               | 5,034             | 18,323                              | 46.5       |
|                   | 1966 | 241,337           | 11,707                               | 4,621             | 7,086                               | 52.2       |
|                   | 1967 | 248,832           | 11,447                               | 3,952             | 7,495                               | 63.0       |
|                   | 1968 | 302,851           | 57,943                               | 3,924             | 54,019                              | 77.2       |
|                   | 1969 | 305,464           | 11,401                               | 8,788             | 2,613                               | 34.8       |
|                   | 1970 | 298,364           | 519                                  | 7,619             | -7,100                              | 39.2       |
|                   | 1971 | 280,690           | -13,908                              | 3,766             | -17,674                             | 74.5       |
|                   | 1972 | 816,075           | 544,111                              | 8,726             | 535,385                             | 93.5       |
|                   | 1973 | 785,860           | -14,502                              | 15,713            | -30,215                             | 50.0       |
|                   | 1974 | 832,798           | 76,660                               | 29,722            | 46,938                              | 28.0       |
|                   | 1975 | 828,878           | 21,633                               | 25,553            | -3,920                              | 32.4       |
|                   | 1976 | 797,800           | -4,477                               | 26,601            | -31,078                             | 30.0       |
|                   | 1977 | 704,318           | -70,050                              | 23,432            | -93,482                             | 30.1       |
|                   | 1978 | 901,994           | 220,866                              | 23,190            | 197,676                             | 38.9       |
|                   | 1979 | 923,985           | 58,899                               | 36,908            | 21,991                              | 25.0       |
|                   | 1980 | 757,417           | -136,110                             | 30,458            | -166,568                            | 24.9       |
|                   | 1981 | 763,171           | 39,455                               | 33,701            | 5,754                               | 22.6       |
|                   | 1982 | 723,238           | -8,091                               | 31,842            | -39,933                             | 22.7       |
|                   | 1983 | 686,411           | -5,169                               | 31,658            | -36,827                             | 21.7       |
|                   | 1984 | 675,055           | 12,995                               | 24,351            | -11,356                             | 27.7       |
|                   | 1985 | 608,416           | -40,618                              | 18,021            | -66,639                             | 33.8       |
|                   | 1986 | 648,104           | 59,839                               | 20,151            | 39,688                              | 32.2       |
|                   | 1987 | 481,372           | -151,701                             | 15,031            | -166,732                            | 32.0       |
|                   | 1988 | 447,594           | -12,798                              | 20,980            | -33,778                             | 21.3       |
|                   | 1989 | 439,489           | 13,973                               | 22,078            | -8,105                              | 19.9       |
| Total (1963-1989) |      | --                | 710,397                              | 480,639           | 229,758                             | --         |
| Percent Change    |      | 109.5             | --                                   | 381.7             | --                                  | --         |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                     | Year       | Year End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change In Reserves Gain or Loss | R/P <sup>a</sup> Ratio |
|---------------------------|------------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------------------|
| Nebraska                  | 1963       | 66,136            | 0                                    | 9,040             | 0                                   | 7.3                    |
|                           | 1964       | 60,200            | 1,535                                | 7,471             | -5,936                              | 8.1                    |
|                           | 1965       | 58,950            | 6,080                                | 7,330             | -1,250                              | 8.0                    |
|                           | 1966       | 82,550            | 31,650                               | 8,050             | 23,600                              | 10.3                   |
|                           | 1967       | 77,039            | 1,878                                | 7,389             | -5,511                              | 10.4                   |
|                           | 1968       | 69,893            | -237                                 | 6,909             | -7,146                              | 10.1                   |
|                           | 1969       | 58,081            | -5,767                               | 6,045             | -11,812                             | 9.6                    |
|                           | 1970       | 54,293            | 1,966                                | 5,754             | -3,788                              | 9.4                    |
|                           | 1971       | 54,789            | 5,428                                | 4,932             | 496                                 | 11.1                   |
|                           | 1972       | 64,903            | 15,044                               | 4,930             | 10,114                              | 13.2                   |
|                           | 1973       | 67,830            | 7,716                                | 4,789             | 2,927                               | 14.2                   |
|                           | 1974       | 76,643            | 13,484                               | 4,671             | 8,813                               | 16.4                   |
|                           | 1975       | 74,375            | 1,555                                | 3,823             | -2,268                              | 19.5                   |
|                           | 1976       | 66,889            | -3,657                               | 3,829             | -7,486                              | 17.5                   |
|                           | 1977       | 70,535            | 9,012                                | 5,366             | 3,646                               | 13.1                   |
|                           | 1978       | 79,538            | 12,568                               | 3,565             | 9,003                               | 22.3                   |
|                           | 1979       | 87,650            | 11,757                               | 3,645             | 8,112                               | 24.0                   |
|                           | 1980       | 91,065            | 6,737                                | 3,322             | 3,415                               | 27.4                   |
|                           | 1981       | 97,454            | 9,950                                | 3,561             | 6,389                               | 27.4                   |
|                           | 1982       | 85,561            | -8,949                               | 2,944             | -11,893                             | 29.1                   |
|                           | 1983       | 83,027            | 470                                  | 3,004             | -2,534                              | 27.6                   |
| 1984                      | 91,353     | 11,873            | 3,547                                | 8,326             | 25.8                                |                        |
| 1985                      | 91,149     | 787               | 991                                  | -204              | 92.0                                |                        |
| 1986                      | 94,263     | 3,884             | 770                                  | 3,114             | 122.4                               |                        |
| 1987                      | 89,904     | -3,798            | 561                                  | -4,359            | 160.3                               |                        |
| 1988                      | 89,574     | 71                | 401                                  | -330              | 223.4                               |                        |
| 1989                      | 87,641     | -1,613            | 320                                  | -1,933            | 273.9                               |                        |
| Total (1963-1989)         | --         | --                | 129,424                              | 107,919           | 21,505                              | --                     |
| Percent Change            |            | 32.5              | --                                   | -96.5             | --                                  | --                     |
| New Mexico                | 1963       | 19,517,863        | 0                                    | 614,152           | 0                                   | 31.8                   |
|                           | 1964       | 19,190,056        | 355,182                              | 682,989           | -327,807                            | 28.1                   |
|                           | 1965       | 19,951,936        | 1,487,558                            | 725,678           | 761,880                             | 27.5                   |
|                           | 1966       | 20,052,828        | 903,660                              | 802,768           | 100,892                             | 25.0                   |
|                           | 1967       | 19,342,751        | 124,229                              | 834,306           | -710,077                            | 23.2                   |
|                           | 1968       | 18,919,609        | 514,187                              | 937,329           | -423,142                            | 20.2                   |
|                           | 1969       | 18,148,139        | 134,596                              | 908,066           | -773,470                            | 20.0                   |
|                           | 1970       | 17,308,112        | 88,253                               | 926,280           | -838,027                            | 18.7                   |
|                           | 1971       | 16,529,510        | 189,141                              | 967,743           | -778,602                            | 17.1                   |
|                           | 1972       | 15,997,299        | 497,052                              | 1,029,263         | -532,211                            | 15.5                   |
|                           | 1973       | 15,363,261        | 381,980                              | 1,016,018         | -634,038                            | 15.1                   |
|                           | 1974       | 14,475,058        | 134,787                              | 1,022,990         | -888,203                            | 14.1                   |
|                           | 1975       | 13,884,786        | 394,221                              | 984,493           | -590,272                            | 14.1                   |
|                           | 1976       | 13,354,680        | 457,297                              | 987,403           | -530,106                            | 13.5                   |
|                           | 1977       | 12,433,347        | -9,447                               | 911,886           | -921,333                            | 13.6                   |
|                           | 1978       | 13,320,812        | 1,842,384                            | 954,919           | 887,465                             | 13.9                   |
|                           | 1979       | 14,997,264        | 2,646,288                            | 989,836           | 1,676,452                           | 15.5                   |
|                           | 1980       | 14,805,420        | 744,461                              | 936,305           | -191,844                            | 15.8                   |
|                           | 1981       | 15,296,716        | 1,494,459                            | 1,003,163         | 491,296                             | 15.2                   |
|                           | 1982       | 14,806,070        | 316,078                              | 806,724           | -490,646                            | 18.4                   |
|                           | 1983       | 14,298,086        | 205,175                              | 713,159           | -507,984                            | 20.0                   |
| 1984                      | 13,759,477 | 197,607           | 736,216                              | -538,609          | 18.7                                |                        |
| 1985                      | 13,405,856 | 386,088           | 739,709                              | -353,621          | 18.1                                |                        |
| 1986                      | 13,157,863 | 235,946           | 483,939                              | -247,993          | 27.2                                |                        |
| 1987                      | 11,796,116 | -833,310          | 528,437                              | -1,361,747        | 22.3                                |                        |
| 1988                      | 7,278,832  | -4,203,244        | 314,040                              | -4,517,284        | 23.2                                |                        |
| 1989                      | 2,898,465  | -4,158,502        | 221,865                              | -4,380,367        | 13.1                                |                        |
| Total (1963-1989)         | --         | 4,526,126         | 21,145,524                           | -16,619,398       | --                                  |                        |
| Percent Change            |            | -85.1             | --                                   | -63.9             | --                                  |                        |
| New Mexico San Juan Basin | 1963       | 13,997,950        | 0                                    | 301,770           | 0                                   | 46.4                   |
|                           | 1964       | 13,871,671        | 229,861                              | 356,140           | -126,279                            | 39.0                   |
|                           | 1965       | 13,892,254        | 420,628                              | 400,045           | 20,583                              | 34.7                   |
|                           | 1966       | 13,872,853        | 424,557                              | 443,958           | -19,401                             | 31.2                   |
|                           | 1967       | 13,581,350        | 178,452                              | 469,955           | -291,503                            | 28.9                   |
|                           | 1968       | 13,249,352        | 188,431                              | 520,429           | -331,998                            | 25.5                   |
|                           | 1969       | 12,886,976        | 111,614                              | 473,990           | -362,376                            | 27.2                   |
|                           | 1970       | 12,266,900        | -151,176                             | 468,900           | -620,076                            | 26.2                   |
|                           | 1971       | 11,591,500        | -180,400                             | 495,000           | -675,400                            | 23.4                   |
|                           | 1972       | 11,582,500        | 523,600                              | 532,600           | -9,000                              | 21.7                   |
|                           | 1973       | 11,303,775        | 208,334                              | 487,059           | -278,725                            | 23.2                   |
| 1974                      | 10,545,647 | -278,486          | 479,642                              | -758,128          | 22.0                                |                        |
| 1975                      | 9,832,030  | -285,550          | 428,067                              | -713,617          | 23.0                                |                        |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                            | Year              | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P <sup>a</sup> Ratio |
|----------------------------------|-------------------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------------------|
| <b>New Mexico San Juan Basin</b> |                   |                   |                                      |                   |                                     |                        |
|                                  | 1976              | 10,152,752        | 787,212                              | 466,490           | 320,722                             | 21.8                   |
|                                  | 1977              | 9,305,892         | -414,343                             | 432,517           | -846,860                            | 21.5                   |
|                                  | 1978              | 10,024,879        | 1,195,012                            | 476,025           | 718,987                             | 21.1                   |
|                                  | 1979              | 11,800,229        | 2,270,115                            | 494,765           | 1,775,350                           | 23.9                   |
|                                  | 1980              | 11,700,459        | 404,405                              | 504,175           | -99,770                             | 23.2                   |
|                                  | 1981              | 11,687,319        | 491,983                              | 505,123           | -13,140                             | 23.1                   |
|                                  | 1982              | 11,469,966        | 163,635                              | 380,988           | -217,353                            | 30.1                   |
|                                  | 1983              | 11,139,052        | -496                                 | 330,418           | -330,914                            | 33.7                   |
|                                  | 1984              | 10,702,241        | -89,632                              | 347,179           | -436,811                            | 30.8                   |
|                                  | 1985              | 10,434,121        | 118,815                              | 386,935           | -268,120                            | 27.0                   |
|                                  | 1986              | 10,335,239        | 115,521                              | 214,403           | -98,882                             | 48.2                   |
|                                  | 1987              | 9,581,706         | -453,141                             | 300,392           | -753,533                            | 31.9                   |
|                                  | 1988              | 6,043,982         | -3,364,501                           | 173,223           | -3,537,724                          | 34.9                   |
|                                  | 1989              | 2,086,583         | -3,862,234                           | 95,165            | -3,957,399                          | 21.9                   |
|                                  | Total (1963-1989) | --                | -1,247,784                           | 10,663,583        | -11,911,367                         | --                     |
|                                  | Percent Change    | -85.1             | --                                   | -68.5             | --                                  | --                     |
| <b>New Mexico Permian Basin</b>  |                   |                   |                                      |                   |                                     |                        |
|                                  | 1963              | 5,519,913         | 0                                    | 312,382           | 0                                   | 17.7                   |
|                                  | 1964              | 5,318,385         | 125,321                              | 326,849           | -201,528                            | 16.3                   |
|                                  | 1965              | 6,059,682         | 1,066,930                            | 325,633           | 741,297                             | 18.6                   |
|                                  | 1966              | 6,179,975         | 479,103                              | 358,810           | 120,293                             | 17.2                   |
|                                  | 1967              | 5,761,401         | -54,223                              | 364,351           | -418,574                            | 15.8                   |
|                                  | 1968              | 5,670,257         | 325,756                              | 416,900           | -91,144                             | 13.6                   |
|                                  | 1969              | 5,259,163         | 22,982                               | 434,076           | -411,094                            | 12.1                   |
|                                  | 1970              | 5,041,212         | 239,429                              | 457,380           | -217,951                            | 11.0                   |
|                                  | 1971              | 4,938,010         | 369,541                              | 472,743           | -103,202                            | 10.4                   |
|                                  | 1972              | 4,414,799         | -26,548                              | 496,663           | -523,211                            | 8.9                    |
|                                  | 1973              | 4,059,486         | 173,646                              | 528,959           | -355,313                            | 7.7                    |
|                                  | 1974              | 3,929,411         | 413,273                              | 543,348           | -130,075                            | 7.2                    |
|                                  | 1975              | 4,052,756         | 679,771                              | 556,426           | 123,345                             | 7.3                    |
|                                  | 1976              | 3,201,928         | -329,915                             | 520,913           | -850,828                            | 6.1                    |
|                                  | 1977              | 3,127,455         | 404,896                              | 479,369           | -74,473                             | 6.5                    |
|                                  | 1978              | 3,295,933         | 647,372                              | 478,894           | 168,478                             | 6.9                    |
|                                  | 1979              | 3,197,035         | 376,173                              | 475,071           | -98,898                             | 6.7                    |
|                                  | 1980              | 3,104,961         | 340,056                              | 432,130           | -92,074                             | 7.2                    |
|                                  | 1981              | 3,609,397         | 1,002,476                            | 498,040           | 504,436                             | 7.2                    |
|                                  | 1982              | 3,336,104         | 152,443                              | 425,736           | -273,293                            | 7.8                    |
|                                  | 1983              | 3,159,034         | 205,671                              | 382,741           | -177,070                            | 8.3                    |
|                                  | 1984              | 3,057,236         | 287,239                              | 389,037           | -101,798                            | 7.9                    |
|                                  | 1985              | 2,971,735         | 267,273                              | 352,774           | -85,501                             | 8.4                    |
|                                  | 1986              | 2,822,624         | 120,425                              | 269,536           | -149,111                            | 10.5                   |
|                                  | 1987              | 2,214,410         | -380,169                             | 228,045           | -608,214                            | 9.7                    |
|                                  | 1988              | 1,234,850         | -838,743                             | 140,817           | -979,560                            | 8.8                    |
|                                  | 1989              | 811,882           | -296,268                             | 126,700           | -422,968                            | 6.4                    |
|                                  | Total (1963-1989) | --                | 5,773,910                            | 10,481,941        | -4,708,031                          | --                     |
|                                  | Percent Change    | -85.3             | --                                   | -59.4             | --                                  | --                     |
| <b>New York</b>                  |                   |                   |                                      |                   |                                     |                        |
|                                  | 1963              | 9,772             | 0                                    | 1,136             | 0                                   | 8.6                    |
|                                  | 1964              | 4,979             | -3,737                               | 1,056             | -4,793                              | 4.7                    |
|                                  | 1965              | 4,478             | 833                                  | 1,334             | -501                                | 3.4                    |
|                                  | 1966              | 4,625             | 1,053                                | 906               | 147                                 | 5.1                    |
|                                  | 1967              | 3,947             | -10                                  | 668               | -678                                | 5.9                    |
|                                  | 1968              | 3,671             | 287                                  | 563               | -276                                | 6.5                    |
|                                  | 1969              | 3,070             | 54                                   | 655               | -601                                | 4.7                    |
|                                  | 1970              | 4,084             | 1,626                                | 612               | 1,014                               | 6.7                    |
|                                  | 1971              | 3,391             | -89                                  | 604               | -693                                | 5.6                    |
|                                  | 1972              | 22,833            | 21,131                               | 1,589             | 19,442                              | 13.1                   |
|                                  | 1973              | 16,281            | -4,508                               | 2,044             | -6,552                              | 8.0                    |
|                                  | 1974              | 27,166            | 13,526                               | 2,641             | 10,885                              | 10.3                   |
|                                  | 1975              | 29,940            | 6,773                                | 3,999             | 2,774                               | 7.5                    |
|                                  | 1976              | 33,516            | 6,705                                | 3,129             | 3,576                               | 10.7                   |
|                                  | 1977              | 25,716            | -5,700                               | 2,100             | -7,800                              | 12.2                   |
|                                  | 1978              | 21,970            | -1,934                               | 1,812             | -3,746                              | 12.1                   |
|                                  | 1979              | 24,465            | 7,880                                | 5,385             | 2,495                               | 4.5                    |
|                                  | 1980              | 37,077            | 15,341                               | 2,729             | 12,612                              | 13.6                   |
|                                  | 1981              | 69,940            | 41,469                               | 8,606             | 32,863                              | 8.1                    |
|                                  | 1982              | 107,155           | 45,382                               | 8,167             | 37,215                              | 13.1                   |
|                                  | 1983              | 195,241           | 97,273                               | 9,187             | 88,086                              | 21.3                   |
|                                  | 1984              | 193,062           | 12,189                               | 14,368            | -2,179                              | 13.4                   |
|                                  | 1985              | 201,565           | 48,624                               | 40,121            | 8,503                               | 5.0                    |
|                                  | 1986              | 218,658           | 48,388                               | 31,295            | 17,093                              | 7.0                    |
|                                  | 1987              | 208,436           | 26,535                               | 36,757            | -10,222                             | 5.7                    |
|                                  | 1988              | 169,239           | -12,552                              | 26,645            | -39,197                             | 6.4                    |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State             | Year | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P <sup>a</sup> Ratio |
|-------------------|------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------------------|
| New York          | 1989 | 143,112           | 8,619                                | 34,746            | -26,127                             | 4.1                    |
| Total (1963-1989) |      | --                | 375,158                              | 241,818           | 133,340                             | --                     |
| Percent Change    |      | 1,364.5           | --                                   | 2,958.6           | --                                  | --                     |
| North Dakota      | 1963 | 545,064           | 0                                    | 19,694            | 0                                   | 27.7                   |
|                   | 1964 | 524,295           | 0                                    | 20,769            | -20,769                             | 25.2                   |
|                   | 1965 | 464,064           | -40,571                              | 19,660            | -60,231                             | 23.6                   |
|                   | 1966 | 443,705           | 0                                    | 20,359            | -20,359                             | 21.8                   |
|                   | 1967 | 423,900           | 1                                    | 19,806            | -19,805                             | 21.4                   |
|                   | 1968 | 264,393           | -140,823                             | 18,684            | 159,507                             | 14.2                   |
|                   | 1969 | 247,596           | 936                                  | 17,733            | 16,797                              | 14.0                   |
|                   | 1970 | 213,159           | -17,404                              | 17,033            | -34,437                             | 12.5                   |
|                   | 1971 | 193,496           | -4,590                               | 15,073            | -19,663                             | 12.8                   |
|                   | 1972 | 178,107           | -4,961                               | 10,428            | -15,389                             | 17.1                   |
|                   | 1973 | 261,163           | 97,267                               | 14,211            | 83,056                              | 18.4                   |
|                   | 1974 | 252,690           | 3,060                                | 11,533            | -8,473                              | 21.9                   |
|                   | 1975 | 239,120           | -1,820                               | 11,750            | -13,570                             | 20.4                   |
|                   | 1976 | 226,939           | -2,263                               | 9,918             | -12,181                             | 22.9                   |
|                   | 1977 | 223,150           | 7,013                                | 10,802            | -3,789                              | 20.7                   |
|                   | 1978 | 230,772           | 18,825                               | 11,203            | 7,622                               | 20.6                   |
|                   | 1979 | 219,435           | 2,831                                | 14,168            | -11,337                             | 15.5                   |
|                   | 1980 | 309,369           | 109,037                              | 19,103            | 89,934                              | 16.2                   |
|                   | 1981 | 293,944           | 6,965                                | 22,390            | -15,425                             | 13.1                   |
|                   | 1982 | 291,490           | 23,542                               | 25,996            | -2,454                              | 11.2                   |
|                   | 1983 | 236,101           | -22,555                              | 32,834            | -55,389                             | 7.2                    |
|                   | 1984 | 231,981           | 14,147                               | 18,267            | -4,120                              | 12.7                   |
|                   | 1985 | 279,356           | 69,022                               | 21,647            | 47,375                              | 12.9                   |
|                   | 1986 | 287,913           | 29,767                               | 21,210            | 8,557                               | 13.6                   |
|                   | 1987 | 138,327           | -132,852                             | 16,734            | -149,586                            | 8.3                    |
|                   | 1988 | 45,520            | -76,632                              | 16,175            | -92,807                             | 2.8                    |
|                   | 1989 | 37,207            | 2,149                                | 12,462            | -10,313                             | 2.8                    |
| Total (1963-1989) |      | --                | -59,909                              | 449,948           | -509,857                            | --                     |
| Percent Change    |      | -93.5             | --                                   | -36.7             | --                                  | --                     |
| Ohio              | 1963 | 131,968           | 0                                    | 22,815            | 0                                   | 5.8                    |
|                   | 1964 | 103,271           | -7,693                               | 21,004            | -28,697                             | 4.9                    |
|                   | 1965 | 89,145            | 6,782                                | 20,908            | -14,126                             | 4.3                    |
|                   | 1966 | 80,323            | 13,220                               | 22,042            | -8,822                              | 3.6                    |
|                   | 1967 | 72,024            | 11,540                               | 19,839            | -8,299                              | 3.6                    |
|                   | 1968 | 96,334            | -13,079                              | 18,769            | 24,310                              | 5.1                    |
|                   | 1969 | 109,648           | 39,592                               | 26,278            | 13,314                              | 4.2                    |
|                   | 1970 | 156,179           | 76,767                               | 30,236            | 46,531                              | 5.2                    |
|                   | 1971 | 157,926           | 31,384                               | 29,637            | 1,747                               | 5.3                    |
|                   | 1972 | 174,394           | 46,311                               | 29,843            | 16,468                              | 5.8                    |
|                   | 1973 | 201,255           | 55,761                               | 28,900            | 26,861                              | 7.0                    |
|                   | 1974 | 215,228           | 43,199                               | 29,226            | 13,973                              | 7.4                    |
|                   | 1975 | 196,010           | 7,446                                | 26,664            | -19,218                             | 7.4                    |
|                   | 1976 | 168,636           | -1,830                               | 25,544            | -27,374                             | 6.6                    |
|                   | 1977 | 147,133           | 3,056                                | 24,559            | -21,503                             | 6.0                    |
|                   | 1978 | 142,472           | 18,758                               | 23,419            | -4,661                              | 6.1                    |
|                   | 1979 | 148,271           | 30,921                               | 25,122            | 5,799                               | 5.9                    |
|                   | 1980 | 194,231           | 80,990                               | 35,030            | 45,960                              | 5.5                    |
|                   | 1981 | 220,481           | 67,428                               | 41,178            | 26,250                              | 5.4                    |
|                   | 1982 | 362,612           | 191,895                              | 49,764            | 142,131                             | 7.3                    |
|                   | 1983 | 400,079           | 95,120                               | 57,653            | 37,467                              | 6.9                    |
|                   | 1984 | 401,352           | 55,040                               | 53,767            | 1,273                               | 7.5                    |
|                   | 1985 | 319,312           | -8,177                               | 73,863            | -82,040                             | 4.3                    |
|                   | 1986 | 377,925           | 87,012                               | 28,399            | 58,613                              | 13.3                   |
|                   | 1987 | 380,257           | 22,287                               | 19,955            | 2,332                               | 19.1                   |
|                   | 1988 | 293,096           | -70,413                              | 16,748            | -87,161                             | 17.5                   |
|                   | 1989 | 235,719           | -45,444                              | 11,933            | -57,377                             | 19.8                   |
| Total (1963-1989) |      | --                | 894,031                              | 790,280           | 103,751                             | --                     |
| Percent Change    |      | 78.6              | --                                   | -47.7             | --                                  | --                     |
| Oklahoma          | 1963 | 13,807,958        | 0                                    | 692,612           | 0                                   | 19.9                   |
|                   | 1964 | 14,154,497        | 1,152,836                            | 806,297           | 346,539                             | 17.6                   |
|                   | 1965 | 14,273,119        | 973,673                              | 855,051           | 118,622                             | 16.7                   |
|                   | 1966 | 14,851,336        | 1,538,041                            | 959,824           | 578,217                             | 15.5                   |
|                   | 1967 | 15,105,087        | 1,285,640                            | 1,031,889         | 253,751                             | 14.6                   |
|                   | 1968 | 15,072,880        | 1,065,536                            | 1,097,743         | -32,207                             | 13.7                   |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State             | Year | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P* Ratio |
|-------------------|------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|
| Oklahoma          | 1969 | 14,580,620        | 707,404                              | 1,199,656         | -192,252                            | 12.2       |
|                   | 1970 | 14,022,418        | 692,154                              | 1,250,364         | -558,210                            | 11.2       |
|                   | 1971 | 12,682,297        | -129,632                             | 1,210,489         | -1,340,121                          | 10.5       |
|                   | 1972 | 11,498,788        | 2,917                                | 1,186,426         | -1,183,509                          | 9.7        |
|                   | 1973 | 10,359,288        | -35,432                              | 1,104,058         | -1,139,490                          | 9.4        |
|                   | 1974 | 9,388,829         | 107,037                              | 1,077,506         | -970,469                            | 8.7        |
|                   | 1975 | 8,510,250         | 113,900                              | 992,468           | -878,579                            | 8.6        |
|                   | 1976 | 7,889,565         | 298,957                              | 919,642           | -620,685                            | 8.6        |
|                   | 1977 | 7,390,731         | 367,144                              | 865,978           | -498,834                            | 8.5        |
|                   | 1978 | 7,796,285         | 1,263,116                            | 857,564           | 405,554                             | 9.1        |
|                   | 1979 | 8,207,915         | 1,356,252                            | 944,622           | 411,630                             | 8.7        |
|                   | 1980 | 9,125,085         | 1,871,008                            | 953,838           | 917,170                             | 9.6        |
|                   | 1981 | 8,577,060         | 453,113                              | 1,001,138         | -546,025                            | 8.6        |
|                   | 1982 | 10,230,428        | 2,771,389                            | 1,118,021         | 1,653,368                           | 9.2        |
|                   | 1983 | 9,777,234         | 434,919                              | 888,113           | -453,194                            | 11.0       |
|                   | 1984 | 9,233,423         | 442,557                              | 986,368           | -543,811                            | 9.4        |
|                   | 1985 | 8,511,118         | 126,561                              | 824,866           | -698,305                            | 10.3       |
|                   | 1986 | 7,688,206         | -155,382                             | 691,530           | -846,912                            | 11.1       |
|                   | 1987 | 6,396,899         | -711,925                             | 579,382           | -1,291,307                          | 11.0       |
|                   | 1988 | 4,779,706         | -1,105,196                           | 511,997           | -1,617,193                          | 9.3        |
|                   | 1989 | 3,950,362         | -368,780                             | 460,564           | -829,344                            | 8.6        |
| Total (1963-1989) |      | --                | 14,517,818                           | 24,375,414        | -9,857,506                          | --         |
| Percent Change    |      | -71.4             | --                                   | -33.5             | --                                  | --         |
| Pennsylvania      | 1963 | 609,800           | 0                                    | 48,890            | 0                                   | 12.5       |
|                   | 1964 | 582,136           | 13,284                               | 40,948            | -27,664                             | 14.2       |
|                   | 1965 | 607,753           | 64,395                               | 38,778            | 25,617                              | 15.7       |
|                   | 1966 | 603,948           | 39,793                               | 43,598            | -3,805                              | 13.9       |
|                   | 1967 | 566,853           | 7,771                                | 44,866            | -37,095                             | 12.6       |
|                   | 1968 | 379,842           | -147,107                             | 39,904            | -187,011                            | 9.5        |
|                   | 1969 | 344,087           | 508                                  | 36,263            | -35,755                             | 9.5        |
|                   | 1970 | 327,220           | 18,942                               | 35,809            | -16,867                             | 9.1        |
|                   | 1971 | 343,509           | 47,472                               | 31,183            | 16,289                              | 11.0       |
|                   | 1972 | 326,747           | 16,974                               | 33,736            | -16,762                             | 9.7        |
|                   | 1973 | 363,144           | 70,912                               | 34,515            | 36,397                              | 10.5       |
|                   | 1974 | 364,107           | 37,200                               | 36,237            | 963                                 | 10.0       |
|                   | 1975 | 384,814           | 54,622                               | 33,915            | 20,707                              | 11.3       |
|                   | 1976 | 396,715           | 46,227                               | 34,326            | 11,901                              | 11.6       |
|                   | 1977 | 426,408           | 58,308                               | 28,615            | 29,693                              | 14.9       |
|                   | 1978 | 433,449           | 39,174                               | 32,133            | 7,041                               | 13.5       |
|                   | 1979 | 468,244           | 63,832                               | 29,037            | 34,795                              | 16.1       |
|                   | 1980 | 590,176           | 163,780                              | 41,848            | 121,932                             | 14.1       |
|                   | 1981 | 823,579           | 295,615                              | 62,212            | 233,403                             | 13.2       |
|                   | 1982 | 967,329           | 216,403                              | 72,653            | 143,750                             | 13.3       |
|                   | 1983 | 985,277           | 83,540                               | 65,592            | 17,948                              | 15.0       |
|                   | 1984 | 964,914           | 47,350                               | 67,713            | -20,363                             | 14.3       |
|                   | 1985 | 909,153           | 13,399                               | 69,160            | -55,761                             | 13.1       |
|                   | 1986 | 934,124           | 82,868                               | 57,897            | 24,971                              | 16.1       |
|                   | 1987 | 978,336           | 96,347                               | 52,135            | 44,212                              | 18.8       |
|                   | 1988 | 888,883           | -41,042                              | 48,411            | -89,453                             | 18.4       |
|                   | 1989 | 778,794           | -67,505                              | 42,584            | -110,089                            | 18.3       |
| Total (1963-1989) |      | --                | 1,323,062                            | 1,154,068         | 168,994                             | --         |
| Percent Change    |      | 27.7              | --                                   | -12.9             | --                                  | --         |
| South Dakota      | 1978 | 6,000             | 6,000                                | 0                 | 6,000                               | .0         |
|                   | 1979 | 7,758             | 2,600                                | 842               | 1,758                               | 9.2        |
|                   | 1980 | 8,490             | 1,850                                | 1,118             | 732                                 | 7.6        |
|                   | 1981 | 15,420            | 8,098                                | 1,168             | 6,930                               | 13.2       |
|                   | 1982 | 14,952            | 1,394                                | 1,862             | -468                                | 8.0        |
|                   | 1983 | 13,651            | 2                                    | 1,303             | -1,301                              | 10.5       |
|                   | 1984 | 11,637            | -1,197                               | 817               | -2,014                              | 14.2       |
|                   | 1985 | 10,082            | -626                                 | 929               | -1,555                              | 10.9       |
|                   | 1986 | 9,162             | -244                                 | 676               | -920                                | 13.6       |
|                   | 1987 | 6,969             | -1,692                               | 501               | -2,193                              | 13.9       |
|                   | 1988 | 3,607             | -2,817                               | 545               | -3,362                              | 6.6        |
|                   | 1989 | 2,293             | -765                                 | 549               | -1,314                              | 4.2        |
| Total (1963-1989) |      | --                | 12,603                               | 10,310            | 2,293                               | --         |
| Percent Change    |      | -61.8             | --                                   | --                | --                                  | --         |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                                 | Year | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change In Reserves Gain or Loss | R/P* Ratio |
|---------------------------------------|------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|
| Tennessee                             |      |                   |                                      |                   |                                     |            |
|                                       | 1968 | 250               | 252                                  | 2                 | 250                                 | 125.0      |
|                                       | 1969 | 10                | -237                                 | 3                 | -240                                | 3.3        |
|                                       | 1970 | 10                | 0                                    | 0                 | 0                                   | 0          |
|                                       | 1973 | 1,615             | 1,605                                | 0                 | 1,605                               | 0          |
|                                       | 1974 | 2,497             | 882                                  | 0                 | 882                                 | 0          |
|                                       | 1975 | 2,497             | 0                                    | 0                 | 0                                   | 0          |
|                                       | 1976 | 2,497             | 0                                    | 0                 | 0                                   | 0          |
|                                       | 1981 | 26                | -2,439                               | 32                | -2,471                              | .8         |
|                                       | 1982 | 8,878             | 9,136                                | 284               | 8,852                               | 31.3       |
|                                       | 1983 | 7,048             | 2,583                                | 3,813             | -1,230                              | 2.0        |
|                                       | 1984 | 5,415             | 1,804                                | 4,037             | -2,233                              | 1.3        |
|                                       | 1985 | 11,800            | 10,462                               | 4,077             | 6,385                               | 2.9        |
|                                       | 1986 | 8,734             | 0                                    | 3,066             | -3,066                              | 2.8        |
|                                       | 1987 | 18,925            | 13,186                               | 2,995             | 10,191                              | 6.3        |
|                                       | 1988 | 16,270            | 0                                    | 2,655             | -2,655                              | 6.1        |
|                                       | 1989 | 14,091            | 35                                   | 2,214             | -2,179                              | 6.4        |
| Total (1963-1989)                     |      | --                | 37,269                               | 23,178            | 14,091                              | --         |
| Percent Change                        |      | 5,536.4           | --                                   | 110,600.0         | --                                  | --         |
| Texas                                 |      |                   |                                      |                   |                                     |            |
|                                       | 1963 | 52,668,983        | 0                                    | 3,222,919         | 0                                   | 16.3       |
|                                       | 1964 | 53,651,366        | 4,358,367                            | 3,375,984         | 982,383                             | 15.9       |
|                                       | 1965 | 53,503,297        | 3,288,494                            | 3,436,563         | -148,069                            | 15.6       |
|                                       | 1966 | 55,184,451        | 5,205,077                            | 3,523,923         | 1,681,154                           | 15.7       |
|                                       | 1967 | 56,470,413        | 4,800,784                            | 3,514,822         | 1,285,962                           | 16.1       |
|                                       | 1968 | 55,010,407        | 2,150,516                            | 3,610,524         | -1,460,006                          | 15.2       |
|                                       | 1969 | 49,067,574        | -2,213,970                           | 3,728,863         | -5,942,833                          | 13.2       |
|                                       | 1970 | 41,361,659        | -3,821,924                           | 3,883,991         | -7,705,915                          | 10.6       |
|                                       | 1971 | 37,990,952        | 425,130                              | 3,795,837         | -3,370,707                          | 10.0       |
|                                       | 1972 | 32,637,487        | -1,619,684                           | 3,733,781         | -5,353,465                          | 8.7        |
|                                       | 1973 | 28,651,862        | -409,068                             | 3,576,557         | -3,985,625                          | 8.0        |
|                                       | 1974 | 25,139,850        | -164,180                             | 3,347,832         | -3,512,012                          | 7.5        |
|                                       | 1975 | 20,360,237        | -1,819,122                           | 2,960,491         | -4,179,613                          | 6.9        |
|                                       | 1976 | 17,567,503        | -161,163                             | 2,631,571         | -2,192,734                          | 6.7        |
|                                       | 1977 | 16,127,735        | 979,002                              | 2,418,770         | -1,439,768                          | 6.7        |
|                                       | 1978 | 17,255,431        | 3,412,507                            | 2,284,811         | 1,127,696                           | 7.6        |
|                                       | 1979 | 17,977,739        | 3,472,299                            | 2,749,991         | 722,308                             | 6.5        |
|                                       | 1980 | 17,409,917        | 2,313,909                            | 2,881,731         | -567,822                            | 6.0        |
|                                       | 1981 | 18,573,606        | 4,177,514                            | 3,013,825         | 1,163,689                           | 6.2        |
|                                       | 1982 | 17,387,220        | 1,537,468                            | 2,723,854         | -1,186,386                          | 6.4        |
|                                       | 1983 | 16,723,718        | 1,750,991                            | 2,414,493         | -663,502                            | 6.9        |
|                                       | 1984 | 15,968,545        | 1,800,706                            | 2,555,879         | -755,173                            | 6.2        |
|                                       | 1985 | 15,538,082        | 1,666,205                            | 2,096,668         | -430,463                            | 7.4        |
|                                       | 1986 | 14,510,512        | 858,804                              | 1,886,374         | -1,027,570                          | 7.7        |
|                                       | 1987 | 11,859,135        | -1,003,058                           | 1,648,319         | -2,651,377                          | 7.2        |
|                                       | 1988 | 8,073,055         | -2,324,185                           | 1,461,895         | -3,786,080                          | 5.5        |
|                                       | 1989 | 6,325,361         | -490,187                             | 1,257,507         | -1,747,694                          | 5.0        |
| Total (1963-1989)                     |      | --                | 28,171,234                           | 74,514,856        | -46,343,622                         | --         |
| Percent Change                        |      | -88.0             | --                                   | -61.0             | --                                  | --         |
| Texas Railroad District No. 1 (North) |      |                   |                                      |                   |                                     |            |
|                                       | 1963 | 63,381            | 0                                    | 3,869             | 0                                   | 16.4       |
|                                       | 1964 | 54,662            | -3,640                               | 5,079             | -8,719                              | 10.8       |
|                                       | 1965 | 56,138            | 5,238                                | 3,762             | 1,476                               | 14.9       |
|                                       | 1966 | 52,619            | -141                                 | 3,378             | -3,519                              | 15.6       |
|                                       | 1967 | 49,253            | 503                                  | 2,863             | -3,166                              | 17.2       |
|                                       | 1968 | 45,572            | -715                                 | 2,966             | -3,081                              | 15.4       |
|                                       | 1969 | 44,199            | 1,685                                | 3,058             | -1,373                              | 14.5       |
|                                       | 1970 | 40,777            | -11                                  | 3,411             | -3,422                              | 12.0       |
|                                       | 1971 | 39,070            | 2,573                                | 4,280             | -1,707                              | 9.1        |
|                                       | 1972 | 39,623            | 3,364                                | 2,811             | 553                                 | 14.1       |
|                                       | 1973 | 36,141            | 313                                  | 3,795             | -3,482                              | 9.5        |
|                                       | 1974 | 45,495            | 13,157                               | 3,803             | 9,354                               | 12.0       |
|                                       | 1975 | 41,021            | -332                                 | 4,142             | -4,474                              | 9.9        |
|                                       | 1976 | 37,043            | -240                                 | 3,738             | -3,978                              | 9.9        |
|                                       | 1977 | 34,204            | 478                                  | 3,317             | -2,839                              | 10.3       |
|                                       | 1978 | 36,595            | 5,709                                | 3,318             | 2,391                               | 11.0       |
|                                       | 1979 | 39,851            | 6,254                                | 2,998             | 3,256                               | 13.3       |
|                                       | 1980 | 16,159            | -19,911                              | 3,781             | -23,692                             | 4.3        |
|                                       | 1981 | 32,780            | 23,236                               | 6,615             | 16,621                              | 5.0        |
|                                       | 1982 | 32,151            | 3,124                                | 3,753             | -629                                | 8.6        |
|                                       | 1983 | 28,344            | -2,370                               | 1,437             | -3,807                              | 19.7       |
|                                       | 1984 | 27,769            | 875                                  | 1,450             | -575                                | 19.2       |
|                                       | 1985 | 17,024            | -9,584                               | 1,161             | -10,745                             | 14.7       |
|                                       | 1986 | 16,208            | 243                                  | 1,059             | -816                                | 15.3       |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                                 | Year | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change In Reserves Gain or Loss | R/P <sup>a</sup> Ratio |
|---------------------------------------|------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------------------|
| Texas Railroad District No. 1 (North) |      |                   |                                      |                   |                                     |                        |
|                                       | 1987 | 2,847             | -13,118                              | 243               | -13,361                             | 11.7                   |
|                                       | 1988 | 2,330             | -317                                 | 200               | -517                                | 11.7                   |
|                                       | 1989 | 1,451             | -642                                 | 237               | -879                                | 6.1                    |
| Total (1983-1989)                     |      | --                | 14,725                               | 76,655            | -61,930                             | --                     |
| Percent Change                        |      | -97.7             | --                                   | -93.9             | --                                  | --                     |
| Texas Railroad District No. 1 (South) |      |                   |                                      |                   |                                     |                        |
|                                       | 1963 | 1,685,227         | 0                                    | 68,838            | 0                                   | 24.5                   |
|                                       | 1964 | 1,580,749         | -35,962                              | 68,516            | -104,478                            | 23.1                   |
|                                       | 1965 | 588,192           | -931,344                             | 61,213            | -992,557                            | 9.6                    |
|                                       | 1966 | 541,094           | 11,795                               | 58,893            | -47,098                             | 9.2                    |
|                                       | 1967 | 503,339           | 9,543                                | 47,298            | -37,755                             | 10.6                   |
|                                       | 1968 | 405,252           | -58,695                              | 39,392            | -98,087                             | 10.3                   |
|                                       | 1969 | 337,857           | -34,624                              | 32,771            | -67,395                             | 10.3                   |
|                                       | 1970 | 278,516           | -23,399                              | 35,942            | -59,341                             | 7.7                    |
|                                       | 1971 | 166,831           | -77,589                              | 34,096            | -111,685                            | 4.9                    |
|                                       | 1972 | 134,839           | -2,238                               | 29,754            | -31,992                             | 4.5                    |
|                                       | 1973 | 181,110           | 78,509                               | 32,238            | 46,271                              | 5.6                    |
|                                       | 1974 | 162,894           | 27,514                               | 45,730            | -18,216                             | 3.6                    |
|                                       | 1975 | 145,024           | 19,340                               | 37,210            | -17,670                             | 3.9                    |
|                                       | 1976 | 143,572           | 35,165                               | 36,617            | -1,452                              | 3.9                    |
|                                       | 1977 | 130,993           | 23,577                               | 36,156            | -12,579                             | 3.6                    |
|                                       | 1978 | 130,948           | 35,425                               | 35,470            | -45                                 | 3.7                    |
|                                       | 1979 | 148,979           | 47,794                               | 29,763            | 18,031                              | 5.0                    |
|                                       | 1980 | 121,388           | 1,696                                | 29,287            | -27,591                             | 4.1                    |
|                                       | 1981 | 168,163           | 74,056                               | 27,281            | 46,775                              | 6.2                    |
|                                       | 1982 | 133,668           | -5,596                               | 28,899            | -34,495                             | 4.6                    |
|                                       | 1983 | 97,765            | -11,272                              | 24,631            | -35,903                             | 4.0                    |
|                                       | 1984 | 99,745            | 27,246                               | 25,266            | 1,980                               | 3.9                    |
|                                       | 1985 | 95,811            | 18,042                               | 22,176            | -4,134                              | 4.3                    |
|                                       | 1986 | 116,302           | 36,728                               | 16,037            | 20,691                              | 7.3                    |
|                                       | 1987 | 75,864            | -20,132                              | 20,306            | -40,438                             | 3.7                    |
|                                       | 1988 | 113,096           | 66,348                               | 29,116            | 37,232                              | 3.9                    |
|                                       | 1989 | 228,920           | 149,667                              | 33,843            | 115,824                             | 6.8                    |
| Total (1963-1989)                     |      | --                | -538,406                             | 917,901           | -1,456,307                          | --                     |
| Percent Change                        |      | -86.4             | --                                   | -50.8             | --                                  | --                     |
| Texas Railroad District No. 2         |      |                   |                                      |                   |                                     |                        |
|                                       | 1963 | 4,864,112         | 0                                    | 330,667           | 0                                   | 14.7                   |
|                                       | 1964 | 4,584,487         | 62,552                               | 342,177           | -279,625                            | 13.4                   |
|                                       | 1965 | 4,076,858         | -180,279                             | 327,350           | -507,629                            | 12.5                   |
|                                       | 1966 | 3,466,305         | -298,702                             | 311,851           | -610,553                            | 11.1                   |
|                                       | 1967 | 2,841,291         | -360,124                             | 264,890           | -625,014                            | 10.7                   |
|                                       | 1968 | 2,496,730         | -99,472                              | 245,089           | -344,561                            | 10.2                   |
|                                       | 1969 | 2,075,879         | -188,320                             | 232,531           | -420,851                            | 8.9                    |
|                                       | 1970 | 1,715,090         | -166,748                             | 194,041           | -360,789                            | 8.8                    |
|                                       | 1971 | 1,454,790         | -76,816                              | 183,484           | -260,300                            | 7.9                    |
|                                       | 1972 | 1,303,237         | 24,532                               | 176,085           | -151,553                            | 7.4                    |
|                                       | 1973 | 1,110,733         | -29,939                              | 162,565           | -192,504                            | 6.8                    |
|                                       | 1974 | 898,492           | -59,631                              | 152,610           | -212,241                            | 5.9                    |
|                                       | 1975 | 677,975           | -101,824                             | 119,093           | -220,917                            | 5.7                    |
|                                       | 1976 | 573,164           | 3,847                                | 108,258           | -104,411                            | 5.3                    |
|                                       | 1977 | 550,595           | 72,331                               | 94,900            | -22,569                             | 5.8                    |
|                                       | 1978 | 578,619           | 112,842                              | 84,818            | 28,024                              | 6.8                    |
|                                       | 1979 | 716,626           | 226,283                              | 88,276            | 138,007                             | 8.1                    |
|                                       | 1980 | 661,009           | 50,105                               | 105,722           | -55,617                             | 6.3                    |
|                                       | 1981 | 553,979           | -2,762                               | 104,268           | -107,030                            | 5.3                    |
|                                       | 1982 | 826,401           | 411,231                              | 138,809           | 272,422                             | 6.0                    |
|                                       | 1983 | 753,625           | 82,006                               | 154,782           | -72,776                             | 4.9                    |
|                                       | 1984 | 704,025           | 157,586                              | 207,186           | -49,600                             | 3.4                    |
|                                       | 1985 | 584,282           | 19,915                               | 139,658           | -119,743                            | 4.2                    |
|                                       | 1986 | 410,993           | -104,368                             | 88,921            | -173,289                            | 6.0                    |
|                                       | 1987 | 365,766           | 29,779                               | 75,006            | -45,227                             | 4.9                    |
|                                       | 1988 | 292,531           | -21,456                              | 51,779            | -73,235                             | 5.6                    |
|                                       | 1989 | 394,569           | 293,551                              | 191,513           | 102,038                             | 2.1                    |
| Total (1963-1989)                     |      | --                | -143,881                             | 4,325,662         | -4,469,543                          | --                     |
| Percent Change                        |      | -91.9             | --                                   | -42.1             | --                                  | --                     |
| Texas Railroad District No. 3         |      |                   |                                      |                   |                                     |                        |
|                                       | 1963 | 5,078,311         | 0                                    | 387,472           | 0                                   | 13.1                   |
|                                       | 1964 | 4,977,012         | 280,602                              | 381,901           | -101,290                            | 13.0                   |
|                                       | 1965 | 4,505,727         | -78,387                              | 392,898           | -471,285                            | 11.5                   |
|                                       | 1966 | 4,083,560         | -29,797                              | 392,370           | -422,167                            | 10.4                   |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                         | Year              | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P* Ratio |
|-------------------------------|-------------------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|
| Texas Railroad District No. 3 |                   |                   |                                      |                   |                                     |            |
|                               | 1967              | 3,711,985         | -2,806                               | 368,769           | -371,575                            | 10.1       |
|                               | 1968              | 2,765,198         | -586,301                             | 360,486           | -946,787                            | 7.7        |
|                               | 1969              | 2,403,337         | -24,434                              | 337,427           | -361,861                            | 7.1        |
|                               | 1970              | 1,981,142         | -108,115                             | 314,080           | -422,195                            | 8.3        |
|                               | 1971              | 1,671,560         | -46,353                              | 263,229           | -309,582                            | 6.4        |
|                               | 1972              | 1,173,380         | -218,758                             | 279,422           | -498,180                            | 4.2        |
|                               | 1973              | 987,425           | 3,890                                | 189,845           | -185,955                            | 5.2        |
|                               | 1974              | 892,577           | 56,488                               | 151,336           | -94,848                             | 5.9        |
|                               | 1975              | 767,343           | 8,585                                | 133,799           | -125,234                            | 5.7        |
|                               | 1976              | 587,611           | -52,635                              | 127,097           | -179,732                            | 4.6        |
|                               | 1977              | 475,893           | -11,676                              | 100,042           | -111,718                            | 4.8        |
|                               | 1978              | 542,900           | 148,901                              | 81,894            | 67,007                              | 6.6        |
|                               | 1979              | 588,421           | 171,902                              | 120,381           | 45,521                              | 4.7        |
|                               | 1980              | 539,006           | 42,920                               | 92,335            | -49,415                             | 5.8        |
|                               | 1981              | 574,549           | 161,432                              | 125,889           | 35,543                              | 4.6        |
|                               | 1982              | 486,274           | 16,283                               | 104,558           | -88,275                             | 4.7        |
|                               | 1983              | 418,175           | 13,855                               | 81,954            | -68,099                             | 5.1        |
|                               | 1984              | 327,633           | -23,499                              | 67,043            | -90,542                             | 4.9        |
|                               | 1985              | 457,868           | 209,443                              | 79,208            | 130,235                             | 5.8        |
|                               | 1986              | 451,948           | 47,760                               | 53,680            | -5,920                              | 8.4        |
|                               | 1987              | 229,798           | -176,674                             | 45,476            | -222,150                            | 5.1        |
|                               | 1988              | 154,176           | -41,158                              | 34,464            | -75,622                             | 4.5        |
|                               | 1989              | 127,410           | -2,217                               | 24,549            | -26,766                             | 5.2        |
|                               | Total (1963-1989) | ---               | -240,769                             | 4,710,132         | -4,950,901                          | ---        |
|                               | Percent Change    | -97.5             | --                                   | -93.7             | --                                  | --         |
| Texas Railroad District No. 4 |                   |                   |                                      |                   |                                     |            |
|                               | 1963              | 11,212,220        | 0                                    | 652,194           | 0                                   | 17.2       |
|                               | 1964              | 11,878,975        | 1,343,910                            | 677,155           | 666,755                             | 17.5       |
|                               | 1965              | 12,556,777        | 1,398,834                            | 721,032           | 677,802                             | 17.4       |
|                               | 1966              | 11,606,704        | -195,249                             | 754,824           | -950,073                            | 15.4       |
|                               | 1967              | 12,470,267        | 1,645,773                            | 782,210           | 863,563                             | 15.9       |
|                               | 1968              | 11,459,832        | -212,318                             | 799,317           | -1,010,635                          | 14.4       |
|                               | 1969              | 10,140,480        | -521,612                             | 797,540           | -1,319,152                          | 12.7       |
|                               | 1970              | 8,493,310         | -826,647                             | 820,523           | -1,647,170                          | 10.4       |
|                               | 1971              | 7,802,139         | 111,923                              | 803,094           | -691,171                            | 9.7        |
|                               | 1972              | 6,284,407         | -763,031                             | 754,701           | -1,517,732                          | 8.3        |
|                               | 1973              | 5,850,371         | 269,928                              | 703,964           | -434,036                            | 8.3        |
|                               | 1974              | 4,921,859         | -309,209                             | 619,303           | -928,512                            | 7.9        |
|                               | 1975              | 3,638,375         | -603,868                             | 479,616           | -1,283,484                          | 7.6        |
|                               | 1976              | 3,028,432         | -200,661                             | 409,282           | -609,943                            | 7.4        |
|                               | 1977              | 2,398,730         | -258,942                             | 370,760           | -629,702                            | 6.5        |
|                               | 1978              | 2,392,194         | 285,213                              | 291,749           | -6,536                              | 8.2        |
|                               | 1979              | 2,302,138         | 222,881                              | 312,937           | -90,056                             | 7.4        |
|                               | 1980              | 2,344,940         | 340,609                              | 297,807           | 42,802                              | 7.9        |
|                               | 1981              | 2,370,791         | 503,024                              | 477,173           | 25,851                              | 5.0        |
|                               | 1982              | 1,973,087         | -120,979                             | 276,725           | -397,704                            | 7.1        |
|                               | 1983              | 1,750,306         | 30,670                               | 253,451           | -222,781                            | 6.9        |
|                               | 1984              | 1,640,337         | 168,568                              | 278,537           | -109,969                            | 5.9        |
|                               | 1985              | 1,330,192         | -110,632                             | 199,513           | -310,145                            | 6.7        |
|                               | 1986              | 1,139,345         | 29,454                               | 220,301           | -190,847                            | 5.2        |
|                               | 1987              | 952,396           | -11,230                              | 175,719           | -186,949                            | 5.4        |
|                               | 1988              | 669,620           | -113,936                             | 168,840           | -282,776                            | 4.0        |
|                               | 1989              | 653,649           | 121,795                              | 137,766           | -15,971                             | 4.7        |
|                               | Total (1963-1989) | --                | 2,024,268                            | 12,582,839        | -10,558,571                         | --         |
|                               | Percent Change    | -94.2             | --                                   | -78.9             | --                                  | --         |
| Texas Railroad District No. 5 |                   |                   |                                      |                   |                                     |            |
|                               | 1963              | 34,202            | 0                                    | 2,133             | 0                                   | 16.0       |
|                               | 1964              | 33,221            | 556                                  | 1,537             | -981                                | 21.6       |
|                               | 1965              | 32,721            | 784                                  | 1,284             | -500                                | 25.5       |
|                               | 1966              | 31,558            | 232                                  | 1,395             | -1,163                              | 22.6       |
|                               | 1967              | 22,518            | -7,597                               | 1,443             | -9,040                              | 15.6       |
|                               | 1968              | 26,395            | 5,496                                | 1,619             | 3,877                               | 18.3       |
|                               | 1969              | 8,968             | -15,761                              | 1,666             | -17,427                             | 5.4        |
|                               | 1970              | 6,707             | 17                                   | 2,278             | -2,261                              | 2.9        |
|                               | 1971              | 38,535            | 34,329                               | 2,501             | 31,828                              | 15.4       |
|                               | 1972              | 35,196            | -27                                  | 3,312             | -3,339                              | 10.6       |
|                               | 1973              | 31,322            | -137                                 | 3,737             | -3,874                              | 8.4        |
|                               | 1974              | 27,841            | 13                                   | 3,494             | -3,481                              | 8.0        |
|                               | 1975              | 24,355            | -18                                  | 3,468             | -3,486                              | 7.0        |
|                               | 1976              | 22,087            | 394                                  | 2,662             | -2,268                              | 8.3        |
|                               | 1977              | 20,133            | 40                                   | 1,994             | -1,954                              | 10.1       |
|                               | 1978              | 18,582            | 12                                   | 1,563             | -1,551                              | 11.9       |
|                               | 1979              | 14,767            | -614                                 | 3,201             | -3,815                              | 4.6        |

Note. Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                          | Year              | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P* Ratio |
|--------------------------------|-------------------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|
| Texas Railroad District No. 5  |                   |                   |                                      |                   |                                     |            |
|                                | 1980              | 13,186            | 4,197                                | 5,778             | -1,581                              | 2.3        |
|                                | 1981              | 9,273             | 1,921                                | 5,834             | -3,913                              | 1.6        |
|                                | 1982              | 13,943            | 10,603                               | 5,833             | 4,670                               | 2.4        |
|                                | 1983              | 11,582            | 2,156                                | 4,517             | -2,361                              | 2.6        |
|                                | 1984              | 7,256             | -1,812                               | 2,714             | -4,328                              | 2.7        |
|                                | 1985              | 10,956            | 6,337                                | 2,637             | 3,700                               | 4.2        |
|                                | 1986              | 1,022             | -9,512                               | 422               | -9,934                              | 2.4        |
|                                | 1987              | 2,280             | 1,939                                | 681               | 1,258                               | 3.3        |
|                                | 1988              | 1,347             | -538                                 | 395               | -933                                | 3.4        |
|                                | 1989              | 1,391             | 530                                  | 486               | 44                                  | 2.9        |
|                                | Total (1963-1989) | --                | 33,740                               | 66,551            | -32,811                             | --         |
|                                | Percent Change    | -95.9             | --                                   | -77.2             | --                                  | --         |
| Texas Railroad District No. 6  |                   |                   |                                      |                   |                                     |            |
|                                | 1963              | 2,302,290         | 0                                    | 348,576           | 0                                   | 6.6        |
|                                | 1964              | 2,393,834         | 402,050                              | 310,506           | 91,544                              | 7.7        |
|                                | 1965              | 2,287,227         | 209,534                              | 316,141           | -106,607                            | 7.2        |
|                                | 1966              | 2,170,335         | 182,765                              | 299,657           | -116,892                            | 7.2        |
|                                | 1967              | 1,959,820         | 67,585                               | 278,100           | -210,515                            | 7.0        |
|                                | 1968              | 1,918,234         | 206,660                              | 248,546           | -41,586                             | 7.7        |
|                                | 1969              | 1,675,753         | -25,754                              | 216,727           | -242,481                            | 7.7        |
|                                | 1970              | 1,381,608         | -102,963                             | 191,182           | -294,145                            | 7.2        |
|                                | 1971              | 1,177,681         | -42,852                              | 161,075           | -203,927                            | 7.3        |
|                                | 1972              | 1,056,438         | 39,036                               | 160,279           | -121,243                            | 6.6        |
|                                | 1973              | 948,767           | 36,715                               | 144,386           | -107,671                            | 6.6        |
|                                | 1974              | 968,931           | 149,928                              | 129,764           | 20,164                              | 7.5        |
|                                | 1975              | 830,569           | -17,369                              | 120,993           | -138,362                            | 6.9        |
|                                | 1976              | 727,440           | 8,555                                | 111,684           | -103,129                            | 6.5        |
|                                | 1977              | 759,362           | 138,431                              | 106,509           | 31,922                              | 7.1        |
|                                | 1978              | 818,502           | 173,334                              | 114,194           | 59,140                              | 7.2        |
|                                | 1979              | 1,078,943         | 475,678                              | 215,237           | 260,441                             | 5.0        |
|                                | 1980              | 1,317,391         | 557,647                              | 319,199           | 238,448                             | 4.1        |
|                                | 1981              | 1,399,147         | 277,348                              | 195,592           | 81,756                              | 7.2        |
|                                | 1982              | 1,519,970         | 297,423                              | 184,600           | 112,823                             | 8.2        |
|                                | 1983              | 1,507,849         | 142,306                              | 146,427           | -4,121                              | 10.3       |
|                                | 1984              | 1,521,843         | 194,434                              | 180,440           | 13,994                              | 8.4        |
|                                | 1985              | 1,514,788         | 148,775                              | 155,830           | -7,055                              | 9.7        |
|                                | 1986              | 1,379,371         | -8,928                               | 126,489           | -135,417                            | 10.9       |
|                                | 1987              | 1,302,640         | 39,527                               | 116,258           | -76,731                             | 11.2       |
|                                | 1988              | 965,946           | -225,263                             | 111,431           | -336,694                            | 8.7        |
|                                | 1989              | 760,001           | -110,125                             | 95,820            | -205,945                            | 7.9        |
|                                | Total (1963-1989) | --                | 3,214,777                            | 4,757,066         | -1,542,289                          | --         |
|                                | Percent Change    | -67.0             | --                                   | -72.5             | --                                  | --         |
| Texas Railroad District No. 7B |                   |                   |                                      |                   |                                     |            |
|                                | 1963              | 46,547            | 0                                    | 7,109             | 0                                   | 6.5        |
|                                | 1964              | 45,314            | 5,908                                | 7,141             | -1,233                              | 6.3        |
|                                | 1965              | 39,198            | 1,540                                | 7,656             | -6,116                              | 5.1        |
|                                | 1966              | 52,435            | 20,195                               | 6,958             | 13,237                              | 7.5        |
|                                | 1967              | 46,429            | 0                                    | 6,006             | -6,006                              | 7.7        |
|                                | 1968              | 43,084            | 2,486                                | 5,831             | -3,345                              | 7.4        |
|                                | 1969              | 39,537            | 0                                    | 3,547             | -3,547                              | 11.1       |
|                                | 1970              | 44,678            | 8,017                                | 2,876             | 5,141                               | 15.5       |
|                                | 1971              | 34,609            | -7,952                               | 2,117             | -10,069                             | 16.3       |
|                                | 1972              | 90,366            | 57,920                               | 2,171             | 55,757                              | 41.6       |
|                                | 1973              | 10,401            | -78,666                              | 1,299             | -79,965                             | 8.0        |
|                                | 1974              | 5,226             | -4,055                               | 1,120             | -5,175                              | 4.7        |
|                                | 1975              | 4,301             | 131                                  | 1,056             | -925                                | 4.1        |
|                                | 1976              | 3,341             | 1                                    | 961               | -960                                | 3.5        |
|                                | 1977              | 4,253             | 1,572                                | 660               | 912                                 | 6.4        |
|                                | 1978              | 11,664            | 8,769                                | 1,358             | 7,411                               | 8.6        |
|                                | 1979              | 23,826            | 14,319                               | 2,157             | 12,162                              | 11.0       |
|                                | 1980              | 17,869            | -2,183                               | 3,774             | -5,957                              | 4.7        |
|                                | 1981              | 1,424             | -16,245                              | 200               | -16,445                             | 7.1        |
|                                | 1982              | 2,222             | 1,322                                | 524               | 798                                 | 4.2        |
|                                | 1983              | 709               | -1,275                               | 238               | -1,513                              | 3.0        |
|                                | 1984              | 551               | 8                                    | 166               | -158                                | 3.3        |
|                                | 1985              | 3,598             | 3,821                                | 774               | 3,047                               | 4.6        |
|                                | 1986              | 76,957            | 75,135                               | 1,776             | 73,359                              | 43.3       |
|                                | 1987              | 59,694            | 28,953                               | 46,216            | -17,263                             | 1.3        |
|                                | 1988              | 107,491           | 129,632                              | 81,835            | 47,797                              | 1.3        |
|                                | 1989              | 669               | -106,744                             | 78                | -106,822                            | 8.6        |
|                                | Total (1963-1989) | --                | 142,617                              | 188,495           | -45,878                             | --         |
|                                | Percent Change    | -98.6             | --                                   | -98.9             | --                                  | --         |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                          | Year              | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P <sup>a</sup> Ratio |
|--------------------------------|-------------------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------------------|
| Texas Railroad District No. 7C |                   |                   |                                      |                   |                                     |                        |
|                                | 1963              | 2,472,362         | 0                                    | 110,295           | 0                                   | 22.4                   |
|                                | 1964              | 2,857,648         | 517,049                              | 131,763           | 385,286                             | 21.7                   |
|                                | 1965              | 2,985,879         | 262,582                              | 134,351           | 128,231                             | 22.2                   |
|                                | 1966              | 2,308,580         | -546,683                             | 130,818           | -677,299                            | 17.7                   |
|                                | 1967              | 2,946,912         | 785,732                              | 147,400           | 638,332                             | 20.0                   |
|                                | 1968              | 3,124,124         | 315,004                              | 140,792           | 177,212                             | 22.2                   |
|                                | 1969              | 2,703,781         | -247,831                             | 172,512           | -420,343                            | 15.7                   |
|                                | 1970              | 2,598,989         | 80,884                               | 165,676           | -104,792                            | 15.7                   |
|                                | 1971              | 2,581,083         | 155,988                              | 173,914           | -17,928                             | 14.8                   |
|                                | 1972              | 2,224,834         | -184,186                             | 172,043           | -356,229                            | 12.9                   |
|                                | 1973              | 1,902,703         | -131,885                             | 170,246           | -322,131                            | 10.0                   |
|                                | 1974              | 1,688,005         | -29,761                              | 184,937           | -214,698                            | 9.1                    |
|                                | 1975              | 1,263,312         | -286,822                             | 157,871           | -424,693                            | 8.0                    |
|                                | 1976              | 1,001,709         | -116,137                             | 145,466           | -261,603                            | 6.9                    |
|                                | 1977              | 948,468           | 76,693                               | 129,934           | -53,241                             | 7.3                    |
|                                | 1978              | 977,921           | 151,101                              | 121,648           | 29,453                              | 8.0                    |
|                                | 1979              | 1,049,200         | 187,881                              | 116,602           | 71,279                              | 9.0                    |
|                                | 1980              | 1,140,264         | 245,739                              | 154,675           | 91,064                              | 7.4                    |
|                                | 1981              | 1,104,298         | 111,940                              | 147,906           | -35,966                             | 7.5                    |
|                                | 1982              | 1,107,419         | 132,631                              | 129,510           | 3,121                               | 8.6                    |
|                                | 1983              | 1,040,536         | 59,403                               | 126,286           | -66,883                             | 8.2                    |
|                                | 1984              | 1,084,896         | 174,005                              | 129,845           | 44,380                              | 8.4                    |
|                                | 1985              | 1,119,482         | 159,082                              | 124,476           | 34,586                              | 9.0                    |
|                                | 1986              | 964,681           | -63,420                              | 91,381            | -154,801                            | 10.6                   |
|                                | 1987              | 876,742           | 4,385                                | 92,334            | -87,939                             | 9.5                    |
|                                | 1988              | 329,957           | -503,025                             | 43,760            | -546,785                            | 7.5                    |
|                                | 1989              | 176,787           | -117,095                             | 36,075            | -153,170                            | 4.9                    |
|                                | Total (1963-1989) | --                | 1,196,244                            | 3,491,819         | -2,295,575                          | --                     |
|                                | Percent Change    | -92.8             | --                                   | -67.3             | --                                  | --                     |
| Texas Railroad District No. 8  |                   |                   |                                      |                   |                                     |                        |
|                                | 1963              | 9,307,082         | 0                                    | 433,608           | 0                                   | 21.5                   |
|                                | 1964              | 10,466,423        | 1,897,182                            | 537,821           | 1,159,381                           | 19.5                   |
|                                | 1965              | 12,612,665        | 2,690,437                            | 544,195           | 2,146,242                           | 23.2                   |
|                                | 1966              | 16,675,277        | 4,647,381                            | 584,769           | 4,062,612                           | 29.5                   |
|                                | 1967              | 18,337,218        | 2,272,559                            | 610,618           | 1,661,941                           | 30.0                   |
|                                | 1968              | 19,526,445        | 1,987,392                            | 798,165           | 1,189,227                           | 24.5                   |
|                                | 1969              | 16,655,299        | -1,914,642                           | 956,504           | -2,871,146                          | 17.4                   |
|                                | 1970              | 13,160,109        | -2,419,893                           | 1,075,297         | -3,495,190                          | 12.2                   |
|                                | 1971              | 12,307,312        | 249,934                              | 1,102,731         | -852,797                            | 11.2                   |
|                                | 1972              | 10,636,582        | -596,964                             | 1,073,766         | -1,670,730                          | 9.9                    |
|                                | 1973              | 9,063,723         | -538,353                             | 1,034,506         | -1,572,859                          | 8.8                    |
|                                | 1974              | 7,737,050         | -375,102                             | 951,571           | -1,326,673                          | 8.1                    |
|                                | 1975              | 6,098,158         | -744,767                             | 894,125           | -1,638,892                          | 6.8                    |
|                                | 1976              | 5,333,500         | 1,601                                | 766,259           | -764,658                            | 7.0                    |
|                                | 1977              | 4,691,436         | 36,497                               | 678,561           | -642,064                            | 6.9                    |
|                                | 1978              | 4,160,889         | 76,342                               | 606,589           | -530,547                            | 6.9                    |
|                                | 1979              | 3,800,865         | 219,048                              | 579,072           | -360,024                            | 6.6                    |
|                                | 1980              | 3,397,492         | 128,390                              | 531,763           | -403,373                            | 6.4                    |
|                                | 1981              | 3,152,297         | 225,322                              | 470,517           | -245,195                            | 6.7                    |
|                                | 1982              | 3,069,367         | 315,821                              | 398,751           | -82,930                             | 7.7                    |
|                                | 1983              | 2,998,872         | 234,121                              | 304,616           | -70,495                             | 9.8                    |
|                                | 1984              | 2,971,901         | 271,110                              | 298,081           | -26,971                             | 10.0                   |
|                                | 1985              | 3,188,313         | 482,128                              | 265,716           | 216,412                             | 12.0                   |
|                                | 1986              | 2,818,641         | -149,479                             | 220,193           | -369,672                            | 12.8                   |
|                                | 1987              | 1,985,892         | -656,452                             | 176,297           | -832,740                            | 11.3                   |
|                                | 1988              | 782,113           | -1,113,635                           | 90,144            | -1,203,779                          | 8.7                    |
|                                | 1989              | 425,145           | -286,047                             | 70,921            | -356,968                            | 6.0                    |
|                                | Total (1963-1989) | --                | 6,739,631                            | 15,621,548        | -8,881,917                          | --                     |
|                                | Percent Change    | -95.4             | --                                   | -83.6             | --                                  | --                     |
| Texas Railroad District No. 8A |                   |                   |                                      |                   |                                     |                        |
|                                | 1963              | 1,506,890         | 0                                    | 53,062            | 0                                   | 28.4                   |
|                                | 1964              | 1,098,497         | -361,208                             | 47,185            | -408,393                            | 23.3                   |
|                                | 1965              | 1,047,394         | -718                                 | 50,385            | -51,103                             | 20.8                   |
|                                | 1966              | 1,924,988         | 943,815                              | 66,221            | 877,594                             | 29.1                   |
|                                | 1967              | 1,848,157         | 345                                  | 77,176            | -76,831                             | 23.9                   |
|                                | 1968              | 1,768,569         | 5,109                                | 84,697            | -79,588                             | 20.9                   |
|                                | 1969              | 1,725,684         | 42,314                               | 85,199            | -42,885                             | 20.3                   |
|                                | 1970              | 1,317,343         | -303,809                             | 104,532           | -408,341                            | 12.6                   |
|                                | 1971              | 1,047,531         | -180,712                             | 89,100            | -269,812                            | 11.8                   |
|                                | 1972              | 687,155           | -293,010                             | 67,366            | -360,376                            | 10.2                   |
|                                | 1973              | 355,474           | -273,088                             | 58,593            | -331,681                            | 6.1                    |
|                                | 1974              | 285,944           | -25,831                              | 43,899            | -69,530                             | 6.5                    |
|                                | 1975              | 171,171           | -78,676                              | 36,097            | -114,773                            | 4.7                    |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                          | Year              | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P* Ratio |
|--------------------------------|-------------------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|
| Texas Railroad District No. 8A |                   |                   |                                      |                   |                                     |            |
|                                | 1976              | 130,967           | -8,239                               | 31,965            | -40,204                             | 4.1        |
|                                | 1977              | 133,215           | 35,316                               | 33,068            | 2,248                               | 4.0        |
|                                | 1978              | 146,323           | 46,039                               | 32,931            | 13,108                              | 4.4        |
|                                | 1979              | 135,502           | 22,677                               | 33,498            | -10,821                             | 4.0        |
|                                | 1980              | 96,133            | -12,949                              | 26,420            | -39,369                             | 3.6        |
|                                | 1981              | 78,265            | 4,119                                | 21,987            | -17,868                             | 3.6        |
|                                | 1982              | 82,150            | 21,576                               | 17,691            | 3,885                               | 4.6        |
|                                | 1983              | 63,149            | -5,242                               | 13,759            | -19,001                             | 4.6        |
|                                | 1984              | 59,228            | 7,620                                | 11,541            | -3,921                              | 5.1        |
|                                | 1985              | 40,258            | -8,951                               | 10,019            | -18,970                             | 4.0        |
|                                | 1986              | 59,040            | 34,171                               | 15,389            | 18,782                              | 3.8        |
|                                | 1987              | 84,044            | 38,700                               | 12,896            | 25,804                              | 6.6        |
|                                | 1988              | 29,688            | -51,928                              | 3,228             | -55,156                             | 9.2        |
|                                | 1989              | 3,563             | -24,846                              | 1,279             | -26,125                             | 2.8        |
|                                | Total (1963-1989) | --                | -427,206                             | 1,076,121         | -1,503,327                          | --         |
|                                | Percent Change    | -99.8             | --                                   | -97.6             | --                                  | --         |
| Texas Railroad District No. 9  |                   |                   |                                      |                   |                                     |            |
|                                | 1963              | 730,680           | 0                                    | 50,049            | 0                                   | 14.6       |
|                                | 1964              | 850,565           | 176,470                              | 50,585            | 125,885                             | 16.9       |
|                                | 1965              | 842,926           | 44,562                               | 58,201            | -13,639                             | 14.5       |
|                                | 1966              | 769,617           | -9,290                               | 64,019            | -73,309                             | 12.0       |
|                                | 1967              | 772,830           | 63,740                               | 60,527            | 3,213                               | 12.8       |
|                                | 1968              | 731,594           | 18,640                               | 59,876            | -41,236                             | 12.2       |
|                                | 1969              | 672,513           | 923                                  | 60,004            | -59,081                             | 11.2       |
|                                | 1970              | 609,226           | 652                                  | 63,939            | -63,287                             | 9.5        |
|                                | 1971              | 577,872           | 30,556                               | 61,910            | -31,354                             | 9.3        |
|                                | 1972              | 524,353           | 3,808                                | 57,327            | -53,519                             | 9.1        |
|                                | 1973              | 474,048           | 303                                  | 50,608            | -50,305                             | 9.4        |
|                                | 1974              | 383,584           | -42,073                              | 48,391            | -90,464                             | 7.9        |
|                                | 1975              | 367,565           | 31,066                               | 47,085            | -16,019                             | 7.8        |
|                                | 1976              | 328,703           | 4,263                                | 43,125            | -38,862                             | 7.6        |
|                                | 1977              | 292,597           | 490                                  | 36,596            | -36,106                             | 8.0        |
|                                | 1978              | 258,859           | -437                                 | 33,301            | -33,738                             | 7.8        |
|                                | 1979              | 276,694           | 52,342                               | 34,507            | 17,835                              | 8.0        |
|                                | 1980              | 286,510           | 50,076                               | 40,260            | 9,816                               | 7.1        |
|                                | 1981              | 280,476           | 37,849                               | 43,883            | -6,034                              | 6.4        |
|                                | 1982              | 244,544           | 12,774                               | 48,700            | -35,932                             | 5.0        |
|                                | 1983              | 241,344           | 41,999                               | 45,199            | -3,200                              | 5.3        |
|                                | 1984              | 231,054           | 36,975                               | 47,265            | -10,290                             | 4.9        |
|                                | 1985              | 253,709           | 76,227                               | 53,572            | 22,655                              | 4.7        |
|                                | 1986              | 254,398           | 52,380                               | 51,691            | 689                                 | 4.9        |
|                                | 1987              | 214,128           | -7,350                               | 32,920            | -40,270                             | 6.5        |
|                                | 1988              | 142,371           | -40,531                              | 31,226            | -71,757                             | 4.6        |
|                                | 1989              | 146,196           | 42,216                               | 38,391            | 3,825                               | 3.8        |
|                                | Total (1963-1989) | --                | 678,630                              | 1,263,114         | -584,484                            | --         |
|                                | Percent Change    | -80.0             | --                                   | -23.3             | --                                  | --         |
| Texas Railroad District No. 10 |                   |                   |                                      |                   |                                     |            |
|                                | 1963              | 13,365,699        | 0                                    | 775,047           | 0                                   | 17.2       |
|                                | 1964              | 12,823,979        | 272,898                              | 814,618           | -541,720                            | 15.7       |
|                                | 1965              | 11,871,595        | -134,289                             | 818,095           | -952,384                            | 14.5       |
|                                | 1966              | 11,501,379        | 478,756                              | 848,972           | -370,216                            | 13.5       |
|                                | 1967              | 10,960,394        | 326,537                              | 867,522           | -540,985                            | 12.6       |
|                                | 1968              | 10,099,578        | 563,932                              | 824,748           | -260,816                            | 13.0       |
|                                | 1969              | 10,483,715        | 613,104                              | 828,967           | -215,863                            | 12.6       |
|                                | 1970              | 9,639,025         | 57,251                               | 901,941           | -844,690                            | 10.7       |
|                                | 1971              | 8,839,048         | 100,981                              | 900,958           | -799,977                            | 9.8        |
|                                | 1972              | 8,101,237         | 191,027                              | 928,838           | -737,811                            | 8.7        |
|                                | 1973              | 7,307,506         | 153,244                              | 946,975           | -793,731                            | 7.7        |
|                                | 1974              | 6,805,151         | 436,466                              | 938,821           | -502,355                            | 7.2        |
|                                | 1975              | 6,104,396         | 172,023                              | 872,778           | -700,755                            | 7.0        |
|                                | 1976              | 5,456,164         | 149,091                              | 797,323           | -648,232                            | 6.8        |
|                                | 1977              | 5,019,649         | 322,805                              | 759,320           | -436,515                            | 6.6        |
|                                | 1978              | 5,189,211         | 829,516                              | 659,954           | 169,562                             | 7.9        |
|                                | 1979              | 4,860,965         | 332,109                              | 660,355           | -328,246                            | 7.4        |
|                                | 1980              | 4,446,590         | 214,785                              | 629,160           | -414,375                            | 7.1        |
|                                | 1981              | 5,068,667         | 1,280,275                            | 658,198           | 622,077                             | 7.7        |
|                                | 1982              | 3,843,035         | -721,936                             | 503,696           | -1,225,632                          | 7.6        |
|                                | 1983              | 3,622,812         | 176,213                              | 396,436           | -220,223                            | 9.1        |
|                                | 1984              | 3,304,859         | 70,932                               | 388,885           | -317,953                            | 8.5        |
|                                | 1985              | 3,026,876         | 45,284                               | 323,267           | -277,983                            | 9.4        |
|                                | 1986              | 2,858,693         | 90,396                               | 258,579           | -168,183                            | 11.1       |
|                                | 1987              | 2,390,873         | -263,142                             | 204,678           | -467,820                            | 11.7       |
|                                | 1988              | 1,678,385         | -534,463                             | 178,025           | -712,488                            | 9.4        |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                          | Year | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P* Ratio |
|--------------------------------|------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|
| Texas Railroad District No. 10 | 1989 | 1,384,205         | -117,444                             | 176,736           | -294,180                            | 7.8        |
| Total (1963-1989)              |      | --                | 5,106,351                            | 17,087,845        | -11,981,494                         | --         |
| Percent Change                 |      | -89.6             | --                                   | -77.2             | --                                  | --         |
| Texas Offshore                 | 1969 | 100,572           | 100,982                              | 410               | 100,572                             | 245.3      |
|                                | 1970 | 95,139            | 2,840                                | 8,273             | -5,433                              | 11.5       |
|                                | 1971 | 252,911           | 171,120                              | 13,348            | 157,772                             | 18.9       |
|                                | 1972 | 345,840           | 118,835                              | 25,906            | 92,929                              | 13.3       |
|                                | 1973 | 392,138           | 100,098                              | 53,800            | 46,298                              | 7.3        |
|                                | 1974 | 316,801           | -2,284                               | 73,053            | -75,337                             | 4.3        |
|                                | 1975 | 227,072           | -36,571                              | 53,158            | -89,729                             | 4.3        |
|                                | 1976 | 193,770           | 13,832                               | 47,134            | -33,302                             | 4.1        |
|                                | 1977 | 668,207           | 541,390                              | 66,953            | 474,437                             | 10.0       |
|                                | 1978 | 1,992,224         | 1,540,041                            | 216,024           | 1,324,017                           | 9.2        |
|                                | 1979 | 2,940,962         | 1,493,745                            | 545,007           | 948,738                             | 5.4        |
|                                | 1980 | 3,011,980         | 712,788                              | 641,770           | 71,018                              | 4.7        |
|                                | 1981 | 3,779,497         | 1,495,999                            | 728,482           | 767,517                             | 5.2        |
|                                | 1982 | 4,060,989         | 1,163,191                            | 881,699           | 281,492                             | 4.6        |
|                                | 1983 | 4,188,650         | 988,421                              | 860,760           | 127,661                             | 4.9        |
|                                | 1984 | 3,987,448         | 716,458                              | 917,660           | -201,202                            | 4.3        |
|                                | 1985 | 3,895,125         | 626,338                              | 718,661           | -92,323                             | 5.4        |
|                                | 1986 | 3,962,913         | 828,244                              | 760,456           | 67,788                              | 5.2        |
|                                | 1987 | 3,315,371         | 1,747                                | 649,289           | -647,542                            | 5.1        |
|                                | 1988 | 2,804,004         | 126,085                              | 637,452           | -511,367                            | 4.4        |
|                                | 1989 | 2,021,405         | -332,786                             | 449,813           | -782,599                            | 4.5        |
| Total (1963-1989)              |      | --                | 10,370,513                           | 8,349,108         | 2,021,405                           | --         |
| Percent Change                 |      | 1,909.9           | --                                   | 109,610.5         | --                                  | --         |
| Utah                           | 1963 | 321,082           | 0                                    | 40,161            | 0                                   | 8.0        |
|                                | 1964 | 344,280           | 54,802                               | 31,604            | 23,198                              | 10.9       |
|                                | 1965 | 378,386           | 65,596                               | 31,490            | 34,106                              | 12.0       |
|                                | 1966 | 385,028           | 39,585                               | 32,943            | 6,642                               | 11.7       |
|                                | 1967 | 348,855           | -9,714                               | 26,459            | -36,173                             | 13.2       |
|                                | 1968 | 332,613           | 8,201                                | 24,443            | -16,242                             | 13.6       |
|                                | 1969 | 260,830           | -50,962                              | 20,821            | -71,783                             | 12.5       |
|                                | 1970 | 251,661           | 15,981                               | 25,150            | -9,169                              | 10.0       |
|                                | 1971 | 264,659           | 34,744                               | 21,746            | 12,998                              | 12.2       |
|                                | 1972 | 296,473           | 53,382                               | 21,568            | 31,814                              | 13.7       |
|                                | 1973 | 307,805           | 35,602                               | 24,270            | 11,332                              | 12.7       |
|                                | 1974 | 306,853           | 27,592                               | 28,544            | -952                                | 10.8       |
|                                | 1975 | 304,929           | 28,251                               | 30,175            | -1,924                              | 10.1       |
|                                | 1976 | 252,143           | -26,245                              | 26,541            | -52,786                             | 9.5        |
|                                | 1977 | 290,901           | 71,160                               | 32,402            | 38,758                              | 9.0        |
|                                | 1978 | 382,198           | 129,505                              | 38,208            | 91,297                              | 10.0       |
|                                | 1979 | 533,170           | 192,491                              | 41,519            | 150,972                             | 12.8       |
|                                | 1980 | 716,243           | 233,063                              | 49,990            | 183,073                             | 14.3       |
|                                | 1981 | 858,299           | 205,593                              | 63,537            | 142,056                             | 13.5       |
|                                | 1982 | 1,001,035         | 213,591                              | 70,855            | 142,736                             | 14.1       |
|                                | 1983 | 932,750           | -15,120                              | 53,165            | -68,285                             | 17.5       |
|                                | 1984 | 870,143           | -9,854                               | 52,753            | -62,607                             | 16.5       |
|                                | 1985 | 849,903           | 32,685                               | 52,925            | -20,240                             | 16.1       |
|                                | 1986 | 783,318           | -29,351                              | 37,234            | -66,585                             | 21.0       |
|                                | 1987 | 671,906           | -81,573                              | 29,839            | -111,412                            | 22.5       |
|                                | 1988 | 500,910           | -143,908                             | 27,088            | -170,996                            | 18.5       |
|                                | 1989 | 270,761           | -208,439                             | 21,710            | -230,149                            | 12.5       |
| Total (1963-1989)              |      | --                | 866,658                              | 916,979           | -50,321                             | --         |
| Percent Change                 |      | -15.7             | --                                   | -45.9             | --                                  | --         |
| Virginia                       | 1963 | 10,818            | 0                                    | 1,439             | 0                                   | 7.5        |
|                                | 1964 | 11,995            | 2,450                                | 1,273             | 1,177                               | 9.4        |
|                                | 1965 | 17,300            | 8,826                                | 3,521             | 5,305                               | 4.9        |
|                                | 1966 | 16,135            | 2,540                                | 3,705             | -1,165                              | 4.4        |
|                                | 1967 | 17,491            | 4,519                                | 3,163             | 1,356                               | 5.5        |
|                                | 1968 | 21,102            | 6,418                                | 2,807             | 3,611                               | 7.5        |
|                                | 1969 | 19,552            | 811                                  | 2,361             | -1,550                              | 8.3        |
|                                | 1970 | 28,088            | 10,914                               | 2,378             | 8,536                               | 11.8       |
|                                | 1971 | 30,893            | 4,972                                | 2,167             | 2,805                               | 14.3       |
|                                | 1972 | 38,633            | 10,158                               | 2,418             | 7,740                               | 16.0       |
|                                | 1973 | 41,858            | 7,916                                | 4,691             | 3,225                               | 8.9        |
|                                | 1974 | 38,523            | 3,388                                | 6,723             | -3,335                              | 5.7        |

Note: Footnotes appear at the end of the table

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State             | Year              | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P* Ratio |    |
|-------------------|-------------------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------|----|
| Virginia          | 1975              | 41,014            | 8,897                                | 6,406             | 2,491                               | 6.4        |    |
|                   | 1976              | 40,993            | 6,667                                | 6,688             | -21                                 | 6.1        |    |
|                   | 1977              | 44,791            | 9,310                                | 5,512             | 3,798                               | 8.1        |    |
|                   | 1978              | 91,654            | 55,405                               | 8,542             | 46,863                              | 10.7       |    |
|                   | 1979              | 107,257           | 24,190                               | 8,587             | 15,603                              | 12.5       |    |
|                   | 1980              | 108,025           | 8,586                                | 7,818             | 768                                 | 13.8       |    |
|                   | 1981              | 117,658           | 18,530                               | 8,897             | 9,633                               | 13.2       |    |
|                   | 1982              | 121,518           | 10,765                               | 6,905             | 3,860                               | 17.6       |    |
|                   | 1983              | 117,841           | 646                                  | 4,323             | -3,677                              | 27.3       |    |
|                   | 1984              | 112,864           | 3,999                                | 8,976             | -4,977                              | 12.6       |    |
|                   | 1985              | 133,931           | 35,318                               | 14,251            | 21,067                              | 9.4        |    |
|                   | 1986              | 133,954           | 61,389                               | 61,366            | 23                                  | 2.2        |    |
|                   | 1987              | 103,558           | 54,663                               | 85,059            | -30,396                             | 1.2        |    |
|                   | 1988              | 145,233           | 57,667                               | 15,992            | 41,675                              | 9.1        |    |
|                   | 1989              | 128,092           | -976                                 | 16,165            | -17,141                             | 7.9        |    |
|                   | Total (1963-1989) | --                | --                                   | 417,968           | 300,694                             | 117,274    | -- |
|                   | Percent Change    |                   | 1,084.1                              | --                | 1,023.3                             | --         | -- |
|                   | Washington        | 1983              | 10,585                               | 10,585            | 0                                   | 10,585     | 0  |
|                   |                   | 1984              | 12,527                               | 1,942             | 0                                   | 1,942      | 0  |
| 1985              |                   | 12,677            | 150                                  | 0                 | 150                                 | 0          |    |
| 1986              |                   | 13,765            | 1,088                                | 0                 | 1,088                               | 0          |    |
| 1987              |                   | 12,863            | -902                                 | 0                 | -902                                | 0          |    |
| 1988              |                   | 5,416             | -7,447                               | 0                 | -7,447                              | 0          |    |
| 1989              |                   | 6,604             | 1,188                                | 0                 | 1,188                               | 0          |    |
| Total (1963-1989) |                   | --                | --                                   | 6,604             | --                                  | 6,604      | -- |
| Percent Change    |                   | -37.6             | --                                   | --                | --                                  | --         |    |
| West Virginia     | 1963              | 1,904,102         | 0                                    | 163,564           | 0                                   | 11.6       |    |
|                   | 1964              | 1,982,145         | 251,011                              | 172,968           | 78,043                              | 11.5       |    |
|                   | 1965              | 1,937,033         | 130,640                              | 175,752           | -45,112                             | 11.0       |    |
|                   | 1966              | 1,985,145         | 223,450                              | 175,338           | 48,112                              | 11.3       |    |
|                   | 1967              | 1,925,401         | 119,518                              | 179,262           | -59,744                             | 10.7       |    |
|                   | 1968              | 1,907,235         | 180,680                              | 198,846           | -18,166                             | 9.6        |    |
|                   | 1969              | 1,844,741         | 126,882                              | 189,376           | -62,494                             | 9.7        |    |
|                   | 1970              | 1,789,459         | 152,723                              | 208,005           | -55,282                             | 8.6        |    |
|                   | 1971              | 1,749,714         | 161,223                              | 200,968           | -39,745                             | 8.7        |    |
|                   | 1972              | 1,687,892         | 112,811                              | 174,643           | -61,832                             | 9.7        |    |
|                   | 1973              | 1,644,881         | 107,560                              | 150,561           | -43,001                             | 10.9       |    |
|                   | 1974              | 1,487,428         | -11,610                              | 145,843           | -157,453                            | 10.2       |    |
|                   | 1975              | 1,423,334         | 67,054                               | 131,148           | -64,094                             | 10.9       |    |
|                   | 1976              | 1,478,789         | 187,832                              | 132,377           | 55,455                              | 11.2       |    |
|                   | 1977              | 1,459,026         | 110,649                              | 130,412           | -19,763                             | 11.2       |    |
|                   | 1978              | 1,516,740         | 191,699                              | 133,985           | 57,714                              | 11.3       |    |
|                   | 1979              | 1,554,046         | 168,227                              | 130,921           | 37,306                              | 11.9       |    |
|                   | 1980              | 1,614,177         | 203,193                              | 143,062           | 60,131                              | 11.3       |    |
|                   | 1981              | 1,560,665         | 103,251                              | 156,763           | -53,512                             | 10.0       |    |
|                   | 1982              | 1,549,207         | 136,055                              | 147,513           | -11,458                             | 10.5       |    |
| 1983              | 1,579,758         | 159,408           | 128,857                              | 30,551            | 12.3                                |            |    |
| 1984              | 1,507,008         | 77,003            | 149,753                              | -72,750           | 10.1                                |            |    |
| 1985              | 1,563,159         | 212,687           | 156,536                              | 56,151            | 10.0                                |            |    |
| 1986              | 1,661,216         | 230,657           | 132,600                              | 98,057            | 12.5                                |            |    |
| 1987              | 1,692,048         | 153,417           | 122,585                              | 30,832            | 13.8                                |            |    |
| 1988              | 1,587,118         | 14,428            | 119,358                              | -104,930          | 13.3                                |            |    |
| 1989              | 1,609,044         | 140,482           | 118,556                              | 21,926            | 13.6                                |            |    |
| Total (1963-1989) | --                | --                | 3,710,930                            | 4,005,988         | -295,058                            | --         |    |
| Percent Change    |                   | -15.5             | --                                   | -27.5             | --                                  | --         |    |
| Wyoming           | 1963              | 4,191,587         | 0                                    | 154,532           | 0                                   | 27.1       |    |
|                   | 1964              | 4,315,618         | 311,227                              | 187,196           | 124,031                             | 23.1       |    |
|                   | 1965              | 4,398,703         | 270,816                              | 187,731           | 83,085                              | 23.4       |    |
|                   | 1966              | 4,496,114         | 282,733                              | 185,322           | 97,411                              | 24.3       |    |
|                   | 1967              | 4,473,545         | 162,245                              | 184,814           | -22,569                             | 24.2       |    |
|                   | 1968              | 4,472,316         | 192,804                              | 194,033           | -1,229                              | 23.0       |    |
|                   | 1969              | 4,471,936         | 213,841                              | 214,221           | -380                                | 20.9       |    |
|                   | 1970              | 4,634,994         | 395,954                              | 232,898           | 163,058                             | 19.9       |    |
|                   | 1971              | 4,629,489         | 251,914                              | 257,419           | -5,505                              | 18.0       |    |
|                   | 1972              | 4,419,235         | 59,588                               | 269,842           | -210,254                            | 16.4       |    |
|                   | 1973              | 4,111,514         | -42,233                              | 265,488           | -307,721                            | 15.5       |    |
|                   | 1974              | 4,255,010         | 388,385                              | 244,889           | 143,496                             | 17.4       |    |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State                         | Year | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P <sup>a</sup> Ratio |
|-------------------------------|------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------------------|
| Wyoming                       | 1975 | 4,483,502         | 460,356                              | 231,864           | 228,492                             | 19.3                   |
|                               | 1976 | 4,393,582         | 138,626                              | 228,546           | -89,920                             | 19.2                   |
|                               | 1977 | 4,332,088         | 185,664                              | 247,158           | -61,494                             | 17.5                   |
|                               | 1978 | 4,311,824         | 224,757                              | 245,021           | -20,264                             | 17.6                   |
|                               | 1979 | 4,964,675         | 952,176                              | 299,325           | 652,851                             | 16.6                   |
|                               | 1980 | 5,421,861         | 777,667                              | 320,481           | 457,186                             | 16.9                   |
|                               | 1981 | 6,104,153         | 1,026,511                            | 344,219           | 682,292                             | 17.7                   |
|                               | 1982 | 6,293,437         | 526,918                              | 337,634           | 189,284                             | 18.6                   |
|                               | 1983 | 6,064,062         | 123,296                              | 352,671           | -229,375                            | 17.2                   |
|                               | 1984 | 5,725,977         | 34,981                               | 373,066           | -338,085                            | 15.3                   |
|                               | 1985 | 5,746,707         | 383,651                              | 362,921           | 20,730                              | 15.8                   |
|                               | 1986 | 5,256,093         | -188,526                             | 302,088           | -490,614                            | 17.4                   |
|                               | 1987 | 4,286,895         | -719,447                             | 249,751           | -969,198                            | 17.2                   |
|                               | 1988 | 3,452,276         | -625,319                             | 209,300           | -834,619                            | 16.5                   |
|                               | 1989 | 2,033,820         | -1,233,879                           | 184,577           | -1,418,456                          | 11.0                   |
| Total (1963-1989)             |      | --                | 4,554,706                            | 6,712,473         | -2,157,767                          | --                     |
| Percent Change                |      | -51.5             | --                                   | 19.4              | --                                  | --                     |
| Undifferentiated <sup>b</sup> | 1963 | 2,327,067         | 0                                    | 175,815           | 0                                   | 13.2                   |
|                               | 1964 | 2,682,769         | 565,836                              | 210,134           | 355,702                             | 12.8                   |
|                               | 1965 | 2,448,355         | -31,324                              | 203,090           | -234,414                            | 12.1                   |
|                               | 1966 | 2,484,792         | 240,387                              | 203,950           | 36,437                              | 12.2                   |
|                               | 1967 | 2,398,272         | 133,215                              | 219,735           | -86,520                             | 10.9                   |
|                               | 1968 | 2,594,910         | 429,336                              | 232,698           | 196,638                             | 11.2                   |
|                               | 1969 | 2,563,191         | 203,250                              | 234,969           | -31,719                             | 10.9                   |
|                               | 1970 | 1,673,519         | -780,356                             | 109,316           | -889,672                            | 15.3                   |
|                               | 1971 | 1,733,454         | 364,621                              | 304,686           | 59,935                              | 5.7                    |
|                               | 1972 | 248,619           | -1,418,034                           | 66,801            | -1,484,835                          | 3.7                    |
|                               | 1973 | 60,246            | -94,033                              | 94,340            | -188,373                            | .6                     |
|                               | 1974 | 82,049            | 134,340                              | 112,537           | 21,803                              | .7                     |
|                               | 1975 | 62,636            | 15,060                               | 34,473            | -19,413                             | 1.8                    |
|                               | 1976 | 68,387            | 32,214                               | 26,463            | 5,751                               | 2.6                    |
|                               | 1977 | 29,897            | 7,886                                | 46,376            | -38,490                             | .6                     |
|                               | 1978 | 27,123            | 17,094                               | 19,868            | -2,774                              | 1.4                    |
|                               | 1981 | 1,667,849         | 1,640,726                            | 0                 | 1,640,726                           | .0                     |
|                               | 1982 | 1,588,515         | -79,334                              | 0                 | -79,334                             | .0                     |
|                               | 1983 | 1,386,099         | -202,416                             | 0                 | -202,416                            | .0                     |
|                               | 1984 | 1,411,243         | 25,144                               | 0                 | 25,144                              | .0                     |
|                               | 1985 | 1,342,752         | -68,491                              | 0                 | -68,491                             | .0                     |
|                               | 1986 | 1,311,215         | -31,537                              | 0                 | -31,537                             | .0                     |
|                               | 1987 | 1,259,390         | -51,825                              | 0                 | -51,825                             | .0                     |
|                               | 1988 | 1,537,649         | 278,297                              | 38                | 278,259                             | 464.4                  |
|                               | 1989 | 1,444,276         | -93,289                              | 84                | -93,373                             | 7,193.8                |
| Total (1963-1989)             |      | --                | 1,236,767                            | 2,119,558         | -882,791                            | --                     |
| Percent Change                |      | -37.9             | --                                   | -100.0            | --                                  | --                     |
| Total All Companies           | 1963 | 188,540,057       | 0                                    | 9,350,628         | 0                                   | 20.2                   |
|                               | 1964 | 189,165,424       | 10,639,942                           | 10,014,575        | 625,367                             | 18.9                   |
|                               | 1965 | 191,899,705       | 13,105,056                           | 10,370,775        | 2,734,281                           | 18.5                   |
|                               | 1966 | 195,130,322       | 14,367,183                           | 11,136,566        | 3,230,617                           | 17.5                   |
|                               | 1967 | 194,391,527       | 10,858,254                           | 11,597,049        | -738,795                            | 16.8                   |
|                               | 1968 | 191,473,968       | 9,398,880                            | 12,316,439        | -2,917,559                          | 15.5                   |
|                               | 1969 | 184,165,368       | 5,882,915                            | 13,191,515        | -7,308,600                          | 14.0                   |
|                               | 1970 | 170,382,751       | 68,494                               | 13,851,111        | -13,782,617                         | 12.3                   |
|                               | 1971 | 158,681,804       | 2,284,002                            | 13,984,949        | -11,700,947                         | 11.3                   |
|                               | 1972 | 146,905,647       | 2,430,780                            | 14,206,937        | -11,776,157                         | 10.3                   |
|                               | 1973 | 132,374,965       | -1,032,400                           | 13,498,282        | -14,530,682                         | 9.8                    |
|                               | 1974 | 120,542,602       | 1,132,687                            | 12,965,050        | -11,832,363                         | 9.3                    |
|                               | 1975 | 106,816,456       | -1,734,398                           | 11,991,748        | -13,726,146                         | 8.9                    |
|                               | 1976 | 98,282,085        | 2,854,237                            | 11,388,608        | -8,534,371                          | 8.6                    |
|                               | 1977 | 92,888,736        | 5,527,300                            | 10,920,649        | -5,393,349                          | 8.5                    |
|                               | 1978 | 93,993,187        | 11,969,929                           | 10,865,478        | 1,104,451                           | 8.7                    |
|                               | 1979 | 97,299,098        | 14,841,878                           | 11,535,967        | 3,305,911                           | 8.4                    |
|                               | 1980 | 97,102,021        | 11,407,195                           | 11,604,272        | -197,077                            | 8.4                    |
|                               | 1981 | 98,339,488        | 13,196,777                           | 11,959,310        | 1,237,467                           | 8.2                    |
|                               | 1982 | 98,710,561        | 11,304,485                           | 10,933,412        | 371,073                             | 9.0                    |
|                               | 1983 | 94,497,523        | 5,283,864                            | 9,496,902         | -4,213,038                          | 10.0                   |
|                               | 1984 | 89,893,676        | 5,817,778                            | 10,421,625        | -4,603,847                          | 8.6                    |
|                               | 1985 | 85,101,967        | 4,126,042                            | 8,917,751         | -4,791,709                          | 9.5                    |
|                               | 1986 | 80,601,606        | 3,077,975                            | 7,578,336         | -4,500,361                          | 10.6                   |
|                               | 1987 | 65,135,136        | -8,811,454                           | 6,655,016         | -15,466,470                         | 9.8                    |
|                               | 1988 | 48,791,559        | -10,539,422                          | 5,804,155         | -16,343,577                         | 8.4                    |
|                               | 1989 | 37,670,092        | -6,278,135                           | 4,843,332         | -11,121,467                         | 7.8                    |

Note: Footnotes appear at the end of the table.

**Table 8. Dedicated Gas Reserves, Changes in Gas Reserves, Production and R/P Ratios, by State, 1963-1989 (Continued)**  
(Million Cubic Feet)

| State               | Year              | Year-End Reserves | Revisions and Additions Gain or Loss | Annual Production | Net Change in Reserves Gain or Loss | R/P <sup>a</sup> Ratio |
|---------------------|-------------------|-------------------|--------------------------------------|-------------------|-------------------------------------|------------------------|
| Total All Companies |                   |                   |                                      |                   |                                     |                        |
|                     | Total (1963-1989) | --                | 131,179,844                          | 282,049,809       | -150,869,965                        | --                     |
|                     | Percent Change    | -80.0             | --                                   | -48.2             | --                                  | ---                    |

<sup>a</sup> R/P = Reserves to Production.

<sup>b</sup> Reserves and Production which are not separable by FERC Production Areas or by States. Includes undesignated underground storage beginning in 1981.

<sup>c</sup> Warranty data prior to 1981 is not available.

--- = Not Applicable.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

# Domestic Natural Gas Supplies of Major Jurisdictional Companies

Fifty-eight respondents, consisting of 24 major<sup>2</sup> and 34 minor companies from the universe of 74 respondents, reported owned or contracted domestic natural gas reserves and production for 1989. The remaining 16 respondents reporting on Form 15 purchased their entire gas supply from another respondent or foreign supplier or purchased supplemental supplies including coal gas, LNG, and SNG (Table 13). Such supplies are not included in the domestic natural gas total.

The 24 major companies collectively accounted for 91.8 percent (34.6 trillion cubic feet) of the domestic natural gas reserves and 89.3 percent (4.3 trillion cubic feet) of the production reported by interstate pipeline companies for 1989. The balance of domestic natural

gas reserves and production, 3.1 and 0.5 trillion cubic feet respectively, was reported by the 34 minor companies (Table 9).

Annual production and purchases for the major companies indicate a decline from a high of 13.9 trillion cubic feet in 1971 and 1972 to 4.3 trillion cubic feet in 1989. Statistics also reveal a declining trend in reserves from 194.1 trillion cubic feet in 1967 to 34.6 trillion cubic feet in 1989 (Table 10).

The ratio of gross change in reserves to production for the 24 major companies in 1989 was -1.7 compared to -2.1 in 1988. A ratio less than 1 indicates a decrease in year-end reserves from the preceding year (Table 11).

<sup>2</sup>Major companies are those having over 900 billion cubic feet of domestic in-the-ground reserves at the inception of the Form 15 report or date of first filing of the form. Some of the major companies no longer have domestic in-the-ground reserves of over 900 billion cubic feet, but are still classified as such to preserve continuity of data. West Texas Gathering Co. did not file for 1989, but is included in Table 11.

**Table 9. Domestic Gas Reserves, Production, and Purchases,  
Year-End 1989**  
(Billion Cubic Feet)

| Item   | Major Companies <sup>a</sup> | Minor Companies | Total  |
|--|------------------------------|-----------------|--------|
| Number of Companies  | 24                           | 34              | 58     |
| Reserves Dedicated as of<br>December 31, 1989 :            |                              |                 |        |
| Pipeline-owned Reserves                                    | 4,562                        | 369             | 4,931  |
| Reserves Dedicated Under<br>Independent Producer Contracts | 29,777                       | 2,413           | 32,190 |
| Other Supply Contracts <sup>b</sup>                        | 239                          | 323             | 562    |
| Total  | 34,578                       | 3,105           | 37,683 |
| Percent of Total Dedicated<br>Reserves                     | 91.8                         | 8.2             | 100.0  |
| Production from Dedicated Reserves<br>During 1989 :        |                              |                 |        |
| Pipeline-owned   | 134                          | 19              | 153    |
| Dedicated Under Independent<br>Producer Contracts          | 3,958                        | 402             | 4,360  |
| Other Supply Contracts <sup>b</sup>                        | 215                          | 97              | 312    |
| Total  | 4,307                        | 518             | 4,825  |
| Percent of Total Production                                | 89.3                         | 10.7            | 100.0  |

<sup>a</sup> Major companies are those having over 900 billion cubic feet of domestic in-the-ground reserves at the inception of the Form 15 report or date of first filing of the form. Some of the major companies no longer have domestic in-the-ground reserves of over 900 billion cubic feet but are still classified as such to preserve continuity of data.

<sup>b</sup> Includes intrastate supplies pursuant to Section 311(b) and 312 of the NGPA of 1978.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 10. Domestic Reserves, Production, and Purchases of Major Gas Supply Companies,<sup>a</sup> 1963-1989**  
(Trillion Cubic Feet)

| Year | Number of Companies | Annual Production and Purchases | Year-End Gas Reserves |
|------|---------------------|---------------------------------|-----------------------|
| 1963 | 24                  | 9.0                             | 184.6                 |
| 1964 | 24                  | 9.7                             | 185.0                 |
| 1965 | 23                  | 10.0                            | 187.6                 |
| 1966 | 24                  | 10.8                            | 190.0                 |
| 1967 | 24                  | 11.5                            | 194.1                 |
| 1968 | 24                  | 12.2                            | 191.3                 |
| 1969 | 24                  | 13.1                            | 184.2                 |
| 1970 | 25                  | 13.8                            | 170.1                 |
| 1971 | 25                  | 13.9                            | 158.1                 |
| 1972 | 25                  | 13.9                            | 144.2                 |
| 1973 | 25                  | 13.4                            | 131.9                 |
| 1974 | 26                  | 12.7                            | 118.3                 |
| 1975 | 26                  | 11.7                            | 104.7                 |
| 1976 | 26                  | 11.1                            | 96.4                  |
| 1977 | 26                  | 10.7                            | 91.1                  |
| 1978 | 26                  | 10.7                            | 92.2                  |
| 1979 | 26                  | 11.3                            | 95.1                  |
| 1980 | 26                  | 11.4                            | 95.2                  |
| 1981 | 25                  | 11.6                            | 95.2                  |
| 1982 | 25                  | 10.6                            | 95.5                  |
| 1983 | 25                  | 9.2                             | 91.4                  |
| 1984 | 25                  | 10.1                            | 87.0                  |
| 1985 | 25                  | 8.5                             | 82.0                  |
| 1986 | 25                  | 7.1                             | 77.6                  |
| 1987 | 25                  | 6.1                             | 62.2                  |
| 1988 | 25                  | 5.3                             | 46.0                  |
| 1989 | 24                  | 4.3                             | 34.6                  |

<sup>a</sup> Major companies are those having over 900 billion cubic feet of domestic in-the-ground reserves at the inception of the Form 15 report or date of first filing of the form. Some of the major companies no longer have domestic in-the-ground reserves of over 900 billion cubic feet, but are still classified as such to preserve continuity of data.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 11. Gross Change in Reserves, Production, and Gross-Change Production (GC/P) Ratios of Major Companies**  
(Million Cubic Feet)

| Major Gas Company                   | Year-End Reserves |           | Annual Gross Change in Reserves*<br>Year-End Increase or Decrease |           |            |            |            | Total Change<br>12-31-84 to<br>12-31-89 |
|-------------------------------------|-------------------|-----------|---|-----------|------------|------------|------------|---|
|                                     | 1984              | 1989      | 1985  | 1986      | 1987       | 1988       | 1989       |   |
| ANR Pipeline Co                     | 2,474,452         | 1,387,299 |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | 843,030   | 223,709   | -225,930   | -424,134   | -264,437   | 152,238                                 |
| Annual Production                   |                   |           | 413,561   | 303,334   | 181,567    | 183,517    | 157,412    | 1,239,391                               |
| GC/P Ratio                          |                   |           | 2.04  | .74       | -1.24      | -2.31      | -1.68      | .12                                     |
| Arkla Inc                           | 4,265,082         | 3,345,716 |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | 35,244  | 91,608    | 99,628     | 315,761    | 35,435     | 577,676                                 |
| Annual Production                   |                   |           | 274,105   | 270,704   | 319,634    | 336,323    | 296,276    | 1,497,042                               |
| GC/P Ratio                          |                   |           | .13   | .34       | .31        | .94        | .12        | .39                                     |
| CNG Transmission Corp               | 1,546,351         | 1,265,075 |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | 93,624  | 123,413   | -1,861     | 74,291     | 12,180     | 301,647                                 |
| Annual Production                   |                   |           | 170,340   | 119,078   | 105,453    | 94,776     | 93,276     | 582,923                                 |
| GC/P Ratio                          |                   |           | .55   | 1.04      | -.02       | .78        | .13        | .52                                     |
| Colorado Interstate Gas Co          | 2,962,574         | 1,906,231 |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | -26,613   | 153,505   | 11,189     | -67,829    | -375,389   | -305,137                                |
| Annual Production                   |                   |           | 181,043   | 153,549   | 148,900    | 121,522    | 146,192    | 751,206                                 |
| GC/P Ratio                          |                   |           | -.15  | 1.00      | .08        | -.56       | -2.57      | -.41                                    |
| Columbia Gas Transmission Corp      | 4,709,817         | 4,074,105 |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | 443,911   | 1,063,272 | 83,995     | 4,633      | -92,874    | 1,502,937                               |
| Annual Production                   |                   |           | 556,990   | 530,928   | 399,779    | 393,210    | 257,742    | 2,138,649                               |
| GC/P Ratio                          |                   |           | .80   | 2.00      | .21        | .01        | -.36       | .70                                     |
| El Paso Natural Gas Co              | 15,329,214        | 2,766,095 |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | 977,785   | 350,179   | -1,606,577 | -5,520,878 | -3,921,993 | -9,721,484                              |
| Annual Production                   |                   |           | 1,007,396   | 686,372   | 686,867    | 286,963    | 174,037    | 2,841,635                               |
| GC/P Ratio                          |                   |           | .97   | .51       | -2.34      | -9.24      | -2.54      | -3.42                                   |
| Florida Gas Transmission Co         | 933,566           | 649,298   |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | 199,866   | 292,491   | 151,424    | 15,120     | 236,920    | 895,821                                 |
| Annual Production                   |                   |           | 206,019   | 207,219   | 250,220    | 249,737    | 266,894    | 1,180,089                               |
| GC/P Ratio                          |                   |           | .97   | 1.41      | .61        | .06        | .89        | .76                                     |
| K N Energy Inc                      | 1,338,601         | 993,305   |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | 12,724  | 9,158     | -32,571    | 49,686     | -13,080    | 25,917                                  |
| Annual Production                   |                   |           | 82,205  | 70,408    | 64,081     | 78,108     | 76,411     | 371,213                                 |
| GC/P Ratio                          |                   |           | .15   | .13       | -.51       | .64        | -.17       | .07                                     |
| Natural Gas Pipeline Co of America  | 5,132,067         | 1,162,315 |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | 664,471   | 87,692    | -483,149   | -2,242,616 | -113,191   | -2,086,793                              |
| Annual Production                   |                   |           | 824,313   | 551,939   | 171,265    | 177,858    | 157,584    | 1,882,959                               |
| GC/P Ratio                          |                   |           | .81   | .16       | -2.82      | -2.61      | -.72       | -1.11                                   |
| Northern Natural Div InterNorth Inc | 6,451,237         | 1,140,524 |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | -379,422  | 89,667    | -1,929,590 | -1,112,417 | -39,756    | -3,371,518                              |
| Annual Production                   |                   |           | 507,392   | 434,303   | 364,218    | 306,970    | 326,312    | 1,939,195                               |
| GC/P Ratio                          |                   |           | -.75  | .21       | -5.30      | -3.62      | -.12       | -1.74                                   |
| Northwest Pipeline Corp             | 4,905,504         | 653,822   |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | 87,019  | -491,844  | -878,892   | -904,453   | -1,569,092 | -3,757,262                              |
| Annual Production                   |                   |           | 150,213   | 112,860   | 119,766    | 83,024     | 28,557     | 494,420                                 |
| GC/P Ratio                          |                   |           | .58   | -4.36     | -7.34      | -.89       | -4.95      | -7.60                                   |
| Panhandle Eastern Pipe Line Co      | 4,007,311         | 727,845   |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | -171,925  | 321,482   | -1,370,586 | -673,313   | -680,483   | -2,574,825                              |
| Annual Production                   |                   |           | 259,041   | 225,585   | 122,664    | 57,258     | 40,093     | 704,641                                 |
| GC/P Ratio                          |                   |           | -.66  | 1.43      | -1.17      | -1.76      | -6.97      | -3.65                                   |
| Sea Robin Pipeline Co               | 432,006           | 54,720    |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | 57,066  | 5,232     | -176,903   | -58,524    | -11,041    | -184,170                                |
| Annual Production                   |                   |           | 101,380   | 59,859    | 27,412     | 3,321      | 1,144      | 193,116                                 |
| GC/P Ratio                          |                   |           | .56   | .09       | -6.45      | -7.62      | -9.65      | -.95                                    |
| Southern Natural Gas Co             | 2,030,234         | 1,183,417 |   |           |            |            |            |   |
| Gross Change in Reserves            |                   |           | 127,668   | 114,322   | 177,928    | 194,468    | -16,301    | 598,085                                 |
| Annual Production                   |                   |           | 321,110   | 306,144   | 301,515    | 278,806    | 237,327    | 1,444,902                               |
| GC/P Ratio                          |                   |           | .40   | .37       | .59        | .70        | -.07       | .41                                     |

Note: Footnotes appear at the end of the table.

**Table 11. Gross Change in Reserves, Production, and Gross-Change Production (GC/P) Ratios of Major Companies (Continued)**  
(Million Cubic Feet)

| Major Gas Company                   | Year-End Reserves |            | Annual Gross Change in Reserves*<br>Year-End Increase or Decrease |           |            |             |            | Total<br>Change<br>12-31-84 to<br>12-31-89 |
|-------------------------------------|-------------------|------------|---|-----------|------------|-------------|------------|--|
|                                     | 1984              | 1989       | 1985  | 1986      | 1987       | 1988        | 1989       |  |
| Tennessee Gas Pipeline Div Tenneco  | 6,698,981         | 2,622,099  |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | -299,054  | 546,277   | -831,264   | -257,558    | -388,176   | -1,229,775                                 |
| Annual Production                   |                   |            | 570,785   | 593,312   | 685,345    | 556,492     | 441,173    | 2,847,107                                  |
| GC/P Ratio                          |                   |            | -.52  | .92       | -1.21      | -.46        | -.88       | -.43                                       |
| Texas Eastern Transmission Corp     | 3,757,447         | 3,194,840  |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | 259,134   | 400,337   | 159,495    | 495,575     | 1,074,955  | 2,389,496                                  |
| Annual Production                   |                   |            | 634,920   | 607,576   | 598,497    | 608,828     | 502,282    | 2,952,103                                  |
| GC/P Ratio                          |                   |            | .41   | .66       | .27        | .81         | 2.14       | .81  |
| Texas Gas Transmission Corp         | 2,306,440         | 1,087,371  |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | 44,816  | 29,968    | -137,890   | -361,572    | 28,297     | -396,381                                   |
| Annual Production                   |                   |            | 310,823   | 176,084   | 121,597    | 109,998     | 104,186    | 822,688                                    |
| GC/P Ratio                          |                   |            | .14   | .17       | -1.13      | -3.29       | .27        | -.48                                       |
| Transcontinental Gas Pipe Line Corp | 5,537,290         | 2,050,256  |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | 61,854  | 180,424   | 271,369    | 168,876     | -352,049   | 330,474                                    |
| Annual Production                   |                   |            | 763,306   | 881,757   | 835,067    | 805,318     | 532,060    | 3,817,508                                  |
| GC/P Ratio                          |                   |            | .08   | .20       | .32        | .21         | -.66       | .09  |
| Transwestern Pipeline Co            | 1,571,225         | 752,818    |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | 372,303   | -157,118  | -85,998    | -47,607     | -70,649    | 10,931                                     |
| Annual Production                   |                   |            | 218,220   | 172,742   | 175,543    | 124,745     | 138,088    | 829,338                                    |
| GC/P Ratio                          |                   |            | 1.71  | -.91      | -.49       | -.38        | -.51       | .01  |
| Trunkline Gas Co                    | 1,592,674         | 644,909    |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | 7,012   | -9,113    | -31,767    | -62,535     | 61,623     | -34,780                                    |
| Annual Production                   |                   |            | 213,676   | 215,937   | 170,951    | 168,937     | 143,484    | 912,985                                    |
| GC/P Ratio                          |                   |            | .03   | -.04      | -.19       | -.37        | .43        | -.04                                       |
| United Gas Pipe Line Co             | 2,680,556         | 235,729    |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | 60,738  | -777,953  | -833,148   | -29,037     | -223,851   | -1,803,251                                 |
| Annual Production                   |                   |            | 407,067   | 132,744   | 48,659     | 32,320      | 20,786     | 641,576                                    |
| GC/P Ratio                          |                   |            | .15   | -5.86     | -7.12      | -.90        | -.77       | -2.81                                      |
| Valero Interstate Transmission Co   | 106,285           | 18,865     |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | -33,446   | 35,577    | 17,356     | -26,300     | -10,845    | -17,658                                    |
| Annual Production                   |                   |            | 11,483  | 12,979    | 18,695     | 19,848      | 6,757      | 69,762                                     |
| GC/P Ratio                          |                   |            | -2.91   | 2.74      | .93        | -1.33       | -1.61      | -.25                                       |
| West Texas Gathering Co             | 61,973            | 13,324     |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | 8,475   | 5,864     | 5,011      | -52,568     | 0          | -33,218                                    |
| Annual Production                   |                   |            | 11,411  | 2,151     | 1,278      | 591         | 0          | 15,431                                     |
| GC/P Ratio                          |                   |            | .74   | 2.73      | 3.92       | -8.95       | .00        | -2.15                                      |
| Williams Natural Gas Co             | 5,214,675         | 2,267,363  |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | 31,170  | 30,995    | -1,300,083 | -297,971    | -413,880   | -1,949,769                                 |
| Annual Production                   |                   |            | 259,024   | 261,543   | 191,093    | 153,892     | 131,991    | 997,543                                    |
| GC/P Ratio                          |                   |            | .12   | .12       | -6.80      | -1.94       | -3.14      | -1.95                                      |
| Williston Basin Interstate Pipeline | 933,673           | 393,798    |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | 19,859  | 38,020    | -310,835   | -126,374    | 6,916      | -372,414                                   |
| Annual Production                   |                   |            | 40,795  | 40,324    | 28,945     | 30,333      | 27,064     | 167,461                                    |
| GC/P Ratio                          |                   |            | .49   | .94       | -.74       | -4.17       | .26        | -2.22                                      |
| Total                               | 86,979,235        | 34,591,139 |   |           |            |             |            |  |
| Gross Change in Reserves            |                   |            | 3,497,309   | 2,757,164 | -9,259,649 | -10,947,276 | -7,100,761 | -21,053,213                                |
| Annual Production                   |                   |            | 8,496,618   | 7,129,431 | 6,139,011  | 5,262,695   | 4,307,128  | 31,334,883                                 |
| GC/P Ratio                          |                   |            | .41   | .39       | -1.51      | -2.08       | -1.65      | -.67                                       |

\* Gross change in reserves is the net change in reserves plus annual production. Interstate pipeline purchases, pipeline imports, coal gasification, liquefied natural gas, and synthetic natural gas are excluded.

Note: GC/P = Ratio of Gross Change to Production.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

## Total Gas Supplies of the Jurisdictional Interstate Pipeline Companies

The total gas supplies of interstate pipeline companies consist of the dedicated, salable natural gas available from company-owned in-the-ground reserves, including gas in underground storage, reserves dedicated to or warranted under contracts with independent producers, gas purchased under contracts with other interstate pipeline companies, intrastate supplies contracted pursuant to Section 311(b) and 312 of the Natural Gas Policy Act of 1978, domestically produced coal gas, LNG, SNG, and imported natural gas and LNG.

The total gas supplies of each interstate pipeline company controlling a share of the dedicated domestic reserves are shown in detail in Table 12. Table 13 provides an account of the gas supplies of interstate pipeline companies that purchased their entire gas supply from another respondent, foreign supplier, or other source constituting supplies not considered to be domestic in-the-ground reserves. Presentation of the data in two tables clearly distinguishes those companies reporting gas supplies considered to be additive to domestic in-the-ground reserves from companies reporting gas that is not considered to be additive.



*Natural gas pipeline being lowered into trench. Photo courtesy: Bob Thigpen, Texas Eastern Transmission Corp.*

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves**  
(Million Cubic Feet)

| Company Name and Gas Supply Source       | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|--|---------------------------|-----------------------|----------------------|-----------------------|
|  | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Major Gas Supply Companies</b>        |                           |                       |                      |                       |
| <b>ANR Pipeline Co</b>                   |                           |                       |                      |                       |
| Gas Reserves                             |                           |                       |                      |                       |
| Company Owned                            | 0                         | 0.00                  | 114,063              | 6.12                  |
| Producer Contracts                       | 157,412                   | 92.06                 | 1,273,236            | 68.31                 |
| Subtotal                                 | 157,412                   | 92.06                 | 1,387,299            | 74.43                 |
| Domestic Gas Supply                      |                           |                       |                      |                       |
| Interstate Pipeline Purchases            |                           |                       |                      |                       |
| Great Lakes Gas Transmission Co          | 0                         | 0.00                  | 5,795                | .31                   |
| Northern Natural Div InterNorth Inc      | 0                         | 0.00                  | 27,243               | 1.46                  |
| Coal Gasification Purchases              |                           |                       |                      |                       |
| Dakota Gasification Co <sup>a</sup>      | 13,584                    | 7.94                  | 244,000              | 13.09                 |
| Subtotal                                 | 13,584                    | 7.94                  | 388,466              | 20.84                 |
| Import Gas Supply                        |                           |                       |                      |                       |
| Pipeline Purchases                       |                           |                       |                      |                       |
| Progas Ltd <sup>a</sup>                  | 0                         | 0.00                  | 73,000               | 3.92                  |
| Trans-Canada P L Ltd <sup>a</sup>        | 0                         | 0.00                  | 15,200               | .82                   |
| Subtotal                                 | 0                         | 0.00                  | 88,200               | 4.73                  |
| Company Total Gas Supply                 | 170,996                   | 100.00                | 1,863,965            | 100.00                |
| <b>Arkla Inc</b>                         |                           |                       |                      |                       |
| Gas Reserves                             |                           |                       |                      |                       |
| Company Owned                            | 0                         | 0.00                  | 31,088               | .88                   |
| Producer Contracts                       | 295,889                   | 96.45                 | 3,307,048            | 93.62                 |
| Subtotal                                 | 295,889                   | 96.45                 | 3,338,136            | 94.50                 |
| Domestic Gas Supply                      |                           |                       |                      |                       |
| Interstate Pipeline Purchases            |                           |                       |                      |                       |
| Mississippi River Transmission Corp      | 3,462                     | 1.13                  | 64,480               | 1.83                  |
| Natural Gas Pipeline Co of America       | 5                         | .00                   | 80                   | .00                   |
| Tennessee Gas Pipeline Div Tenneco       | 60                        | .02                   | 1,200                | .03                   |
| Texas Eastern Transmission Corp          | 483                       | .16                   | 9,200                | .26                   |
| Texas Gas Transmission Corp              | 5,155                     | 1.68                  | 84,420               | 2.39                  |
| United Gas Pipe Line Co                  | 1,161                     | .38                   | 23,920               | .68                   |
| Williams Natural Gas Co                  | 182                       | .06                   | 3,360                | .10                   |
| Intrastate Pipeline Purchases            |                           |                       |                      |                       |
| Oneok Inc <sup>a</sup>                   | 387                       | .13                   | 7,580                | .21                   |
| Subtotal                                 | 10,895                    | 3.55                  | 194,240              | 5.50                  |
| Company Total Gas Supply                 | 306,784                   | 100.00                | 3,532,376            | 100.00                |
| <b>CNG Transmission Corp<sup>1</sup></b> |                           |                       |                      |                       |
| Gas Reserves                             |                           |                       |                      |                       |
| Company Owned                            | 18,267                    | 7.29                  | 469,426              | 3.86                  |
| Producer Contracts                       | 75,009                    | 29.94                 | 795,649              | 6.54                  |
| Subtotal                                 | 93,276                    | 37.23                 | 1,265,075            | 10.40                 |
| Domestic Gas Supply                      |                           |                       |                      |                       |
| Interstate Pipeline Purchases            |                           |                       |                      |                       |
| Tennessee Gas Pipeline Div Tenneco       | 37,758                    | 15.07                 | 4,500,945            | 36.98                 |
| Texas Eastern Transmission Corp          | 115,373                   | 46.05                 | 4,540,473            | 37.32                 |
| Texas Gas Transmission Corp              | 4,124                     | 1.65                  | 1,861,960            | 15.30                 |
| Subtotal                                 | 157,255                   | 62.77                 | 10,902,478           | 89.60                 |
| Company Total Gas Supply                 | 250,531                   | 100.00                | 12,167,553           | 100.00                |
| <b>Colorado Interstate Gas Co</b>        |                           |                       |                      |                       |
| Gas Reserves                             |                           |                       |                      |                       |
| Company Owned                            | 39,746                    | 27.19                 | 568,812              | 29.84                 |
| Producer Contracts                       | 106,446                   | 72.81                 | 1,337,419            | 70.16                 |
| Company Total Gas Supply                 | 146,192                   | 100.00                | 1,906,231            | 100.00                |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source      | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|---|---------------------------|-----------------------|----------------------|-----------------------|
|   | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Major Gas Supply Companies</b>       |                           |                       |                      |                       |
| Columbia Gas Transmission Corp          |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Company Owned                           | 35,600                    | 13.10                 | 1,041,224            | 24.40                 |
| Producer Contracts                      | 222,142                   | 81.72                 | 3,032,881            | 71.06                 |
| Subtotal                                | 257,742                   | 94.81                 | 4,074,105            | 95.45                 |
| Domestic Gas Supply                     |                           |                       |                      |                       |
| Interstate Pipeline Purchases           |                           |                       |                      |                       |
| Kentucky West Va Gas Co                 | 0                         | .00                   | 102,550              | 2.40                  |
| Tennessee Gas Pipeline Div Tenneco      | 1,136                     | .42                   | 73,290               | 1.72                  |
| Texas Eastern Transmission Corp         | 10,756                    | 3.96                  | 18,192               | .43                   |
| Transcontinental Gas Pipe Line Corp     | 2,210                     | .81                   | 0                    | .00                   |
| Subtotal                                | 14,102                    | 5.19                  | 194,032              | 4.55                  |
| Company Total Gas Supply                | 271,844                   | 100.00                | 4,268,137            | 100.00                |
| El Paso Natural Gas Co                  |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Company Owned                           | 12,898                    | 7.41                  | 247,713              | 8.96                  |
| Producer Contracts                      | 161,139                   | 92.59                 | 2,518,382            | 91.04                 |
| Company Total Gas Supply                | 174,037                   | 100.00                | 2,766,095            | 100.00                |
| Florida Gas Transmission Co             |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Producer Contracts                      | 124,399                   | 46.56                 | 465,278              | 69.70                 |
| Domestic Gas Supply                     |                           |                       |                      |                       |
| Interstate Pipeline Purchases           |                           |                       |                      |                       |
| Southern Natural Gas Co                 | 298                       | .11                   | 18,263               | 2.74                  |
| Intrastate Pipeline Purchases           |                           |                       |                      |                       |
| Excel Gas Marketing Inc <sup>a</sup>    | 5,793                     | 2.17                  | 5,164                | .77                   |
| Pan National Gas Sales INC <sup>a</sup> | 2,435                     | .91                   | 4,849                | .73                   |
| Panhandle Gas Co <sup>a</sup>           | 134,267                   | 50.25                 | 174,007              | 26.07                 |
| Subtotal                                | 142,793                   | 53.44                 | 202,283              | 30.30                 |
| Company Total Gas Supply                | 267,192                   | 100.00                | 667,561              | 100.00                |
| K N Energy Inc                          |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Company Owned                           | 0                         | .00                   | 61,032               | 5.93                  |
| Producer Contracts                      | 76,411                    | 97.10                 | 932,273              | 90.58                 |
| Subtotal                                | 76,411                    | 97.10                 | 993,305              | 96.51                 |
| Domestic Gas Supply                     |                           |                       |                      |                       |
| Interstate Pipeline Purchases           |                           |                       |                      |                       |
| Colorado Interstate Gas Co              | 1,411                     | 1.79                  | 13,187               | 1.28                  |
| Northern Natural Div InterNorth Inc     | 303                       | .39                   | 19,413               | 1.89                  |
| Panhandle Eastern Pipe Line Co          | 570                       | .72                   | 3,279                | .32                   |
| Subtotal                                | 2,284                     | 2.90                  | 35,879               | 3.49                  |
| Company Total Gas Supply                | 78,695                    | 100.00                | 1,029,184            | 100.00                |
| Natural Gas Pipeline Co of America      |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Company Owned                           | 14,781                    | 4.12                  | 398,362              | 25.36                 |
| Producer Contracts                      | 142,159                   | 39.61                 | 756,113              | 48.13                 |
| Subtotal                                | 156,940                   | 43.73                 | 1,154,475            | 73.49                 |
| Domestic Gas Supply                     |                           |                       |                      |                       |
| Interstate Pipeline Purchases           |                           |                       |                      |                       |
| Cimarron Transmission Co                | 555                       | .15                   | 0                    | .00                   |
| Great Lakes Gas Transmission Co         | 51,424                    | 14.33                 | 52,083               | 3.32                  |
| Valero Interstate Transmission Co       | 146                       | .04                   | 0                    | .00                   |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source     | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|--|---------------------------|-----------------------|----------------------|-----------------------|
|  | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Major Gas Supply Companies</b>      |                           |                       |                      |                       |
| Natural Gas Pipeline Co of America     |                           |                       |                      |                       |
| Domestic Gas Supply                    |                           |                       |                      |                       |
| Intrastate Pipeline Purchases          |                           |                       |                      |                       |
| Acacia Pipeline Corp <sup>a</sup>      | 573                       | 0.16                  | 7,840                | 0.50                  |
| MV Pipeline Co <sup>a</sup>            | 71                        | .02                   | 0                    | .00                   |
| Coal Gasification Purchases            |                           |                       |                      |                       |
| Great Plains Gasification <sup>a</sup> | 10,876                    | 3.03                  | 207,260              | 13.19                 |
| Subtotal                               | 63,645                    | 17.73                 | 267,183              | 17.01                 |
| Import Gas Supply                      |                           |                       |                      |                       |
| Pipeline Purchases                     |                           |                       |                      |                       |
| Progas Limited <sup>a</sup>            | 25,865                    | 7.21                  | 77,551               | 4.94                  |
| Other Gas Supply                       |                           |                       |                      |                       |
| Amoco Production <sup>a</sup>          | 1,560                     | .43                   | 0                    | .00                   |
| Arco Oil & Gas <sup>a</sup>            | 4,584                     | 1.28                  | 0                    | .00                   |
| Associated Intrastate PI <sup>a</sup>  | 377                       | .11                   | 0                    | .00                   |
| Associated Natural Gas Co <sup>a</sup> | 559                       | .16                   | 0                    | .00                   |
| Corpus Christi Oil & Gas <sup>a</sup>  | 541                       | .15                   | 0                    | .00                   |
| GSF Energy Inc <sup>a</sup>            | 198                       | .06                   | 0                    | .00                   |
| Gulf Energy Marketing <sup>a</sup>     | 2,253                     | .63                   | 9,747                | .62                   |
| Mobil Natural Gas Inc <sup>a</sup>     | 11,440                    | 3.19                  | 39,031               | 2.48                  |
| Natural Gas Clearinghouse <sup>a</sup> | 4,933                     | 1.37                  | 0                    | .00                   |
| Odeco Oil & Gas <sup>a</sup>           | 465                       | .13                   | 0                    | .00                   |
| Phillips Petroleum <sup>a</sup>        | 1,635                     | .46                   | 0                    | .00                   |
| PSI, Inc <sup>a</sup>                  | 2,630                     | .73                   | 1,760                | .11                   |
| Sante Fe Energy <sup>a</sup>           | 636                       | .18                   | 0                    | .00                   |
| Shell Gas Trading Company <sup>a</sup> | 22,521                    | 5.28                  | 21,100               | 1.34                  |
| Sonac Exploration <sup>a</sup>         | 418                       | .12                   | 0                    | .00                   |
| Tennasco Corporation <sup>a</sup>      | 30                        | .01                   | 104                  | .01                   |
| Varios <sup>a</sup>                    | 57,607                    | 16.05                 | 0                    | .00                   |
| Vengas Marketing Company <sup>a</sup>  | 38                        | .01                   | 0                    | .00                   |
| Company Total Gas Supply               | 358,875                   | 100.00                | 1,570,951            | 100.00                |
| Northern Natural Div InterNorth Inc    |                           |                       |                      |                       |
| Gas Reserves                           |                           |                       |                      |                       |
| Company Owned                          | 0                         | .00                   | 101,897              | 6.28                  |
| Producer Contracts                     | 324,847                   | 80.06                 | 1,032,431            | 63.65                 |
| Subtotal                               | 324,847                   | 80.06                 | 1,134,328            | 69.94                 |
| Domestic Gas Supply                    |                           |                       |                      |                       |
| Interstate Pipeline Purchases          |                           |                       |                      |                       |
| Northwest Alaskan Pipeline Co          | 61,663                    | 15.20                 | 326,939              | 20.16                 |
| Intrastate Pipeline Purchases          |                           |                       |                      |                       |
| Getty Oil Company <sup>a</sup>         | 1,465                     | .36                   | 6,196                | .38                   |
| Subtotal                               | 63,128                    | 15.56                 | 333,135              | 20.54                 |
| Import Gas Supply                      |                           |                       |                      |                       |
| Pipeline Purchases                     |                           |                       |                      |                       |
| Transcanada Pipeline <sup>a</sup>      | 17,803                    | 4.39                  | 154,487              | 9.52                  |
| Company Total Gas Supply               | 405,778                   | 100.00                | 1,621,950            | 100.00                |
| Northwest Pipeline Corp                |                           |                       |                      |                       |
| Gas Reserves                           |                           |                       |                      |                       |
| Company Owned                          | 9,979                     | 22.42                 | 405,801              | 31.59                 |
| Producer Contracts                     | 18,578                    | 41.74                 | 248,021              | 19.31                 |
| Subtotal                               | 28,557                    | 64.16                 | 653,822              | 50.89                 |
| Import Gas Supply                      |                           |                       |                      |                       |
| Pipeline Purchases                     |                           |                       |                      |                       |
| Westcoast Transmission <sup>a</sup>    | 15,953                    | 35.84                 | 630,859              | 49.11                 |
| Company Total Gas Supply               | 44,510                    | 100.00                | 1,284,681            | 100.00                |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source       | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|--|---------------------------|-----------------------|----------------------|-----------------------|
|  | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Major Gas Supply Companies</b>        |                           |                       |                      |                       |
| Panhandle Eastern Pipe Line Co           |                           |                       |                      |                       |
| Gas Reserves                             |                           |                       |                      |                       |
| Company Owned                            | 0                         | 0.00                  | 113,023              | 9.25                  |
| Producer Contracts                       | 34,674                    | 50.02                 | 584,651              | 47.84                 |
| Subtotal                                 | 34,674                    | 50.02                 | 697,674              | 57.08                 |
| Domestic Gas Supply                      |                           |                       |                      |                       |
| Interstate Pipeline Purchases            |                           |                       |                      |                       |
| K N Energy Inc                           | 1,349                     | 1.95                  | 0                    | .00                   |
| Northwest Alaskan Pipeline Co            | 26,515                    | 38.25                 | 319,350              | 26.13                 |
| Trunkline Gas Co                         | 51                        | .07                   | 171,191              | 14.01                 |
| Western Gas Interstate Co                | 0                         | .00                   | 198                  | .02                   |
| Zenith Natural Gas Co                    | 1,309                     | 1.89                  | 3,622                | .30                   |
| Intrastate Pipeline Purchases            |                           |                       |                      |                       |
| Amoco Production <sup>a</sup>            | 5,245                     | 7.57                  | 30,171               | 2.47                  |
| Continental Natural Gas Inc <sup>a</sup> | 174                       | .25                   | 0                    | .00                   |
| Subtotal                                 | 34,643                    | 49.98                 | 524,532              | 42.92                 |
| Company Total Gas Supply                 | 69,317                    | 100.00                | 1,222,206            | 100.00                |
| Sea Robin Pipeline Co                    |                           |                       |                      |                       |
| Gas Reserves                             |                           |                       |                      |                       |
| Producer Contracts                       | 1,144                     | 98.96                 | 54,720               | 100.00                |
| Other Gas Supply                         |                           |                       |                      |                       |
| Unidentified <sup>a</sup>                | 12                        | 1.04                  | 0                    | .00                   |
| Company Total Gas Supply                 | 1,156                     | 100.00                | 54,720               | 100.00                |
| Southern Natural Gas Co                  |                           |                       |                      |                       |
| Gas Reserves                             |                           |                       |                      |                       |
| Company Owned                            | 0                         | .00                   | 100,893              | 8.12                  |
| Producer Contracts                       | 237,327                   | 99.45                 | 1,082,524            | 87.08                 |
| Subtotal                                 | 237,327                   | 99.45                 | 1,183,417            | 95.19                 |
| Domestic Gas Supply                      |                           |                       |                      |                       |
| Interstate Pipeline Purchases            |                           |                       |                      |                       |
| Border Gas Inc                           | 0                         | .00                   | 29,220               | 2.35                  |
| Sea Robin Pipeline Co                    | 0                         | .00                   | 30,520               | 2.46                  |
| United Gas Pipe Line Co                  | 1,310                     | .55                   | 0                    | .00                   |
| Subtotal                                 | 1,310                     | .55                   | 59,740               | 4.81                  |
| Company Total Gas Supply                 | 238,637                   | 100.00                | 1,243,157            | 100.00                |
| Tennessee Gas Pipeline Div Tenneco       |                           |                       |                      |                       |
| Gas Reserves                             |                           |                       |                      |                       |
| Company Owned                            | 0                         | .00                   | 116,104              | 3.04                  |
| Producer Contracts                       | 441,173                   | 91.83                 | 2,505,995            | 65.66                 |
| Subtotal                                 | 441,173                   | 91.83                 | 2,622,099            | 68.70                 |
| Domestic Gas Supply                      |                           |                       |                      |                       |
| Interstate Pipeline Purchases            |                           |                       |                      |                       |
| Border Gas Inc                           | 0                         | .00                   | 287,547              | 7.53                  |
| Gulf Energy Marketing <sup>a</sup>       | 6,959                     | 1.45                  | 14,953               | .39                   |
| Coal Gasification Purchases              |                           |                       |                      |                       |
| Great Plains Gasification <sup>a</sup>   | 27,119                    | 5.64                  | 273,453              | 7.17                  |
| Subtotal                                 | 34,078                    | 7.09                  | 575,953              | 15.09                 |
| Import Gas Supply                        |                           |                       |                      |                       |
| Pipeline Purchases                       |                           |                       |                      |                       |
| Progas <sup>a</sup>                      | 5,185                     | 1.08                  | 618,457              | 16.20                 |
| Company Total Gas Supply                 | 480,436                   | 100.00                | 3,816,509            | 100.00                |
| Texas Eastern Transmission Corp          |                           |                       |                      |                       |
| Gas Reserves                             |                           |                       |                      |                       |
| Company Owned                            | 1,100                     | .19                   | 113,396              | 3.09                  |

Note: Footnote appears at the end of the table

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source       | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|--|---------------------------|-----------------------|----------------------|-----------------------|
|  | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Major Gas Supply Companies</b>        |                           |                       |                      |                       |
| Texas Eastern Transmission Corp          |                           |                       |                      |                       |
| Gas Reserves                             |                           |                       |                      |                       |
| Producer Contracts                       | 445,415                   | .12                   | 3,081,444            | 84.03                 |
| Subtotal                                 | 446,515                   | .7.31                 | 3,194,840            | 87.12                 |
| Domestic Gas Supply                      |                           |                       |                      |                       |
| Interstate Pipeline Purchases            |                           |                       |                      |                       |
| Southern Natural Gas Co                  | 536                       | .09                   | 0                    | .00                   |
| Texas Gas Pipeline Corp                  | 1,178                     | .20                   | 2,000                | .05                   |
| Texas Gas Transmission Corp              | 57,444                    | 9.95                  | 43,147               | 1.18                  |
| United Gas Pipe Line Co                  | 1,644                     | .28                   | 200,700              | 5.47                  |
| Intrastate Pipeline Purchases            |                           |                       |                      |                       |
| Anthem Energy Co <sup>a</sup>            | 124                       | .02                   | 0                    | .00                   |
| Associated Natural Gas Co <sup>a</sup>   | 1,711                     | .30                   | 0                    | .00                   |
| Bishop Pipeline Corp <sup>a</sup>        | 9                         | .00                   | 0                    | .00                   |
| CNG Producing Co <sup>a</sup>            | 246                       | .04                   | 0                    | .00                   |
| Concorde Gas Marketing Inc <sup>a</sup>  | 2,064                     | .36                   | 0                    | .00                   |
| Diamond Pipeline Company <sup>a</sup>    | 2,318                     | .40                   | 0                    | .00                   |
| Energy Marketing Exchg Inc <sup>a</sup>  | 28                        | .00                   | 0                    | .00                   |
| Energy Production Corp (TX) <sup>a</sup> | 3,644                     | .63                   | 0                    | .00                   |
| Enermark Gas Gathering Co <sup>a</sup>   | 202                       | .03                   | 0                    | .00                   |
| Equitable Resources Market <sup>a</sup>  | 781                       | .14                   | 0                    | .00                   |
| Exxon Corp (tx) <sup>a</sup>             | 448                       | .08                   | 0                    | .00                   |
| Four Point Energy Company <sup>a</sup>   | 1,219                     | .21                   | 0                    | .00                   |
| Graham Energy Marketing Co <sup>a</sup>  | 378                       | .07                   | 0                    | .00                   |
| Hunt Petroleum Co <sup>a</sup>           | 370                       | .06                   | 0                    | .00                   |
| Jay-Cor 88 Joint Venture <sup>a</sup>    | 1,410                     | .24                   | 0                    | .00                   |
| Jaywell Energy Corp <sup>a</sup>         | 679                       | .12                   | 0                    | .00                   |
| Jerrico Energy Inc (TX) <sup>a</sup>     | 134                       | .02                   | 0                    | .00                   |
| Koch Hydrocarbon <sup>a</sup>            | 220                       | .04                   | 0                    | .00                   |
| Loutex Energy Inc <sup>a</sup>           | 733                       | .13                   | 0                    | .00                   |
| Marathon Oil Co <sup>a</sup>             | 123                       | .02                   | 0                    | .00                   |
| Meridian <sup>a</sup>                    | 26                        | .00                   | 0                    | .00                   |
| Midcon Marketing Corp <sup>a</sup>       | 18,133                    | 3.14                  | 0                    | .00                   |
| Mitchell Energy & Oil <sup>a</sup>       | 24                        | .00                   | 0                    | .00                   |
| Mobil Natural Gas Inc <sup>a</sup>       | 29                        | .01                   | 0                    | .00                   |
| Olympic Pipeline Company <sup>a</sup>    | 6                         | .00                   | 0                    | .00                   |
| Oryx Energy Company <sup>a</sup>         | 587                       | .10                   | 0                    | .00                   |
| Pan National Gas Sales INC <sup>a</sup>  | 439                       | .08                   | 0                    | .00                   |
| Pennzoil Gas Marketing Co <sup>a</sup>   | 11,791                    | 2.04                  | 0                    | .00                   |
| PSI, Inc <sup>a</sup>                    | 229                       | .04                   | 0                    | .00                   |
| Sunbelt Oilfield Service I <sup>a</sup>  | 292                       | .05                   | 0                    | .00                   |
| Tejas Hydrocarbon <sup>a</sup>           | 1,127                     | .20                   | 0                    | .00                   |
| Texaco Gas Marketing Inc <sup>a</sup>    | 1,005                     | .17                   | 0                    | .00                   |
| Texcol Gas Services Inc <sup>a</sup>     | 600                       | .10                   | 0                    | .00                   |
| Texas Eastern Gas Services <sup>a</sup>  | 3,829                     | .66                   | 0                    | .00                   |
| Vesta Energy Co <sup>a</sup>             | 303                       | .05                   | 0                    | .00                   |
| VHC Gas Systems LPD. <sup>a</sup>        | 476                       | .08                   | 0                    | .00                   |
| Wilmar Pipelines Inc <sup>a</sup>        | 18                        | .00                   | 0                    | .00                   |
| Woodward Marketing Inc <sup>a</sup>      | 12                        | .00                   | 0                    | .00                   |
| Subtotal                                 | 116,569                   | 20.18                 | 245,847              | 6.70                  |
| Import Gas Supply                        |                           |                       |                      |                       |
| Pipeline Purchases                       |                           |                       |                      |                       |
| Progas Ltd <sup>a</sup>                  | 14,476                    | 2.51                  | 226,499              | 6.18                  |
| Company Total Gas Supply                 | 577,560                   | 100.00                | 3,667,186            | 100.00                |
| Texas Gas Transmission Corp              |                           |                       |                      |                       |
| Gas Reserves                             |                           |                       |                      |                       |
| Company Owned                            | 9                         | .01                   | 106,258              | 5.42                  |
| Producer Contracts                       | 98,678                    | 63.06                 | 981,113              | 50.05                 |
| Subtotal                                 | 98,687                    | 63.07                 | 1,087,371            | 55.47                 |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source      | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|---|---------------------------|-----------------------|----------------------|-----------------------|
|   | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Major Gas Supply Companies</b>       |                           |                       |                      |                       |
| Texas Gas Transmission Corp             |                           |                       |                      |                       |
| Domestic Gas Supply                     |                           |                       |                      |                       |
| Interstate Pipeline Purchases           |                           |                       |                      |                       |
| Tennessee Gas Pipeline Div Tenneco      | 3,463                     | 2.21                  | 114,409              | 5.84                  |
| Texas Eastern Transmission Corp         | 48,833                    | 31.21                 | 758,345              | 38.69                 |
| Intrastate Pipeline Purchases           |                           |                       |                      |                       |
| Access Energy <sup>a</sup>              | 35                        | .02                   | 0                    | .00                   |
| American Central Gas Mktg <sup>a</sup>  | 82                        | .05                   | 0                    | .00                   |
| Amoco Production <sup>a</sup>           | 445                       | .28                   | 0                    | .00                   |
| Arkla Gas Company <sup>a</sup>          | 242                       | .15                   | 0                    | .00                   |
| Associated Natural Gas Co <sup>a</sup>  | 619                       | .40                   | 0                    | .00                   |
| BP Operating Company <sup>a</sup>       | 363                       | .23                   | 0                    | .00                   |
| Catamount Natural Gas Inc <sup>a</sup>  | 155                       | .10                   | 0                    | .00                   |
| Citizens Gas Supply Corp <sup>a</sup>   | 77                        | .05                   | 0                    | .00                   |
| CNG Producing Co <sup>a</sup>           | 348                       | .22                   | 0                    | .00                   |
| Entrade Corp <sup>a</sup>               | 154                       | .10                   | 0                    | .00                   |
| Four Point Energy Company <sup>a</sup>  | 111                       | .07                   | 0                    | .00                   |
| Ladd Gas Marketing Inc <sup>a</sup>     | 34                        | .02                   | 0                    | .00                   |
| Polaris Pipeline Co <sup>a</sup>        | 18                        | .01                   | 0                    | .00                   |
| Reliance Gas Marketing <sup>a</sup>     | 14                        | .01                   | 0                    | .00                   |
| Texaco Gas Marketing Inc <sup>a</sup>   | 2,801                     | 1.79                  | 0                    | .00                   |
| TXG Gas Marketing Company <sup>a</sup>  | 1                         | .00                   | 0                    | .00                   |
| Subtotal                                | 57,795                    | 36.93                 | 872,754              | 44.53                 |
| Company Total Gas Supply                | 156,482                   | 100.00                | 1,960,125            | 100.00                |
| Transcontinental Gas Pipe Line Corp     |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Company Owned                           | 0                         | .00                   | 76,562               | 3.61                  |
| Producer Contracts                      | 532,060                   | 97.19                 | 1,973,694            | 93.13                 |
| Subtotal                                | 532,060                   | 97.19                 | 2,050,256            | 96.75                 |
| Domestic Gas Supply                     |                           |                       |                      |                       |
| Interstate Pipeline Purchases           |                           |                       |                      |                       |
| Texas Gas Pipeline Corp                 | 1,774                     | .32                   | 3,228                | .15                   |
| Coal Gasification Purchases             |                           |                       |                      |                       |
| Great Plains Gasification <sup>a</sup>  | 13,583                    | 2.48                  | 65,736               | 3.10                  |
| Subtotal                                | 15,357                    | 2.81                  | 68,964               | 3.25                  |
| Company Total Gas Supply                | 547,417                   | 100.00                | 2,119,220            | 100.00                |
| Transwestern Pipeline Co                |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Producer Contracts                      | 138,088                   | 100.00                | 752,818              | 100.00                |
| Company Total Gas Supply                | 138,088                   | 100.00                | 752,818              | 100.00                |
| Trunkline Gas Co                        |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Company Owned                           | 0                         | .00                   | 24,653               | 3.82                  |
| Producer Contracts                      | 141,050                   | 98.30                 | 620,256              | 96.18                 |
| Subtotal                                | 141,050                   | 98.30                 | 644,909              | 100.00                |
| Domestic Gas Supply                     |                           |                       |                      |                       |
| Intrastate Pipeline Purchases           |                           |                       |                      |                       |
| Access Energy Corporation <sup>a</sup>  | 13                        | .01                   | 0                    | .00                   |
| Gulf Oil Corp <sup>a</sup>              | 8                         | .01                   | 0                    | .00                   |
| Mobil Natural Gas Inc <sup>a</sup>      | 388                       | .27                   | 0                    | .00                   |
| Pan National Gas Sales INC <sup>a</sup> | 1,542                     | 1.07                  | 0                    | .00                   |
| Transamerican Natural Gas <sup>a</sup>  | 483                       | .34                   | 0                    | .00                   |
| Subtotal                                | 2,434                     | 1.70                  | 0                    | .00                   |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source      | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|---|---------------------------|-----------------------|----------------------|-----------------------|
|   | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Major Gas Supply Companies</b>       |                           |                       |                      |                       |
| Trunkline Gas Co                        |                           |                       |                      |                       |
| Company Total Gas Supply                | 143,484                   | 100.00                | 644,909              | 100.00                |
| United Gas Pipe Line Co                 |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Company Owned                           | 0                         | .00                   | 66,523               | 25.29                 |
| Producer Contracts                      | 20,236                    | 61.87                 | 166,056              | 63.12                 |
| Subtotal                                | 20,236                    | 61.87                 | 232,579              | 88.40                 |
| Domestic Gas Supply                     |                           |                       |                      |                       |
| Interstate Pipeline Purchases           |                           |                       |                      |                       |
| Sea Robin Pipeline Co                   | 297                       | .91                   | 27,360               | 10.40                 |
| Unidentified <sup>a</sup>               | 9,029                     | 27.61                 | 0                    | .00                   |
| Intrastate Pipeline Purchases           |                           |                       |                      |                       |
| Despot Exploration <sup>a</sup>         | 0                         | .00                   | 24                   | .01                   |
| G M Jordan <sup>a</sup>                 | 0                         | .00                   | 393                  | .15                   |
| J H Bond <sup>a</sup>                   | 10                        | .03                   | 84                   | .03                   |
| Koch Hydrocarbon <sup>a</sup>           | 151                       | .46                   | 268                  | .10                   |
| LGS Exploration Production <sup>a</sup> | 0                         | .00                   | 98                   | .04                   |
| Majestic <sup>a</sup>                   | 0                         | .00                   | 607                  | .23                   |
| Rutherford Oil Corp <sup>a</sup>        | 0                         | .00                   | 47                   | .02                   |
| Texas Crude Inc Enterprise <sup>a</sup> | 0                         | .00                   | 18                   | .01                   |
| Unidentified <sup>a</sup>               | 4                         | .01                   | 0                    | .00                   |
| Union Oil Of California <sup>a</sup>    | 384                       | 1.17                  | 1,356                | .52                   |
| Vernon Faulconer <sup>a</sup>           | 0                         | .00                   | 165                  | .06                   |
| Wintershall <sup>a</sup>                | 1                         | .00                   | 90                   | .03                   |
| Subtotal                                | 9,876                     | 30.20                 | 30,510               | 11.60                 |
| Other Gas Supply                        |                           |                       |                      |                       |
| Unidentified <sup>a</sup>               | 2,594                     | 7.93                  | 0                    | .00                   |
| Company Total Gas Supply                | 32,706                    | 100.00                | 263,089              | 100.00                |
| Valero Interstate Transmission Co       |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Producer Contracts                      | 6,757                     | 100.00                | 18,865               | 100.00                |
| Company Total Gas Supply                | 6,757                     | 100.00                | 18,865               | 100.00                |
| Williams Natural Gas Co                 |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Company Owned                           | 0                         | .00                   | 126,426              | 5.51                  |
| Producer Contracts                      | 131,991                   | 98.11                 | 2,140,937            | 93.38                 |
| Subtotal                                | 131,991                   | 98.11                 | 2,267,363            | 98.89                 |
| Domestic Gas Supply                     |                           |                       |                      |                       |
| Interstate Pipeline Purchases           |                           |                       |                      |                       |
| Arkla Inc                               | 288                       | .21                   | 0                    | .00                   |
| Ringwood Gathering Co                   | 2,170                     | 1.61                  | 25,466               | 1.11                  |
| Transwestern Pipeline Co                | 78                        | .06                   | 0                    | .00                   |
| Subtotal                                | 2,536                     | 1.89                  | 25,466               | 1.11                  |
| Company Total Gas Supply                | 134,527                   | 100.00                | 2,292,829            | 100.00                |
| Williston Basin Interstate Pipeline     |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Company Owned                           | 1,960                     | 7.24                  | 278,675              | 70.77                 |
| Producer Contracts                      | 25,104                    | 92.76                 | 115,123              | 29.23                 |
| Company Total Gas Supply                | 27,064                    | 100.00                | 393,798              | 100.00                |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|------------------------------------|---------------------------|-----------------------|----------------------|-----------------------|
|                                    | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Minor Gas Supply Companies</b>  |                           |                       |                      |                       |
| Alabama-Tennessee Natural Gas Co   |                           |                       |                      |                       |
| Gas Reserves                       |                           |                       |                      |                       |
| Producer Contracts                 | 938                       | 13.24                 | 0                    | 0.00                  |
| Domestic Gas Supply                |                           |                       |                      |                       |
| Interstate Pipeline Purchases      |                           |                       |                      |                       |
| Tennessee Gas Pipeline Div Tenneco | 6,148                     | 86.76                 | 42,753               | 100.00                |
| Company Total Gas Supply           | 7,086                     | 100.00                | 42,753               | 100.00                |
| Arkansas Oklahoma Gas Corp         |                           |                       |                      |                       |
| Gas Reserves                       |                           |                       |                      |                       |
| Producer Contracts                 | 2,289                     | 100.00                | 33,616               | 100.00                |
| Company Total Gas Supply           | 2,289                     | 100.00                | 33,616               | 100.00                |
| Bayou Interstate Pipeline System   |                           |                       |                      |                       |
| Gas Reserves                       |                           |                       |                      |                       |
| Producer Contracts                 | 435                       | 100.00                | 217                  | 100.00                |
| Company Total Gas Supply           | 435                       | 100.00                | 217                  | 100.00                |
| Caprock Pipeline Co                |                           |                       |                      |                       |
| Gas Reserves                       |                           |                       |                      |                       |
| Producer Contracts                 | 0                         | .00                   | 33,407               | 100.00                |
| Company Total Gas Supply           | 0                         | 100.00                | 33,407               | 100.00                |
| Carnegie Natural Gas Co            |                           |                       |                      |                       |
| Gas Reserves                       |                           |                       |                      |                       |
| Company Owned                      |                           |                       |                      |                       |
| Producer Contracts                 | 1,631                     | 8.43                  | 26,840               | 5.34                  |
| Subtotal                           | 2,748                     | 14.20                 | 36,218               | 7.21                  |
| Domestic Gas Supply                |                           |                       |                      |                       |
| Interstate Pipeline Purchases      |                           |                       |                      |                       |
| Texas Eastern Transmission Corp    | 8,300                     | 42.89                 | 439,520              | 87.45                 |
| Intrastate Pipeline Purchases      |                           |                       |                      |                       |
| Apollo Petroleum Corporation*      | 568                       | 2.93                  | 0                    | .00                   |
| Unidentified*                      | 6,106                     | 31.55                 | 0                    | .00                   |
| Subtotal                           | 14,974                    | 77.37                 | 439,520              | 87.45                 |
| Company Total Gas Supply           | 19,353                    | 100.00                | 502,578              | 100.00                |
| East Tennessee Natural Gas Co      |                           |                       |                      |                       |
| Gas Reserves                       |                           |                       |                      |                       |
| Producer Contracts                 | 9,789                     | 45.93                 | 34,066               | 6.19                  |
| Domestic Gas Supply                |                           |                       |                      |                       |
| Interstate Pipeline Purchases      |                           |                       |                      |                       |
| Tennessee Gas Pipeline Div Tenneco | 9,345                     | 43.85                 | 502,006              | 91.25                 |
| Intrastate Pipeline Purchases      |                           |                       |                      |                       |
| Intrastate Energy Co*              | 2,179                     | 10.22                 | 14,091               | 2.56                  |
| Subtotal                           | 11,524                    | 54.07                 | 516,097              | 93.81                 |
| Company Total Gas Supply           | 21,313                    | 100.00                | 550,163              | 100.00                |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source     | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|--|---------------------------|-----------------------|----------------------|-----------------------|
|  | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Minor Gas Supply Companies</b>      |                           |                       |                      |                       |
| Eastern Shore Natural Gas Co           |                           |                       |                      |                       |
| Gas Reserves                           |                           |                       |                      |                       |
| Producer Contracts                     | 7,011                     | 86.60                 | 0                    | 0.00                  |
| Domestic Gas Supply                    |                           |                       |                      |                       |
| Interstate Pipeline Purchases          |                           |                       |                      |                       |
| Columbia Gas Transmission Corp         | 292                       | 3.61                  | 1,975                | 100.00                |
| Transcontinental Gas Pipe Line Corp    | 793                       | 9.79                  | 0                    | .00                   |
| Subtotal                               | 1,085                     | 13.40                 | 1,975                | 100.00                |
| Company Total Gas Supply               | 8,096                     | 100.00                | 1,975                | 100.00                |
| Equitrans Inc <sup>2</sup>             |                           |                       |                      |                       |
| Gas Reserves                           |                           |                       |                      |                       |
| Company Owned                          | 2,806                     | 5.45                  | 83,243               | 9.57                  |
| Domestic Gas Supply                    |                           |                       |                      |                       |
| Interstate Pipeline Purchases          |                           |                       |                      |                       |
| Kentucky West Va Gas Co                | 7,284                     | 14.14                 | 105,944              | 12.18                 |
| Tennessee Gas <sup>a</sup>             | 724                       | 1.41                  | 90,781               | 10.44                 |
| Texas Eastern Transmission Corp        | 15,243                    | 29.60                 | 340,576              | 39.17                 |
| Intrastate Pipeline Purchases          |                           |                       |                      |                       |
| J.H. Hager <sup>a</sup>                | 9,828                     | 19.08                 | 83,413               | 9.59                  |
| Natural Gas Clearinghouse <sup>a</sup> | 13,893                    | 26.98                 | 150,865              | 17.35                 |
| Pemco Gas Company <sup>a</sup>         | 1,723                     | 3.35                  | 14,720               | 1.69                  |
| Subtotal                               | 48,695                    | 94.55                 | 786,299              | 90.43                 |
| Company Total Gas Supply               | 51,501                    | 100.00                | 869,542              | 100.00                |
| Gas Transport Inc                      |                           |                       |                      |                       |
| Gas Reserves                           |                           |                       |                      |                       |
| Producer Contracts                     | 1,018                     | 56.84                 | 10,178               | 41.92                 |
| Domestic Gas Supply                    |                           |                       |                      |                       |
| Interstate Pipeline Purchases          |                           |                       |                      |                       |
| Columbia Gas Transmission Corp         | 773                       | 43.16                 | 14,099               | 58.08                 |
| Company Total Gas Supply               | 1,791                     | 100.00                | 24,277               | 100.00                |
| Inland Gas Co Inc                      |                           |                       |                      |                       |
| Gas Reserves                           |                           |                       |                      |                       |
| Company Owned                          | 1,816                     | 62.34                 | 28,295               | 88.32                 |
| Producer Contracts                     | 179                       | 6.14                  | 0                    | .00                   |
| Subtotal                               | 1,995                     | 68.49                 | 28,295               | 88.32                 |
| Domestic Gas Supply                    |                           |                       |                      |                       |
| Interstate Pipeline Purchases          |                           |                       |                      |                       |
| Tennessee Gas Pipeline Div Tenneco     | 918                       | 31.51                 | 3,743                | 11.68                 |
| Company Total Gas Supply               | 2,913                     | 100.00                | 32,038               | 100.00                |
| International Paper Co                 |                           |                       |                      |                       |
| Gas Reserves                           |                           |                       |                      |                       |
| Producer Contracts                     | 2,287                     | 96.05                 | 14,647               | 100.00                |
| Domestic Gas Supply                    |                           |                       |                      |                       |
| Interstate Pipeline Purchases          |                           |                       |                      |                       |
| Louisiana-Nevada Transit Co            | 94                        | 3.95                  | 0                    | .00                   |
| Company Total Gas Supply               | 2,381                     | 100.00                | 14,647               | 100.00                |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source    | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|---------------------------------------|---------------------------|-----------------------|----------------------|-----------------------|
|                                       | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Minor Gas Supply Companies</b>     |                           |                       |                      |                       |
| Kentucky West Va Gas Co               |                           |                       |                      |                       |
| Gas Reserves                          |                           |                       |                      |                       |
| Producer Contracts                    | 21,813                    | 100.00                | 325,542              | 100.00                |
| Company Total Gas Supply              | 21,813                    | 100.00                | 325,542              | 100.00                |
| Lone Star Gas Co Div Enserch Corp     |                           |                       |                      |                       |
| Gas Reserves                          |                           |                       |                      |                       |
| Company Owned                         | 0                         | .00                   | 6,277                | 6.55                  |
| Producer Contracts                    | 14,228                    | 100.00                | 89,586               | 93.45                 |
| Company Total Gas Supply              | 14,228                    | 100.00                | 95,863               | 100.00                |
| Louisiana-Nevada Transit Co           |                           |                       |                      |                       |
| Gas Reserves                          |                           |                       |                      |                       |
| Producer Contracts                    | 1,056                     | 100.00                | 48,424               | 100.00                |
| Company Total Gas Supply              | 1,056                     | 100.00                | 48,424               | 100.00                |
| Michigan Gas Storage Co               |                           |                       |                      |                       |
| Gas Reserves                          |                           |                       |                      |                       |
| Company Owned                         | 0                         | .00                   | 48                   | .31                   |
| Domestic Gas Supply                   |                           |                       |                      |                       |
| Interstate Pipeline Purchases         |                           |                       |                      |                       |
| Panhandle Eastern Pipe Line Co        | 400                       | 2.44                  | 15,200               | 99.69                 |
| Intrastate Pipeline Purchases         |                           |                       |                      |                       |
| CNG <sup>a</sup>                      | 4,734                     | 28.87                 | 0                    | .00                   |
| PTC <sup>a</sup>                      | 9,211                     | 56.18                 | 0                    | .00                   |
| Seagull Resources <sup>a</sup>        | 2,051                     | 12.51                 | 0                    | .00                   |
| Subtotal                              | 16,396                    | 100.00                | 15,200               | 99.69                 |
| Company Total Gas Supply              | 16,396                    | 100.00                | 15,248               | 100.00                |
| Mid Louisiana Gas Co                  |                           |                       |                      |                       |
| Gas Reserves                          |                           |                       |                      |                       |
| Company Owned                         | 7,817                     | 41.59                 | 60,254               | 66.40                 |
| Producer Contracts                    | 10,979                    | 58.41                 | 30,485               | 33.60                 |
| Company Total Gas Supply              | 18,796                    | 100.00                | 90,739               | 100.00                |
| Midwestern Gas Transmission Co        |                           |                       |                      |                       |
| Domestic Gas Supply                   |                           |                       |                      |                       |
| Interstate Pipeline Purchases         |                           |                       |                      |                       |
| Tennessee Gas Pipeline Div Tenneco    | 28,659                    | 32.43                 | 2,422,751            | 99.94                 |
| Import Gas Supply                     |                           |                       |                      |                       |
| Pipeline Purchases                    |                           |                       |                      |                       |
| Transcanada Pipeline <sup>a</sup>     | 7,115                     | 8.05                  | 0                    | .00                   |
| Other Gas Supply                      |                           |                       |                      |                       |
| Earth Exploration Co <sup>a</sup>     | 24                        | .03                   | 0                    | .00                   |
| Equitable Life Assur Soc <sup>a</sup> | 265                       | .30                   | 1,345                | .06                   |
| Tenngasco Corporation <sup>a</sup>    | 52,297                    | 59.19                 | 0                    | .00                   |
| Company Total Gas Supply              | 88,360                    | 100.00                | 2,424,096            | 100.00                |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source     | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|--|---------------------------|-----------------------|----------------------|-----------------------|
|  | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Minor Gas Supply Companies</b>      |                           |                       |                      |                       |
| MIGC Inc                               |                           |                       |                      |                       |
| Gas Reserves                           |                           |                       |                      |                       |
| Producer Contracts                     | 3,012                     | 100.00                | 29,033               | 100.00                |
| Company Total Gas Supply               | 3,012                     | 100.00                | 29,033               | 100.00                |
| Mississippi River Transmission Corp    |                           |                       |                      |                       |
| Gas Reserves                           |                           |                       |                      |                       |
| Company Owned                          | 0                         | .00                   | 53,336               | 5.89                  |
| Producer Contracts                     | 143,120                   | 97.09                 | 817,769              | 90.27                 |
| Subtotal                               | 143,120                   | 97.09                 | 871,105              | 96.15                 |
| Domestic Gas Supply                    |                           |                       |                      |                       |
| Interstate Pipeline Purchases          |                           |                       |                      |                       |
| Natural Gas Pipeline Co of America     | 43                        | .03                   | 1,342                | .15                   |
| United Gas Pipe Line Co                | 1,481                     | 1.00                  | 33,500               | 3.70                  |
| Intrastate Pipeline Purchases          |                           |                       |                      |                       |
| East Texas Industrial <sup>a</sup>     | 551                       | .37                   | 0                    | .00                   |
| Tejas Power Co <sup>a</sup>            | 2,219                     | 1.51                  | 0                    | .00                   |
| Subtotal                               | 4,294                     | 2.91                  | 34,842               | 3.85                  |
| Company Total Gas Supply               | 147,414                   | 100.00                | 905,947              | 100.00                |
| National Fuel Gas Supply Corp          |                           |                       |                      |                       |
| Gas Reserves                           |                           |                       |                      |                       |
| Company Owned                          | 4,543                     | 10.14                 | 70,374               | 3.77                  |
| Producer Contracts                     | 11,292                    | 25.20                 | 204,394              | 10.95                 |
| Subtotal                               | 15,835                    | 35.34                 | 274,768              | 14.73                 |
| Domestic Gas Supply                    |                           |                       |                      |                       |
| Interstate Pipeline Purchases          |                           |                       |                      |                       |
| CNG Transmission Corp <sup>a</sup>     | 2,698                     | 6.02                  | 39,580               | 2.12                  |
| Columbia Gas Transmission Corp         | 649                       | 1.45                  | 8,036                | .43                   |
| Tennessee Firm Transport <sup>a</sup>  | 11,381                    | 25.40                 | 33,962               | 1.82                  |
| Tennessee Gas Pipeline Div Tenneco     | 5,639                     | 12.59                 | 1,265,592            | 67.83                 |
| Texas Eastern Transmission Corp        | 7,281                     | 16.25                 | 243,901              | 13.07                 |
| Transcontinental Gas Pipe Line Corp    | 1,319                     | 2.94                  | 0                    | .00                   |
| Subtotal                               | 28,967                    | 64.66                 | 1,591,071            | 85.27                 |
| Company Total Gas Supply               | 44,802                    | 100.00                | 1,865,839            | 100.00                |
| North Penn Gas Co                      |                           |                       |                      |                       |
| Gas Reserves                           |                           |                       |                      |                       |
| Company Owned                          | 0                         | .00                   | 8,971                | 13.39                 |
| Domestic Gas Supply                    |                           |                       |                      |                       |
| Interstate Pipeline Purchases          |                           |                       |                      |                       |
| CNG Transmission Corp <sup>a</sup>     | 316                       | 6.38                  | 6,004                | 8.96                  |
| Tennessee Gas Pipeline Div Tenneco     | 3,046                     | 61.46                 | 51,073               | 76.21                 |
| Transcontinental Gas Pipe Line Corp    | 0                         | .00                   | 971                  | 1.45                  |
| Intrastate Pipeline Purchases          |                           |                       |                      |                       |
| Brooklyn Inter Nat Gas Co <sup>a</sup> | 180                       | 3.63                  | 0                    | .00                   |
| Endevco Pipeline Co <sup>a</sup>       | 129                       | 2.60                  | 0                    | .00                   |
| Natural Gas Clearinghouse <sup>a</sup> | 193                       | 3.83                  | 0                    | .00                   |
| Tenngasco <sup>a</sup>                 | 1,040                     | 20.98                 | 0                    | .00                   |
| Transco Energy Marketing <sup>a</sup>  | 52                        | 1.05                  | 0                    | .00                   |
| Subtotal                               | 4,956                     | 100.00                | 58,048               | 86.61                 |
| Company Total Gas Supply               | 4,956                     | 100.00                | 67,019               | 100.00                |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source      | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|---|---------------------------|-----------------------|----------------------|-----------------------|
|   | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Minor Gas Supply Companies</b>       |                           |                       |                      |                       |
| Orange & Rockland Utilities Inc         |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Company Owned                           | 0                         | 0.00                  | 7,870                | 1.75                  |
| Domestic Gas Supply                     |                           |                       |                      |                       |
| Interstate Pipeline Purchases           |                           |                       |                      |                       |
| Algonguin Gas Transmission <sup>a</sup> | 6,817                     | 13.84                 | 0                    | .00                   |
| Columbia Gas Development <sup>a</sup>   | 588                       | 1.19                  | 84,794               | 18.82                 |
| Columbia Gas Transmission Corp          | 1,948                     | 3.96                  | 141,143              | 31.33                 |
| Enron Corp <sup>a</sup>                 | 730                       | 1.48                  | 54,269               | 12.05                 |
| Tennessee Gas Pipeline Div Tenneco      | 8,340                     | 16.94                 | 162,415              | 36.05                 |
| Texas Eastern Transmission Corp         | 1,488                     | 3.02                  | 0                    | .00                   |
| Intrastate Pipeline Purchases           |                           |                       |                      |                       |
| Brooklyn Inter Nat Gas Co <sup>a</sup>  | 321                       | .65                   | 0                    | .00                   |
| Catamount Natural Gas Inc <sup>a</sup>  | 62                        | .13                   | 0                    | .00                   |
| Citizens Energy Corp <sup>a</sup>       | 754                       | 1.53                  | 0                    | .00                   |
| Citizens Gas Supply Corp <sup>a</sup>   | 3,121                     | 6.34                  | 0                    | .00                   |
| Coastal Gas Marketing <sup>a</sup>      | 326                       | .66                   | 0                    | .00                   |
| Columbia Gas Development <sup>a</sup>   | 18                        | .04                   | 0                    | .00                   |
| Columbia Production <sup>a</sup>        | 268                       | .54                   | 0                    | .00                   |
| Equitable Resources Market <sup>a</sup> | 311                       | .63                   | 0                    | .00                   |
| Jaywell Energy Corp <sup>a</sup>        | 78                        | .16                   | 0                    | .00                   |
| Natural Gas Clearinghouse <sup>a</sup>  | 8,369                     | 17.00                 | 0                    | .00                   |
| Peoples Service <sup>a</sup>            | 295                       | .60                   | 0                    | .00                   |
| Polaris Pipeline Co <sup>a</sup>        | 99                        | .20                   | 0                    | .00                   |
| Riley Natural Gas Company <sup>a</sup>  | 103                       | .21                   | 0                    | .00                   |
| Tenngasco <sup>a</sup>                  | 7,637                     | 15.51                 | 0                    | .00                   |
| Texaco Gas Marketing Inc <sup>a</sup>   | 2,126                     | 4.32                  | 0                    | .00                   |
| Transco Energy Marketing <sup>a</sup>   | 4,119                     | 8.37                  | 0                    | .00                   |
| Unidentified <sup>a</sup>               | 866                       | 1.76                  | 0                    | .00                   |
| Union Pacific <sup>a</sup>              | 455                       | .92                   | 0                    | .00                   |
| Subtotal                                | 49,239                    | 100.00                | 442,621              | 98.25                 |
| Company Total Gas Supply                | 49,239                    | 100.00                | 450,491              | 100.00                |
| Pacific Gas Transmission Co             |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Producer Contracts                      | 2,061                     | .53                   | 23,834               | .42                   |
| Import Gas Supply                       |                           |                       |                      |                       |
| Pipeline Purchases                      |                           |                       |                      |                       |
| Alberta & Southern Gas Co <sup>a</sup>  | 383,260                   | 99.47                 | 5,700,123            | 99.58                 |
| Company Total Gas Supply                | 385,321                   | 100.00                | 5,723,957            | 100.00                |
| Pacific Interstate Offshore Co          |                           |                       |                      |                       |
| Gas Reserves                            |                           |                       |                      |                       |
| Producer Contracts                      | 12,068                    | 100.00                | 76,642               | 100.00                |
| Company Total Gas Supply                | 12,068                    | 100.00                | 76,642               | 100.00                |
| Pacific Interstate Transmission Co      |                           |                       |                      |                       |
| Domestic Gas Supply                     |                           |                       |                      |                       |
| Interstate Pipeline Purchases           |                           |                       |                      |                       |
| Northwest Alaskan Pipeline Co           | 89,721                    | 100.00                | 1,138,800            | 100.00                |
| Company Total Gas Supply                | 89,721                    | 100.00                | 1,138,800            | 100.00                |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source    | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|---------------------------------------|---------------------------|-----------------------|----------------------|-----------------------|
|                                       | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Minor Gas Supply Companies</b>     |                           |                       |                      |                       |
| Pacific Offshore Pipeline Co          |                           |                       |                      |                       |
| Gas Reserves                          |                           |                       |                      |                       |
| Producer Contracts                    | 12,441                    | 100.00                | 153,300              | 100.00                |
| Company Total Gas Supply              | 12,441                    | 100.00                | 153,300              | 100.00                |
| Pennsylvania & Southern Gas Co        |                           |                       |                      |                       |
| Gas Reserves                          |                           |                       |                      |                       |
| Company Owned                         | 0                         | .00                   | 330                  | .90                   |
| Producer Contracts                    | 0                         | .00                   | 247                  | .68                   |
| Subtotal                              | 0                         | .00                   | 577                  | 1.58                  |
| Domestic Gas Supply                   |                           |                       |                      |                       |
| Interstate Pipeline Purchases         |                           |                       |                      |                       |
| Eastern Shore Natural Gas Co          | 423                       | 9.50                  | 580                  | 1.59                  |
| Tennessee Gas Pipeline Div Tenneco    | 1,720                     | 38.83                 | 31,537               | 86.43                 |
| Transcontinental Gas Pipe Line Corp   | 2,309                     | 51.86                 | 3,796                | 10.40                 |
| Subtotal                              | 4,452                     | 100.00                | 35,913               | 98.42                 |
| Company Total Gas Supply              | 4,452                     | 100.00                | 36,490               | 100.00                |
| Questar Pipeline Company <sup>3</sup> |                           |                       |                      |                       |
| Gas Reserves                          |                           |                       |                      |                       |
| Company Owned                         | 0                         | .00                   | 19,624               | 4.36                  |
| Producer Contracts                    | 44,471                    | 80.12                 | 378,374              | 84.03                 |
| Subtotal                              | 44,471                    | 80.12                 | 397,998              | 88.39                 |
| Domestic Gas Supply                   |                           |                       |                      |                       |
| Interstate Pipeline Purchases         |                           |                       |                      |                       |
| Colorado Interstate Gas Co            | 8                         | .01                   | 1,498                | .33                   |
| Intrastate Pipeline Purchases         |                           |                       |                      |                       |
| Amoco Production <sup>a</sup>         | 0                         | .00                   | 11,390               | 2.53                  |
| Exxon Corp. <sup>a</sup>              | 1,860                     | 3.35                  | 14,888               | 3.31                  |
| Gary Energy Corporation <sup>a</sup>  | 2,012                     | 3.62                  | 5,506                | 1.22                  |
| Koch Hydrocarbon <sup>a</sup>         | 755                       | 1.36                  | 6,430                | 1.43                  |
| Mesa Pipeline Co <sup>a</sup>         | 2,680                     | 4.83                  | 0                    | .00                   |
| Shell Oil <sup>a</sup>                | 3,699                     | 6.66                  | 11,659               | 2.59                  |
| Uinta Pipeline Co <sup>a</sup>        | 19                        | .03                   | 903                  | .20                   |
| Subtotal                              | 11,033                    | 19.88                 | 52,274               | 11.61                 |
| Company Total Gas Supply              | 55,504                    | 100.00                | 450,272              | 100.00                |
| Ringwood Gathering Co                 |                           |                       |                      |                       |
| Gas Reserves                          |                           |                       |                      |                       |
| Producer Contracts                    | 8,332                     | 100.00                | 40,361               | 100.00                |
| Company Total Gas Supply              | 8,332                     | 100.00                | 40,361               | 100.00                |
| Texas Gas Pipeline Corp               |                           |                       |                      |                       |
| Gas Reserves                          |                           |                       |                      |                       |
| Producer Contracts                    | 3,739                     | 100.00                | 17,588               | 100.00                |
| Company Total Gas Supply              | 3,739                     | 100.00                | 17,588               | 100.00                |
| Washington Gas Light Co               |                           |                       |                      |                       |
| Gas Reserves                          |                           |                       |                      |                       |
| Company Owned                         | 0                         | .00                   | 3,080                | .12                   |

Note: Footnote appears at the end of the table.

**Table 12. Total Gas Supplies of Interstate Pipeline Companies with Owned and Contracted Gas Reserves (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source   | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|--------------------------------------|---------------------------|-----------------------|----------------------|-----------------------|
|                                      | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Minor Gas Supply Companies</b>    |                           |                       |                      |                       |
| <b>Washington Gas Light Co</b>       |                           |                       |                      |                       |
| <b>Gas Reserves</b>                  |                           |                       |                      |                       |
| Producer Contracts                   | 83,732                    | 59.70                 | 0                    | 0.00                  |
| Subtotal                             | 83,732                    | 59.70                 | 3,080                | .12                   |
| <b>Domestic Gas Supply</b>           |                           |                       |                      |                       |
| <b>Interstate Pipeline Purchases</b> |                           |                       |                      |                       |
| CNG Transmission Corp <sup>1</sup>   | 4,786                     | 3.41                  | 684,375              | 26.46                 |
| Columbia Gas Transmission Corp       | 48,926                    | 34.88                 | 1,728,498            | 66.83                 |
| Transcontinental Gas Pipe Line Corp  | 2,812                     | 2.00                  | 170,455              | 6.59                  |
| Subtotal                             | 56,524                    | 40.30                 | 2,583,328            | 99.88                 |
| Company Total Gas Supply             | 140,256                   | 100.00                | 2,586,408            | 100.00                |
| <b>Western Gas Interstate Co</b>     |                           |                       |                      |                       |
| <b>Gas Reserves</b>                  |                           |                       |                      |                       |
| Company Owned                        | 187                       | 5.34                  | 891                  | 4.18                  |
| Producer Contracts                   | 1,277                     | 36.44                 | 8,211                | 38.50                 |
| Subtotal                             | 1,464                     | 41.78                 | 9,102                | 42.68                 |
| <b>Domestic Gas Supply</b>           |                           |                       |                      |                       |
| <b>Interstate Pipeline Purchases</b> |                           |                       |                      |                       |
| El Paso Natural Gas Co               | 138                       | 3.94                  | 3,100                | 14.54                 |
| <b>Intrastate Pipeline Purchases</b> |                           |                       |                      |                       |
| Coastal Gas Marketing <sup>2</sup>   | 262                       | 7.48                  | 0                    | .00                   |
| Crouch Petroleum <sup>3</sup>        | 147                       | 4.20                  | 9,125                | 42.79                 |
| Enron Gas Marketing <sup>4</sup>     | 652                       | 18.31                 | 0                    | .00                   |
| Maxus Energy <sup>4</sup>            | 52                        | 1.48                  | 0                    | .00                   |
| Meridian <sup>4</sup>                | 219                       | 6.25                  | 0                    | .00                   |
| Phillips 66 Natural Gas <sup>4</sup> | 193                       | 5.51                  | 0                    | .00                   |
| PSI, Inc <sup>4</sup>                | 377                       | 10.76                 | 0                    | .00                   |
| Subtotal                             | 2,040                     | 58.22                 | 12,225               | 57.32                 |
| Company Total Gas Supply             | 3,504                     | 100.00                | 21,327               | 100.00                |
| <b>Zenith Natural Gas Co</b>         |                           |                       |                      |                       |
| <b>Gas Reserves</b>                  |                           |                       |                      |                       |
| Producer Contracts                   | 1,495                     | 100.00                | 6,475                | 100.00                |
| Company Total Gas Supply             | 1,495                     | 100.00                | 6,475                | 100.00                |

<sup>1</sup> Formerly Consolidated Gas Transmission Co.

<sup>2</sup> Formerly Equitable Gas Company

<sup>3</sup> Formerly Mountain Fuel Resources Inc.

<sup>4</sup> Nonjurisdictional companies not required to file Form 15 reports.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 13. Total Gas Supplies of Interstate Pipeline Companies That Purchase Their Total Gas Supply from Other Pipeline Companies**  
(Million Cubic Feet)

| Company Name and Gas Supply Source        | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|---|---------------------------|-----------------------|----------------------|-----------------------|
|   | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| <b>Algonquin Gas Transmission Co</b>      |                           |                       |                      |                       |
| Gas Reserves                              |                           |                       |                      |                       |
| Producer Contracts                        | 72                        | 0.05                  | 0                    | 0.00                  |
| Domestic Gas Supply                       |                           |                       |                      |                       |
| Interstate Pipeline Purchases             |                           |                       |                      |                       |
| CNG Transmission Corp*                    | 5,905                     | 4.29                  | 65,513               | 3.87                  |
| National Fuel Gas Supply Corp             | 4,690                     | 3.41                  | 19,397               | 1.15                  |
| Texas Eastern Transmission Corp           | 127,015                   | 92.25                 | 1,608,427            | 94.99                 |
| Subtotal                                  | 137,610                   | 99.95                 | 1,693,337            | 100.00                |
| Company Total Gas Supply                  | 137,682                   | 100.00                | 1,693,337            | 100.00                |
| <b>Associated Natural Gas Co</b>          |                           |                       |                      |                       |
| Domestic Gas Supply                       |                           |                       |                      |                       |
| Interstate Pipeline Purchases             |                           |                       |                      |                       |
| Texas Eastern Transmission Corp           | 566                       | 11.57                 | 16,480               | 92.43                 |
| Texas Gas Transmission Corp               | 484                       | 9.89                  | 1,350                | 7.57                  |
| Subtotal                                  | 1,050                     | 21.46                 | 17,830               | 100.00                |
| Other Gas Supply                          |                           |                       |                      |                       |
| Seeco Inc*                                | 3,836                     | 78.40                 | 0                    | .00                   |
| Texas Eastern Gas Services*               | 7                         | .14                   | 0                    | .00                   |
| Company Total Gas Supply                  | 4,893                     | 100.00                | 17,830               | 100.00                |
| <b>Bluefield Gas Co</b>                   |                           |                       |                      |                       |
| Domestic Gas Supply                       |                           |                       |                      |                       |
| Interstate Pipeline Purchases             |                           |                       |                      |                       |
| Columbia Gas Transmission Corp            | 364                       | 100.00                | 5,280                | 100.00                |
| Company Total Gas Supply                  | 364                       | 100.00                | 5,280                | 100.00                |
| <b>Border Gas Inc</b>                     |                           |                       |                      |                       |
| Import Gas Supply                         |                           |                       |                      |                       |
| Pipeline Purchases                        |                           |                       |                      |                       |
| Petroleos Mexicanos*                      | 0                         | .00                   | 287,547              | 100.00                |
| Company Total Gas Supply                  | 0                         | 100.00                | 287,547              | 100.00                |
| <b>Boundary Gas Inc</b>                   |                           |                       |                      |                       |
| Import Gas Supply                         |                           |                       |                      |                       |
| Pipeline Purchases                        |                           |                       |                      |                       |
| Transcanada Pipeline*                     | 33,287                    | 100.00                | 217,840              | 100.00                |
| Company Total Gas Supply                  | 33,287                    | 100.00                | 217,840              | 100.00                |
| <b>Glacier Gas Company</b>                |                           |                       |                      |                       |
| Gas Reserves                              |                           |                       |                      |                       |
| Company Owned                             | 355                       | 100.00                | 2,529                | 100.00                |
| Company Total Gas Supply                  | 355                       | 100.00                | 2,529                | 100.00                |
| <b>Granite State Gas Transmission Inc</b> |                           |                       |                      |                       |
| Domestic Gas Supply                       |                           |                       |                      |                       |
| Interstate Pipeline Purchases             |                           |                       |                      |                       |
| Algonquin Gas Transmission Co             | 1,065                     | 2.66                  | 47,508               | 10.94                 |
| Boundary Gas Inc                          | 4,381                     | 10.93                 | 31,175               | 7.18                  |
| Tennessee Gas Pipeline Div Tenneco        | 9,519                     | 23.74                 | 272,746              | 62.80                 |
| Intrastate Pipeline Purchases             |                           |                       |                      |                       |
| Tenngasco*                                | 18,255                    | 45.53                 | 0                    | 0.00                  |

Note: Footnote appears at the end of the table.

**Table 13. Total Gas Supplies of Interstate Pipeline Companies That Purchase Their Total Gas Supply from Other Pipeline Companies (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source  | Produced and/or Purchased |                       | Remaining Gas Supply |                       |
|-------------------------------------|---------------------------|-----------------------|----------------------|-----------------------|
|                                     | Volume 1989               | Percent Company Total | Volume 1989          | Percent Company Total |
| Granite State Gas Transmission Inc  |                           |                       |                      |                       |
| Domestic Gas Supply                 |                           |                       |                      |                       |
| Subtotal                            | 33,220                    | 82.86                 | 351,420              | 80.92                 |
| Import Gas Supply                   |                           |                       |                      |                       |
| Pipeline Purchases                  |                           |                       |                      |                       |
| Shell Canada Limited*               | 6,872                     | 17.14                 | 82,875               | 19.08                 |
| Company Total Gas Supply            | 40,092                    | 100.00                | 434,304              | 100.00                |
| Great Lakes Gas Transmission Co     |                           |                       |                      |                       |
| Import Gas Supply                   |                           |                       |                      |                       |
| Pipeline Purchases                  |                           |                       |                      |                       |
| Transcanada Pipeline*               | 76,116                    | 100.00                | 118,014              | 100.00                |
| Company Total Gas Supply            | 76,116                    | 100.00                | 118,014              | 100.00                |
| Great Plains Natural Gas Co         |                           |                       |                      |                       |
| Domestic Gas Supply                 |                           |                       |                      |                       |
| Interstate Pipeline Purchases       |                           |                       |                      |                       |
| Northern Natural Div InterNorth Inc | 0                         | .00                   | 6,593                | 43.84                 |
| Company Total Gas Supply            | 0                         | 100.00                | 15,040               | 100.00                |
| Indiana Utilities Corp              |                           |                       |                      |                       |
| Domestic Gas Supply                 |                           |                       |                      |                       |
| Interstate Pipeline Purchases       |                           |                       |                      |                       |
| Texas Gas Transmission Corp         | 393                       | 100.00                | 2,232                | 100.00                |
| Company Total Gas Supply            | 393                       | 100.00                | 2,232                | 100.00                |
| Inter-City Minnesota Pipelines Ltd  |                           |                       |                      |                       |
| Import Gas Supply                   |                           |                       |                      |                       |
| Pipeline Purchases                  |                           |                       |                      |                       |
| ICG Transmission Ltd*               | 4,307                     | 100.00                | 48,399               | 100.00                |
| Company Total Gas Supply            | 4,307                     | 100.00                | 48,399               | 100.00                |
| Iowa-Illinois Gas & Electric Co     |                           |                       |                      |                       |
| Domestic Gas Supply                 |                           |                       |                      |                       |
| Interstate Pipeline Purchases       |                           |                       |                      |                       |
| Natural Gas Pipeline Co of America  | 44,454                    | 93.69                 | 11,110               | 100.00                |
| Northern Natural Div InterNorth Inc | 2,995                     | 6.31                  | 0                    | .00                   |
| Company Total Gas Supply            | 47,449                    | 100.00                | 11,110               | 100.00                |
| Northwest Alaskan Pipeline Co       |                           |                       |                      |                       |
| Import Gas Supply                   |                           |                       |                      |                       |
| Pipeline Purchases                  |                           |                       |                      |                       |
| Pan-Alberta Gas Ltd*                | 188,665                   | 100.00                | 5,459,200            | 100.00                |
| Company Total Gas Supply            | 188,665                   | 100.00                | 5,459,200            | 100.00                |
| Ohio River Pipeline Corp            |                           |                       |                      |                       |
| Domestic Gas Supply                 |                           |                       |                      |                       |
| Interstate Pipeline Purchases       |                           |                       |                      |                       |
| Texas Gas Transmission Corp         | 4,716                     | 100.00                | 15,376               | 100.00                |
| Company Total Gas Supply            | 4,716                     | 100.00                | 15,376               | 100.00                |

Note: Footnote appears at the end of the table.

**Table 13. Total Gas Supplies of Interstate Pipeline Companies That Purchase Their Total Gas Supply from Other Pipeline Companies (Continued)**  
(Million Cubic Feet)

| Company Name and Gas Supply Source | Produced and/or Purchased |                             | Remaining Gas Supply |                             |
|------------------------------------|---------------------------|-----------------------------|----------------------|-----------------------------|
|                                    | Volume<br>1989            | Percent<br>Company<br>Total | Volume<br>1989       | Percent<br>Company<br>Total |
| Raton Natural Gas Co               |                           |                             |                      |                             |
| Domestic Gas Supply                |                           |                             |                      |                             |
| Interstate Pipeline Purchases      |                           |                             |                      |                             |
| Colorado Interstate Gas Co         | 1,100                     | 100.00                      | 6,300                | 100.00                      |
| Company Total Gas Supply           | 1,100                     | 100.00                      | 6,300                | 100.00                      |
| South Georgia Natural Gas Co       |                           |                             |                      |                             |
| Domestic Gas Supply                |                           |                             |                      |                             |
| Interstate Pipeline Purchases      |                           |                             |                      |                             |
| Southern Natural Gas Co            | 4,050                     | 100.00                      | 31,462               | 100.00                      |
| Company Total Gas Supply           | 4,050                     | 100.00                      | 31,462               | 100.00                      |

<sup>a</sup> Nonjurisdictional companies not required to file Form 15 reports.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

# Deliverability

All interstate pipeline companies reporting on Form 15 project the annual volumes of natural gas expected to be deliverable from each domestic certificated source for each of the 5 years following the report year. These data are filed in Schedule II. Additionally, 34 companies are required by FERC to report in Schedule I a 20-year projection of the total annual volumes of gas, including pipeline purchases and imports, deliverable from total year-end gas supplies. These deliverability forecasts are the reporting company's best year-by-year estimates of its capability to deliver gas from present gas supplies (Table 16). Future load variations and future changes in gas supply are not considered. The market requirements are only those that have been authorized at the end of the report year. Both firm and interruptible authorized gas requirements, however, are included.

A comparison of the projected volumes deliverable over the past 5 years (Table 14) shows an aggregate

projection of 39.3 trillion cubic feet in 1985, decreasing by 51.7 percent to 19.0 trillion cubic feet in 1989. Annual deliveries for the 5-year period, 1990-1994, are projected to decline from 5.5 trillion cubic feet in 1990 to 2.4 trillion cubic feet in 1994. Aggregate deliveries projected for the 5-year period are shown by State in Figure 4.

Table 15 shows 1990-1994 deliveries projected from base year 1989 year-end reserves and the percent depletion in reserves by State and substate area. The depletion of total year-end 1989 reserves projected by year-end 1994 is 50.4 percent.

Twenty-year deliverability summaries for the 32 companies that filed Schedule I are shown in Table 16. A progressive decline in total projected deliveries is clear in the composite of these data (Table 17). Figure 5 shows reported production and a comparison of projected deliveries from year-end 1963 and 1989.

**Table 14. Comparisons of Composite Five-Year Deliverability Projections from Year-End Dedicated Domestic Gas Reserves**  
(Billion Cubic Feet)

| Year   | Annual Volumes Scheduled vs. Actual Volumes Purchased or Produced |                    |                    |                    |                    |
|--|---|--------------------|--------------------|--------------------|--------------------|
|  | 1985  | 1986               | 1987               | 1988               | 1989               |
| 1985   | 8,918 <sup>a</sup>  | --                 | --                 | --                 | --                 |
| 1986   | 10,795  | 7,578 <sup>a</sup> | --                 | --                 | --                 |
| 1987   | 9,076   | 9,193              | 6,655 <sup>a</sup> | --                 | --                 |
| 1988   | 7,721   | 7,751              | 7,634              | 5,804 <sup>a</sup> | --                 |
| 1989   | 6,455   | 6,492              | 6,671              | 6,719              | 4,843 <sup>a</sup> |
| 1990   | 5,268   | 5,456              | 5,557              | 5,457              | 5,544              |
| 1991   | --  | 4,724              | 4,687              | 4,400              | 4,373              |
| 1992   | --  | --                 | 3,929              | 3,653              | 3,644              |
| 1993   | --  | --                 | --                 | 2,990              | 3,000              |
| 1994   | --  | --                 | --                 | --                 | 2,446              |
| Five-Year Deliverability Projections <sup>b</sup>                      | 39,315  | 33,616             | 28,478             | 23,219             | 19,007             |
| Year-End Reserves  | 85,102  | 80,602             | 65,135             | 48,792             | 37,685             |
| Five-Year Deliverability Projections as a Percent of Year-End Reserves | 46.2  | 41.7               | 43.7               | 47.6               | 50.4               |

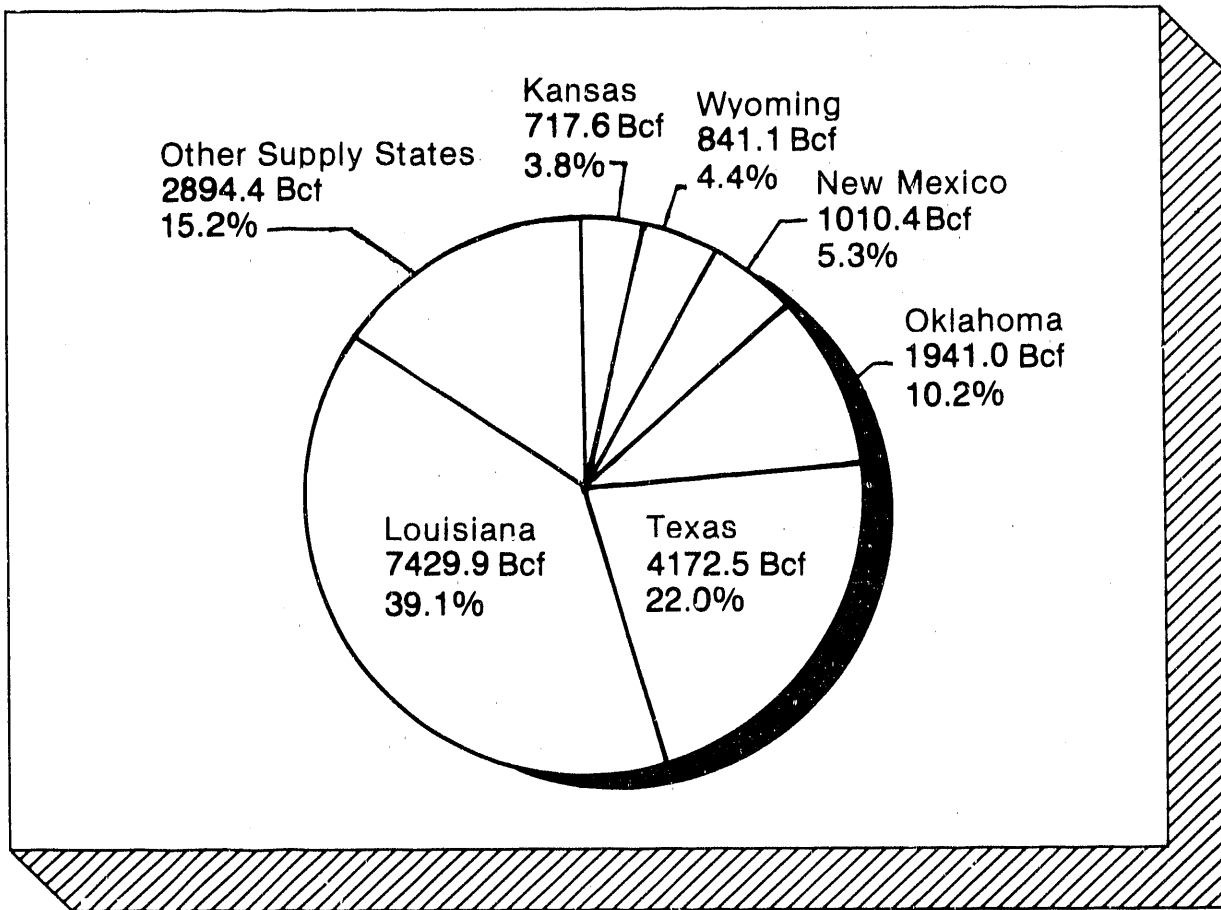
<sup>a</sup> Actual volume purchased and/or produced for the year indicated.

<sup>b</sup> Sum of annual volumes scheduled.

-- Not Applicable.

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply"

**Figure 4. Five-Year Projected Deliverability by State**  
(Billion Cubic Feet)



Source: Energy Information Administration, Form FERC-15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 15. Five-Year (1990-1994) Composite Deliverability Projections**  
(Billion Cubic Feet)

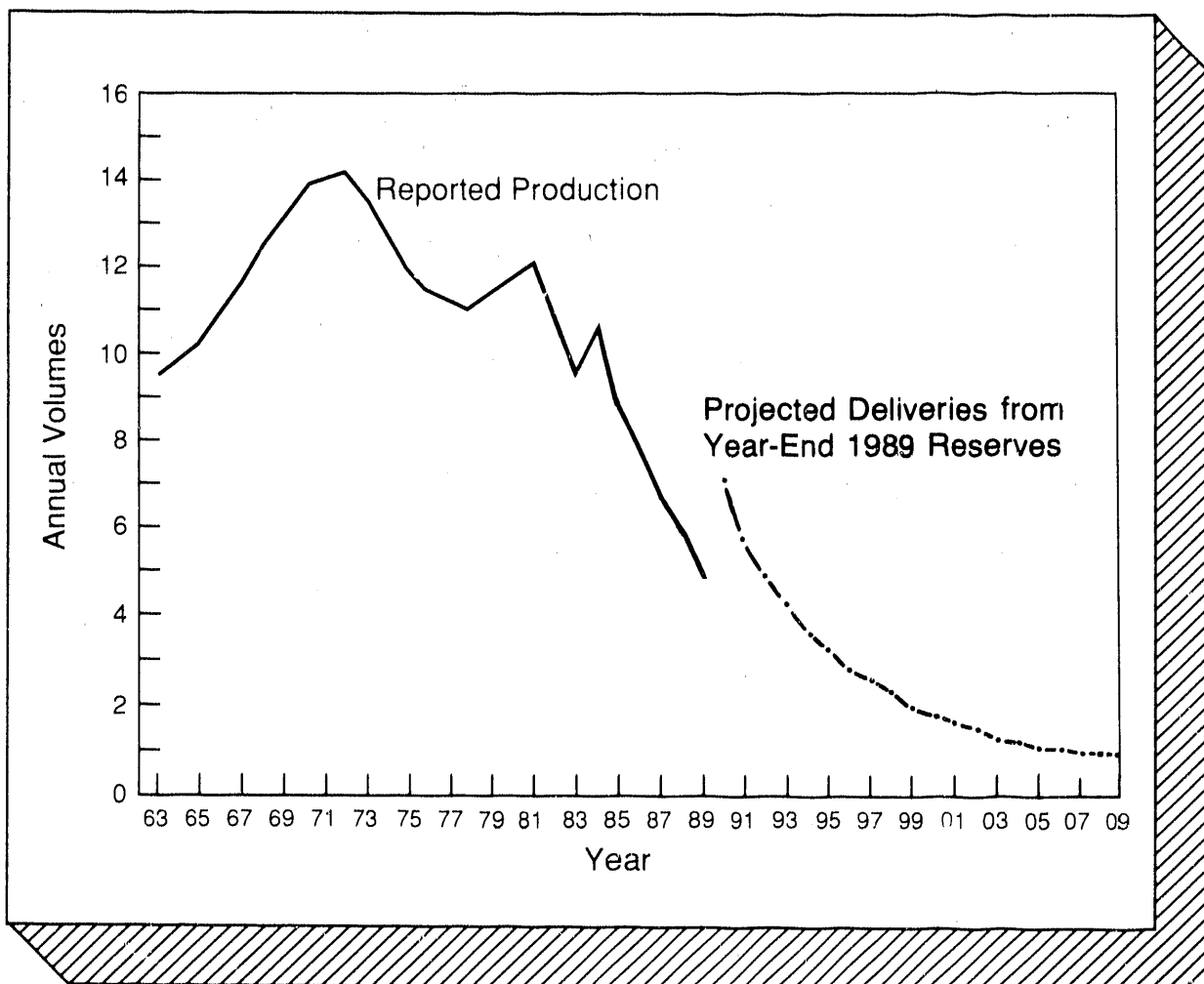
| State                     | Gas Re-serves<br>12-31-89 | Production<br>1989 | Annual Deliverability Projections |         |         |         |         | Total    | Remaining<br>Reserves<br>12-31-94 | Percent<br>Depletion<br>12-31-94 |
|---------------------------|---------------------------|--------------------|-----------------------------------|---------|---------|---------|---------|----------|-----------------------------------|----------------------------------|
|                           |                           |                    | 1990                              | 1991    | 1992    | 1993    | 1994    |          |                                   |                                  |
| Alabama                   | 217.4                     | 34.4               | 34.8                              | 27.9    | 27.7    | 25.1    | 21.6    | 137.2    | 80.2                              | 63.1                             |
| Arizona                   | .1                        | .0                 | .0                                | .0      | .0      | .0      | .0      | .0       | .1                                | .0                               |
| Arkansas                  | 1,856.3                   | 166.8              | 220.0                             | 206.4   | 178.6   | 167.3   | 162.2   | 934.3    | 922.0                             | 50.3                             |
| California                | 229.9                     | 24.5               | 25.5                              | 23.0    | 21.2    | 19.8    | 18.6    | 108.0    | 121.9                             | 47.0                             |
| Colorado                  | 488.6                     | 42.7               | 49.3                              | 42.9    | 37.0    | 33.4    | 25.6    | 188.3    | 300.3                             | 38.5                             |
| Florida                   | 9.3                       | 1.5                | 1.3                               | 1.1     | .9      | .7      | .6      | 4.6      | 4.7                               | 49.5                             |
| Illinois                  | 2.9                       | 1.1                | .3                                | .3      | .2      | .2      | .2      | 1.2      | 1.7                               | 41.4                             |
| Kansas                    | 3,090.4                   | 187.8              | 190.9                             | 141.0   | 130.9   | 127.3   | 127.4   | 717.6    | 2,372.8                           | 23.2                             |
| Kentucky                  | 597.4                     | 40.7               | 45.3                              | 42.6    | 40.8    | 39.3    | 38.0    | 206.1    | 391.3                             | 34.5                             |
| Louisiana                 |                           |                    |                                   |         |         |         |         |          |                                   |                                  |
| Northern Louisiana        | 1,099.6                   | 124.5              | 167.7                             | 152.9   | 126.7   | 105.2   | 88.9    | 641.4    | 458.2                             | 58.3                             |
| Southern Louisiana        | 9,185.8                   | 1,573.1            | 2,073.9                           | 1,704.8 | 1,344.5 | 978.4   | 687.0   | 6,788.5  | 2,397.3                           | 73.9                             |
| Onshore                   | 1,831.3                   | 242.2              | 381.9                             | 293.3   | 228.4   | 174.8   | 140.8   | 1,219.2  | 612.1                             | 66.6                             |
| Warranty <sup>a</sup>     | .0                        | 128.9              | .0                                | .0      | .0      | .0      | .0      | .0       | .0                                | .0                               |
| Onshore Total             | 1,831.3                   | 371.1              | 381.9                             | 293.3   | 228.4   | 174.8   | 140.8   | 1,219.2  | 612.1                             | 66.6                             |
| Offshore State            | 183.6                     | 52.9               | 49.0                              | 43.9    | 36.8    | 19.0    | 12.2    | 160.9    | 22.7                              | 87.6                             |
| Offshore Federal          | 7,170.9                   | 1,149.1            | 1,643.0                           | 1,367.6 | 1,079.3 | 784.6   | 534.0   | 5,408.4  | 1,762.5                           | 75.4                             |
| Offshore Total            | 7,354.5                   | 1,202.0            | 1,692.0                           | 1,411.5 | 1,116.1 | 803.6   | 546.2   | 5,569.3  | 1,785.2                           | 75.7                             |
| State Total               | 10,285.3                  | 1,697.6            | 2,241.5                           | 1,857.7 | 1,471.2 | 1,083.7 | 775.8   | 7,429.9  | 2,855.4                           | 72.2                             |
| Maryland                  | 41.8                      | 83.8               | .1                                | .0      | .0      | .0      | .0      | .2       | 41.6                              | .5                               |
| Massachusetts             | .0                        | 18.3               | .0                                | .0      | .0      | .0      | .0      | .0       | .0                                | .0                               |
| Michigan                  | 114.1                     | 16.0               | .0                                | .0      | .0      | .0      | .0      | .0       | 114.1                             | .0                               |
| Mississippi               | 320.1                     | 110.7              | 65.7                              | 44.6    | 32.9    | 24.5    | 17.7    | 185.4    | 134.7                             | 57.9                             |
| Missouri                  | 13.3                      | 9.6                | 13.3                              | .0      | .0      | .0      | .0      | 13.3     | .0                                | 100.0                            |
| Montana                   | 439.5                     | 22.1               | 24.2                              | 8.6     | 7.5     | 7.3     | 6.7     | 54.3     | 385.2                             | 12.4                             |
| Nebraska                  | 87.6                      | .3                 | 1.5                               | .1      | .1      | .0      | .0      | 1.7      | 85.9                              | 1.9                              |
| New Mexico                |                           |                    |                                   |         |         |         |         |          |                                   |                                  |
| San Juan Basin            | 2,086.6                   | 95.2               | 142.3                             | 137.8   | 129.9   | 123.5   | 118.1   | 651.5    | 1,435.1                           | 31.2                             |
| Permian Basin             | 811.9                     | 126.7              | 102.1                             | 76.9    | 70.6    | 58.6    | 50.7    | 358.8    | 453.1                             | 44.2                             |
| State Total               | 2,898.5                   | 221.9              | 244.4                             | 214.7   | 200.4   | 182.0   | 168.9   | 1,010.4  | 1,888.1                           | 34.9                             |
| New York                  | 143.1                     | 34.7               | 10.8                              | 9.6     | 8.8     | 8.1     | 7.5     | 44.7     | 98.4                              | 31.2                             |
| North Dakota              | 35.2                      | 12.5               | 9.9                               | 5.9     | 5.6     | 3.1     | 1.1     | 25.7     | 9.5                               | 73.0                             |
| Ohio                      | 235.7                     | 11.9               | 22.6                              | 19.8    | 17.7    | 16.0    | 14.6    | 90.7     | 145.0                             | 38.5                             |
| Oklahoma                  | 3,950.4                   | 450.6              | 504.3                             | 415.4   | 386.1   | 341.3   | 293.9   | 1,941.0  | 2,009.4                           | 49.1                             |
| Pennsylvania              | 778.8                     | 42.6               | 47.6                              | 43.1    | 39.4    | 36.6    | 34.2    | 200.9    | 577.9                             | 25.8                             |
| South Dakota              | 2.3                       | .5                 | .3                                | .3      | .3      | .3      | .2      | 1.2      | 1.1                               | 52.2                             |
| Tennessee                 | 14.1                      | 2.2                | 2.2                               | 1.9     | 1.6     | 1.4     | 1.2     | 8.3      | 5.8                               | 58.9                             |
| Texas                     |                           |                    |                                   |         |         |         |         |          |                                   |                                  |
| RR District No. 1 (North) | 1.5                       | .2                 | .3                                | .1      | .1      | .1      | .1      | .7       | .8                                | 46.7                             |
| RR District No. 1 (South) | 228.9                     | 33.8               | 55.0                              | 42.7    | 35.6    | 26.7    | 20.6    | 180.5    | 48.4                              | 78.9                             |
| RR District No. 2         | 394.6                     | 191.5              | 220.0                             | 38.7    | 32.9    | 27.8    | 22.8    | 342.2    | 52.4                              | 86.7                             |
| RR District No. 3         | 127.4                     | 24.5               | 32.4                              | 25.6    | 19.0    | 12.8    | 9.0     | 98.8     | 28.6                              | 77.6                             |
| RR District No. 4         | 653.6                     | 137.8              | 173.1                             | 124.8   | 85.4    | 56.0    | 41.8    | 481.1    | 172.5                             | 73.6                             |
| RR District No. 5         | 1.4                       | .5                 | .3                                | .2      | .2      | .1      | .1      | 1.0      | .4                                | 71.4                             |
| RR District No. 6         | 760.0                     | 95.8               | 120.7                             | 103.2   | 89.5    | 80.6    | 69.8    | 463.8    | 296.2                             | 61.0                             |
| RR District No. 7B        | .7                        | .1                 | .1                                | .1      | .1      | .0      | .0      | .3       | .4                                | 42.9                             |
| RR District No. 7C        | 176.8                     | 36.1               | 30.2                              | 13.4    | 12.0    | 10.8    | 11.6    | 78.1     | 98.7                              | 44.2                             |
| RR District No. 8         | 425.1                     | 70.9               | 60.7                              | 42.9    | 40.0    | 37.5    | 30.0    | 211.1    | 214.0                             | 49.7                             |
| RR District No. 8A        | 3.6                       | 1.3                | .9                                | .5      | .4      | .4      | .3      | 2.4      | 1.2                               | 66.7                             |
| RR District No. 9         | 146.2                     | 38.4               | 34.7                              | 26.2    | 20.9    | 16.5    | 12.9    | 111.2    | 35.0                              | 76.1                             |
| RR District No. 10        | 1,384.2                   | 176.7              | 153.1                             | 105.3   | 100.4   | 93.5    | 88.6    | 541.0    | 843.2                             | 39.1                             |
| Offshore State            | 53.2                      | 5.4                | 23.1                              | 11.8    | 7.1     | 4.2     | 3.0     | 49.1     | 4.1                               | 92.3                             |
| Offshore Federal          | 1,968.2                   | 444.1              | 528.6                             | 421.2   | 298.9   | 217.2   | 145.3   | 1,611.1  | 357.1                             | 81.9                             |
| Offshore General          | .0                        | .3                 | .0                                | .0      | .0      | .0      | .0      | .0       | .0                                | .0                               |
| Offshore Total            | 2,021.4                   | 449.8              | 551.7                             | 433.0   | 306.0   | 221.4   | 148.3   | 1,660.2  | 361.2                             | 82.1                             |
| State Total               | 6,325.4                   | 1,257.5            | 1,433.3                           | 956.7   | 742.5   | 584.1   | 455.9   | 4,172.5  | 2,152.9                           | 66.0                             |
| Utah                      | 270.8                     | 21.7               | 22.3                              | 20.0    | 20.7    | 21.2    | 21.2    | 105.4    | 165.4                             | 38.9                             |
| Virginia                  | 128.1                     | 16.2               | 16.7                              | 13.7    | 11.3    | 9.5     | 8.1     | 59.4     | 68.7                              | 46.4                             |
| Washington                | 6.6                       | .0                 | .0                                | .0      | .0      | .0      | .0      | .0       | 6.6                               | .0                               |
| West Virginia             | 1,609.0                   | 118.6              | 121.5                             | 110.5   | 103.2   | 95.2    | 88.8    | 519.0    | 1,090.0                           | 32.3                             |
| Wyoming                   | 2,033.8                   | 184.6              | 194.4                             | 165.7   | 155.5   | 171.2   | 154.3   | 841.1    | 1,192.7                           | 41.4                             |
| Undesignated <sup>b</sup> | 1,459.6                   | .1                 | .0                                | .0      | 1.7     | 1.5     | 1.4     | 4.7      | 1,454.9                           | .3                               |
| Total All States          | 37,685.4                  | 4,843.3            | 5,543.9                           | 4,373.2 | 3,543.8 | 3,000.2 | 2,445.8 | 19,006.9 | 18,678.5                          | 50.4                             |

<sup>a</sup> Warranty reserves are reserves guaranteed by contract but not supported by dedication of specific approved sources of supply.

<sup>b</sup> Includes reserves in underground storage which were reported without a State designation.

Note: Totals may not equal sum of components due to independent rounding.

**Figure 5. Production and Composite Forecast of Annual Deliveries  
1963 through 2008  
(Trillion Cubic Feet)**



Source: Energy Information Administration, Form FERC-15, "Interstate Pipeline's Annual Report of Gas Supply."

**Table 16. Deliverability Summaries: Estimated Annual Volumes**  
(Million Cubic Feet)

| Year                           | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total     | Annual Requirement | Total Certificate Requirement |
|--------------------------------|----------------------|------------------------|-------------------------------|-----------|--------------------|-------------------------------|
| <b>ANR Pipeline Co</b>         |                      |                        |                               |           |                    |                               |
| 1990                           | 161,258              | 0                      | 21,775                        | 183,033   | --                 | --                            |
| 1991                           | 161,258              | 0                      | 21,775                        | 183,033   | --                 | --                            |
| 1992                           | 161,258              | 0                      | 21,775                        | 183,033   | --                 | --                            |
| 1993                           | 161,258              | 0                      | 21,775                        | 183,033   | --                 | --                            |
| 1994                           | 125,242              | 0                      | 21,775                        | 147,017   | --                 | --                            |
| 1995                           | 96,320               | 0                      | 12,775                        | 109,095   | --                 | --                            |
| 1996                           | 81,405               | 0                      | 12,775                        | 94,180    | --                 | --                            |
| 1997                           | 71,703               | 0                      | 12,775                        | 84,478    | --                 | --                            |
| 1998                           | 61,018               | 0                      | 12,775                        | 73,793    | --                 | --                            |
| 1999                           | 50,660               | 0                      | 12,775                        | 63,435    | --                 | --                            |
| 2000                           | 43,913               | 0                      | 12,775                        | 56,688    | --                 | --                            |
| 2001                           | 34,751               | 0                      | 12,775                        | 47,526    | --                 | --                            |
| 2002                           | 26,311               | 0                      | 12,775                        | 39,086    | --                 | --                            |
| 2003                           | 24,589               | 0                      | 12,775                        | 37,364    | --                 | --                            |
| 2004                           | 9,566                | 0                      | 12,775                        | 22,341    | --                 | --                            |
| 2005                           | 2,625                | 0                      | 12,775                        | 15,400    | --                 | --                            |
| 2006                           | 101                  | 0                      | 12,775                        | 12,876    | --                 | --                            |
| 2007                           | 0                    | 0                      | 12,775                        | 12,775    | --                 | --                            |
| 2008                           | 0                    | 0                      | 12,775                        | 12,775    | --                 | --                            |
| 2009                           | 0                    | 0                      | 1,939                         | 1,939     | --                 | --                            |
| Projected Total                | 1,273,236            | 0                      | 289,664                       | 1,562,900 | 183,033            | 837,382                       |
| <b>Arkla Inc</b>               |                      |                        |                               |           |                    |                               |
| 1990                           | 416,203              | 379                    | 9,333                         | 425,915   | --                 | --                            |
| 1991                           | 385,567              | 379                    | 9,333                         | 395,299   | --                 | --                            |
| 1992                           | 353,762              | 379                    | 9,333                         | 363,474   | --                 | --                            |
| 1993                           | 321,318              | 379                    | 9,333                         | 331,030   | --                 | --                            |
| 1994                           | 289,209              | 379                    | 9,333                         | 298,921   | --                 | --                            |
| 1995                           | 249,264              | 379                    | 9,333                         | 258,976   | --                 | --                            |
| 1996                           | 221,145              | 379                    | 9,333                         | 230,857   | --                 | --                            |
| 1997                           | 191,511              | 379                    | 9,333                         | 201,223   | --                 | --                            |
| 1998                           | 170,430              | 379                    | 9,333                         | 180,142   | --                 | --                            |
| 1999                           | 131,555              | 379                    | 9,333                         | 141,267   | --                 | --                            |
| 2000                           | 109,910              | 379                    | 9,333                         | 119,622   | --                 | --                            |
| 2001                           | 100,089              | 379                    | 9,333                         | 109,801   | --                 | --                            |
| 2002                           | 89,022               | 379                    | 9,333                         | 98,734    | --                 | --                            |
| 2003                           | 76,614               | 379                    | 9,333                         | 86,326    | --                 | --                            |
| 2004                           | 58,694               | 379                    | 9,333                         | 68,406    | --                 | --                            |
| 2005                           | 49,721               | 379                    | 9,333                         | 59,433    | --                 | --                            |
| 2006                           | 39,020               | 379                    | 9,333                         | 48,732    | --                 | --                            |
| 2007                           | 25,577               | 379                    | 9,333                         | 35,289    | --                 | --                            |
| 2008                           | 19,833               | 379                    | 9,333                         | 29,545    | --                 | --                            |
| 2009                           | 8,584                | 379                    | 9,333                         | 18,296    | --                 | --                            |
| Projected Total                | 3,307,048            | 7,580                  | 186,660                       | 3,501,288 | 644,604            | 0                             |
| <b>Carnegie Natural Gas Co</b> |                      |                        |                               |           |                    |                               |
| 1990                           | 4,400                | 0                      | 21,976                        | 26,376    | --                 | --                            |
| 1991                           | 4,400                | 0                      | 21,976                        | 26,376    | --                 | --                            |
| 1992                           | 4,150                | 0                      | 21,976                        | 26,126    | --                 | --                            |
| 1993                           | 4,050                | 0                      | 21,976                        | 26,026    | --                 | --                            |
| 1994                           | 4,000                | 0                      | 21,976                        | 25,976    | --                 | --                            |
| 1995                           | 3,950                | 0                      | 21,976                        | 25,926    | --                 | --                            |
| 1996                           | 3,900                | 0                      | 21,976                        | 25,876    | --                 | --                            |
| 1997                           | 3,850                | 0                      | 21,976                        | 25,826    | --                 | --                            |
| 1998                           | 3,800                | 0                      | 21,976                        | 25,776    | --                 | --                            |
| 1999                           | 2,908                | 0                      | 21,976                        | 24,884    | --                 | --                            |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                              | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total      | Annual Requirement | Total Certificate Requirement |
|-----------------------------------|----------------------|------------------------|-------------------------------|------------|--------------------|-------------------------------|
| <b>Carnegie Natural Gas Co</b>    |                      |                        |                               |            |                    |                               |
| 2000                              | 2,850                | 0                      | 21,976                        | 24,826     | --                 | --                            |
| 2001                              | 2,800                | 0                      | 21,976                        | 24,776     | --                 | --                            |
| 2002                              | 2,650                | 0                      | 21,976                        | 24,626     | --                 | --                            |
| 2003                              | 2,450                | 0                      | 21,976                        | 24,426     | --                 | --                            |
| 2004                              | 2,250                | 0                      | 21,976                        | 24,226     | --                 | --                            |
| 2005                              | 2,250                | 0                      | 21,976                        | 24,226     | --                 | --                            |
| 2006                              | 2,150                | 0                      | 21,976                        | 24,126     | --                 | --                            |
| 2007                              | 2,150                | 0                      | 21,976                        | 24,126     | --                 | --                            |
| 2008                              | 2,050                | 0                      | 21,976                        | 24,026     | --                 | --                            |
| 2009                              | 2,050                | 0                      | 21,976                        | 24,026     | --                 | --                            |
| Projected Total                   | 63,058               | 0                      | 439,520                       | 502,578    | 15,193             | 0                             |
| <b>CNG Transmission Corp</b>      |                      |                        |                               |            |                    |                               |
| 1990                              | 96,283               | 0                      | 565,905                       | 662,188    | --                 | --                            |
| 1991                              | 92,627               | 0                      | 543,727                       | 636,354    | --                 | --                            |
| 1992                              | 87,437               | 0                      | 544,879                       | 632,316    | --                 | --                            |
| 1993                              | 83,606               | 0                      | 543,727                       | 627,333    | --                 | --                            |
| 1994                              | 79,528               | 0                      | 543,727                       | 623,255    | --                 | --                            |
| 1995                              | 71,813               | 0                      | 543,727                       | 615,540    | --                 | --                            |
| 1996                              | 63,837               | 0                      | 544,879                       | 608,716    | --                 | --                            |
| 1997                              | 57,073               | 0                      | 543,727                       | 600,800    | --                 | --                            |
| 1998                              | 52,119               | 0                      | 543,727                       | 595,846    | --                 | --                            |
| 1999                              | 47,526               | 0                      | 543,727                       | 591,253    | --                 | --                            |
| 2000                              | 43,022               | 0                      | 544,879                       | 587,901    | --                 | --                            |
| 2001                              | 30,928               | 0                      | 543,727                       | 574,655    | --                 | --                            |
| 2002                              | 28,995               | 0                      | 543,727                       | 572,722    | --                 | --                            |
| 2003                              | 27,162               | 0                      | 543,727                       | 570,889    | --                 | --                            |
| 2004                              | 24,375               | 0                      | 544,879                       | 569,254    | --                 | --                            |
| 2005                              | 22,869               | 0                      | 543,727                       | 566,596    | --                 | --                            |
| 2006                              | 21,665               | 0                      | 543,727                       | 565,392    | --                 | --                            |
| 2007                              | 19,617               | 0                      | 543,727                       | 563,344    | --                 | --                            |
| 2008                              | 18,246               | 0                      | 544,879                       | 563,125    | --                 | --                            |
| 2009                              | 16,524               | 0                      | 543,727                       | 560,251    | --                 | --                            |
| Projected Total                   | 985,252              | 0                      | 10,902,478                    | 11,887,730 | 296,646            | 0                             |
| <b>Colorado Interstate Gas Co</b> |                      |                        |                               |            |                    |                               |
| 1990                              | 143,126              | 0                      | 0                             | 143,126    | --                 | --                            |
| 1991                              | 138,603              | 0                      | 0                             | 138,603    | --                 | --                            |
| 1992                              | 138,614              | 0                      | 0                             | 138,614    | --                 | --                            |
| 1993                              | 132,162              | 0                      | 0                             | 132,162    | --                 | --                            |
| 1994                              | 125,110              | 0                      | 0                             | 125,110    | --                 | --                            |
| 1995                              | 120,284              | 0                      | 0                             | 120,284    | --                 | --                            |
| 1996                              | 103,141              | 0                      | 0                             | 103,141    | --                 | --                            |
| 1997                              | 88,870               | 0                      | 0                             | 88,870     | --                 | --                            |
| 1998                              | 76,973               | 0                      | 0                             | 76,973     | --                 | --                            |
| 1999                              | 66,525               | 0                      | 0                             | 66,525     | --                 | --                            |
| 2000                              | 57,660               | 0                      | 0                             | 57,660     | --                 | --                            |
| 2001                              | 50,170               | 0                      | 0                             | 50,170     | --                 | --                            |
| 2002                              | 43,720               | 0                      | 0                             | 43,720     | --                 | --                            |
| 2003                              | 38,303               | 0                      | 0                             | 38,303     | --                 | --                            |
| 2004                              | 33,676               | 0                      | 0                             | 33,676     | --                 | --                            |
| 2005                              | 29,614               | 0                      | 0                             | 29,614     | --                 | --                            |
| 2006                              | 26,286               | 0                      | 0                             | 26,286     | --                 | --                            |
| 2007                              | 23,376               | 0                      | 0                             | 23,376     | --                 | --                            |
| 2008                              | 20,847               | 0                      | 0                             | 20,847     | --                 | --                            |
| 2009                              | 18,619               | 0                      | 0                             | 18,619     | --                 | --                            |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                                  | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total     | Annual Requirement | Total Certificate Requirement |
|---------------------------------------|----------------------|------------------------|-------------------------------|-----------|--------------------|-------------------------------|
| <b>Colorado Interstate Gas Co</b>     |                      |                        |                               |           |                    |                               |
| Projected Total                       | 1,475,679            | 0                      | 0                             | 1,475,679 | 113,260            | 93,505                        |
| <b>Columbia Gas Transmission Corp</b> |                      |                        |                               |           |                    |                               |
| 1990                                  | 533,516              | 0                      | 13,887                        | 547,403   | ---                | ---                           |
| 1991                                  | 474,239              | 0                      | 9,475                         | 483,714   | ---                | ---                           |
| 1992                                  | 396,571              | 0                      | 9,499                         | 406,070   | ---                | ---                           |
| 1993                                  | 339,620              | 0                      | 9,475                         | 349,095   | ---                | ---                           |
| 1994                                  | 277,319              | 0                      | 9,475                         | 286,794   | ---                | ---                           |
| 1995                                  | 231,444              | 0                      | 9,475                         | 240,919   | ---                | ---                           |
| 1996                                  | 189,733              | 0                      | 9,499                         | 199,232   | ---                | ---                           |
| 1997                                  | 152,208              | 0                      | 9,475                         | 161,683   | ---                | ---                           |
| 1998                                  | 119,347              | 0                      | 9,475                         | 128,822   | ---                | ---                           |
| 1999                                  | 99,541               | 0                      | 9,475                         | 109,016   | ---                | ---                           |
| 2000                                  | 83,720               | 0                      | 9,499                         | 93,219    | ---                | ---                           |
| 2001                                  | 70,222               | 0                      | 9,475                         | 79,697    | ---                | ---                           |
| 2002                                  | 57,602               | 0                      | 9,475                         | 67,077    | ---                | ---                           |
| 2003                                  | 44,828               | 0                      | 9,475                         | 54,303    | ---                | ---                           |
| 2004                                  | 37,469               | 0                      | 9,499                         | 46,968    | ---                | ---                           |
| 2005                                  | 32,473               | 0                      | 9,475                         | 41,948    | ---                | ---                           |
| 2006                                  | 26,613               | 0                      | 9,475                         | 36,088    | ---                | ---                           |
| 2007                                  | 23,993               | 0                      | 9,475                         | 33,468    | ---                | ---                           |
| 2008                                  | 21,683               | 0                      | 9,499                         | 31,182    | ---                | ---                           |
| 2009                                  | 19,385               | 0                      | 9,475                         | 28,860    | ---                | ---                           |
| Projected Total                       | 3,231,526            | 0                      | 194,032                       | 3,425,558 | 271,839            | 366,978                       |
| <b>El Paso Natural Gas Co</b>         |                      |                        |                               |           |                    |                               |
| 1990                                  | 238,692              | 0                      | 0                             | 238,692   | ---                | ---                           |
| 1991                                  | 220,169              | 0                      | 0                             | 220,169   | ---                | ---                           |
| 1992                                  | 199,846              | 0                      | 0                             | 199,846   | ---                | ---                           |
| 1993                                  | 184,631              | 0                      | 0                             | 184,631   | ---                | ---                           |
| 1994                                  | 162,663              | 0                      | 0                             | 162,663   | ---                | ---                           |
| 1995                                  | 150,739              | 0                      | 0                             | 150,739   | ---                | ---                           |
| 1996                                  | 142,634              | 0                      | 0                             | 142,634   | ---                | ---                           |
| 1997                                  | 135,720              | 0                      | 0                             | 135,720   | ---                | ---                           |
| 1998                                  | 129,551              | 0                      | 0                             | 129,551   | ---                | ---                           |
| 1999                                  | 124,349              | 0                      | 0                             | 124,349   | ---                | ---                           |
| 2000                                  | 54,106               | 0                      | 0                             | 54,106    | ---                | ---                           |
| 2001                                  | 49,932               | 0                      | 0                             | 49,932    | ---                | ---                           |
| 2002                                  | 46,054               | 0                      | 0                             | 46,054    | ---                | ---                           |
| 2003                                  | 43,032               | 0                      | 0                             | 43,032    | ---                | ---                           |
| 2004                                  | 40,138               | 0                      | 0                             | 40,138    | ---                | ---                           |
| 2005                                  | 37,554               | 0                      | 0                             | 37,554    | ---                | ---                           |
| 2006                                  | 35,343               | 0                      | 0                             | 35,343    | ---                | ---                           |
| 2007                                  | 33,371               | 0                      | 0                             | 33,371    | ---                | ---                           |
| 2008                                  | 30,222               | 0                      | 0                             | 30,222    | ---                | ---                           |
| 2009                                  | 30,222               | 0                      | 0                             | 30,222    | ---                | ---                           |
| Projected Total                       | 2,088,968            | 0                      | 0                             | 2,088,968 | 147,450            | 1,428,358                     |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                               | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total   | Annual Requirement | Total Certificate Requirement |
|------------------------------------|----------------------|------------------------|-------------------------------|---------|--------------------|-------------------------------|
| <b>Equitrans Gas Co</b>            |                      |                        |                               |         |                    |                               |
| 1990                               | 14,001               | 7,732                  | 23,002                        | 44,735  | --                 | --                            |
| 1991                               | 13,252               | 7,023                  | 26,005                        | 46,280  | --                 | --                            |
| 1992                               | 12,556               | 8,052                  | 23,726                        | 44,334  | --                 | --                            |
| 1993                               | 11,908               | 6,910                  | 25,065                        | 43,883  | --                 | --                            |
| 1994                               | 11,305               | 7,049                  | 25,441                        | 43,795  | --                 | --                            |
| 1995                               | 10,742               | 7,143                  | 25,823                        | 43,708  | --                 | --                            |
| 1996                               | 10,217               | 7,193                  | 26,210                        | 43,620  | --                 | --                            |
| 1997                               | 9,725                | 7,336                  | 26,472                        | 43,533  | --                 | --                            |
| 1998                               | 9,265                | 7,444                  | 26,737                        | 43,446  | --                 | --                            |
| 1999                               | 8,834                | 7,521                  | 27,004                        | 43,359  | --                 | --                            |
| 2000                               | 8,429                | 7,569                  | 27,274                        | 43,272  | --                 | --                            |
| 2001                               | 8,049                | 7,618                  | 27,519                        | 43,186  | --                 | --                            |
| 2002                               | 7,691                | 7,669                  | 27,739                        | 43,099  | --                 | --                            |
| 2003                               | 7,355                | 7,697                  | 27,961                        | 43,013  | --                 | --                            |
| 2004                               | 7,037                | 7,733                  | 28,157                        | 42,927  | --                 | --                            |
| 2005                               | 6,738                | 7,777                  | 28,326                        | 42,841  | --                 | --                            |
| 2006                               | 6,455                | 7,805                  | 28,496                        | 42,756  | --                 | --                            |
| 2007                               | 6,188                | 7,844                  | 28,638                        | 42,670  | --                 | --                            |
| 2008                               | 5,934                | 7,870                  | 28,781                        | 42,585  | --                 | --                            |
| 2009                               | 5,695                | 7,880                  | 28,925                        | 42,500  | --                 | --                            |
| Projected Total                    | 181,376              | 150,865                | 537,301                       | 869,542 | 44,735             | 224,673                       |
| <b>Florida Gas Transmission Co</b> |                      |                        |                               |         |                    |                               |
| 1990                               | 101,356              | 189,498                | 18,262                        | 309,116 | --                 | --                            |
| 1991                               | 86,399               | 0                      | 0                             | 86,399  | --                 | --                            |
| 1992                               | 64,201               | 0                      | 0                             | 64,201  | --                 | --                            |
| 1993                               | 43,583               | 0                      | 0                             | 43,583  | --                 | --                            |
| 1994                               | 29,094               | 0                      | 0                             | 29,094  | --                 | --                            |
| 1995                               | 26,334               | 0                      | 0                             | 26,334  | --                 | --                            |
| 1996                               | 20,414               | 0                      | 0                             | 20,414  | --                 | --                            |
| 1997                               | 16,910               | 0                      | 0                             | 16,910  | --                 | --                            |
| 1998                               | 13,102               | 0                      | 0                             | 13,102  | --                 | --                            |
| 1999                               | 9,698                | 0                      | 0                             | 9,698   | --                 | --                            |
| 2000                               | 8,635                | 0                      | 0                             | 8,635   | --                 | --                            |
| 2001                               | 6,688                | 0                      | 0                             | 6,688   | --                 | --                            |
| 2002                               | 4,864                | 0                      | 0                             | 4,864   | --                 | --                            |
| 2003                               | 4,226                | 0                      | 0                             | 4,226   | --                 | --                            |
| 2004                               | 3,372                | 0                      | 0                             | 3,372   | --                 | --                            |
| 2005                               | 2,772                | 0                      | 0                             | 2,772   | --                 | --                            |
| 2006                               | 2,197                | 0                      | 0                             | 2,197   | --                 | --                            |
| 2007                               | 2,101                | 0                      | 0                             | 2,101   | --                 | --                            |
| 2008                               | 1,763                | 0                      | 0                             | 1,763   | --                 | --                            |
| 2009                               | 404                  | 0                      | 0                             | 404     | --                 | --                            |
| Projected Total                    | 448,113              | 189,498                | 18,262                        | 655,873 | 309,116            | 300,760                       |
| <b>K N Energy Inc</b>              |                      |                        |                               |         |                    |                               |
| 1990                               | 73,006               | 0                      | 3,240                         | 76,246  | --                 | --                            |
| 1991                               | 62,785               | 0                      | 3,240                         | 66,025  | --                 | --                            |
| 1992                               | 56,246               | 0                      | 3,040                         | 59,286  | --                 | --                            |
| 1993                               | 46,747               | 0                      | 3,040                         | 49,787  | --                 | --                            |
| 1994                               | 39,404               | 0                      | 1,227                         | 40,631  | --                 | --                            |
| 1995                               | 34,552               | 0                      | 40                            | 34,592  | --                 | --                            |
| 1996                               | 32,082               | 0                      | 40                            | 32,122  | --                 | --                            |
| 1997                               | 39,422               | 0                      | 40                            | 39,462  | --                 | --                            |
| 1998                               | 38,148               | 0                      | 40                            | 38,188  | --                 | --                            |
| 1999                               | 36,907               | 0                      | 40                            | 36,947  | --                 | --                            |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                                     | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total   | Annual Requirement | Total Certificate Requirement |
|--|----------------------|------------------------|-------------------------------|---------|--------------------|-------------------------------|
| <b>K N Energy Inc</b>                    |                      |                        |                               |         |                    |                               |
| 2000                                     | 46,246               | 0                      | 40                            | 46,286  | ---                | ---                           |
| 2001                                     | 39,392               | 0                      | 40                            | 39,432  | ---                | ---                           |
| 2002                                     | 34,033               | 0                      | 40                            | 34,073  | ---                | ---                           |
| 2003                                     | 29,743               | 0                      | 40                            | 29,783  | ---                | ---                           |
| 2004                                     | 26,010               | 0                      | 40                            | 26,050  | ---                | ---                           |
| 2005                                     | 22,875               | 0                      | 40                            | 22,915  | ---                | ---                           |
| 2006                                     | 19,594               | 0                      | 40                            | 19,634  | ---                | ---                           |
| 2007                                     | 17,514               | 0                      | 37                            | 17,551  | ---                | ---                           |
| 2008                                     | 15,631               | 0                      | 0                             | 15,631  | ---                | ---                           |
| 2009                                     | 13,943               | 0                      | 0                             | 13,943  | ---                | ---                           |
| <i>Projected Total</i>                   | 724,280              | 0                      | 14,304                        | 738,584 | 76,246             | 76,246                        |
| <b>Kentucky West Va Gas Co</b>           |                      |                        |                               |         |                    |                               |
| 1990                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 1991                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 1992                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 1993                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 1994                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 1995                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 1996                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 1997                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 1998                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 1999                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 2000                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 2001                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 2002                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 2003                                     | 21,813               | 0                      | 0                             | 21,813  | ---                | ---                           |
| 2004                                     | 20,160               | 0                      | 0                             | 20,160  | ---                | ---                           |
| 2005                                     | 0                    | 0                      | 0                             | 0       | ---                | ---                           |
| 2006                                     | 0                    | 0                      | 0                             | 0       | ---                | ---                           |
| 2007                                     | 0                    | 0                      | 0                             | 0       | ---                | ---                           |
| 2008                                     | 0                    | 0                      | 0                             | 0       | ---                | ---                           |
| 2009                                     | 0                    | 0                      | 0                             | 0       | ---                | ---                           |
| <i>Projected Total</i>                   | 325,542              | 0                      | 0                             | 325,542 | 21,813             | 0                             |
| <b>Lone Star Gas Co Div Enserch Corp</b> |                      |                        |                               |         |                    |                               |
| 1990                                     | 14,732               | 0                      | 0                             | 14,732  | ---                | ---                           |
| 1991                                     | 12,673               | 0                      | 0                             | 12,673  | ---                | ---                           |
| 1992                                     | 10,913               | 0                      | 0                             | 10,913  | ---                | ---                           |
| 1993                                     | 9,210                | 0                      | 0                             | 9,210   | ---                | ---                           |
| 1994                                     | 7,386                | 0                      | 0                             | 7,386   | ---                | ---                           |
| 1995                                     | 5,822                | 0                      | 0                             | 5,822   | ---                | ---                           |
| 1996                                     | 4,807                | 0                      | 0                             | 4,807   | ---                | ---                           |
| 1997                                     | 4,157                | 0                      | 0                             | 4,157   | ---                | ---                           |
| 1998                                     | 3,609                | 0                      | 0                             | 3,609   | ---                | ---                           |
| 1999                                     | 3,165                | 0                      | 0                             | 3,165   | ---                | ---                           |
| 2000                                     | 2,423                | 0                      | 0                             | 2,423   | ---                | ---                           |
| 2001                                     | 1,805                | 0                      | 0                             | 1,805   | ---                | ---                           |
| 2002                                     | 1,636                | 0                      | 0                             | 1,636   | ---                | ---                           |
| 2003                                     | 1,304                | 0                      | 0                             | 1,304   | ---                | ---                           |
| 2004                                     | 1,174                | 0                      | 0                             | 1,174   | ---                | ---                           |
| 2005                                     | 1,022                | 0                      | 0                             | 1,022   | ---                | ---                           |
| 2006                                     | 903                  | 0                      | 0                             | 903     | ---                | ---                           |
| 2007                                     | 821                  | 0                      | 0                             | 821     | ---                | ---                           |
| 2008                                     | 745                  | 0                      | 0                             | 745     | ---                | ---                           |
| 2009                                     | 313                  | 0                      | 0                             | 313     | ---                | ---                           |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                                       | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total   | Annual Requirement | Total Certificate Requirement |
|--|----------------------|------------------------|-------------------------------|---------|--------------------|-------------------------------|
| <b>Lone Star Gas Co Div Enserch Corp</b>   |                      |                        |                               |         |                    |                               |
| Projected Total                            | 88,620               | 0                      | 0                             | 88,620  | 17,718             | 15,371                        |
| <b>Mid Louisiana Gas Co</b>                |                      |                        |                               |         |                    |                               |
| 1990                                       | 18,274               | 0                      | 0                             | 18,274  | ---                | ---                           |
| 1991                                       | 13,309               | 0                      | 0                             | 13,309  | ---                | ---                           |
| 1992                                       | 10,637               | 0                      | 0                             | 10,637  | ---                | ---                           |
| 1993                                       | 8,599                | 0                      | 0                             | 8,599   | ---                | ---                           |
| 1994                                       | 7,019                | 0                      | 0                             | 7,019   | ---                | ---                           |
| 1995                                       | 5,748                | 0                      | 0                             | 5,748   | ---                | ---                           |
| 1996                                       | 4,662                | 0                      | 0                             | 4,662   | ---                | ---                           |
| 1997                                       | 3,885                | 0                      | 0                             | 3,885   | ---                | ---                           |
| 1998                                       | 3,311                | 0                      | 0                             | 3,311   | ---                | ---                           |
| 1999                                       | 2,854                | 0                      | 0                             | 2,854   | ---                | ---                           |
| 2000                                       | 2,450                | 0                      | 0                             | 2,450   | ---                | ---                           |
| 2001                                       | 2,106                | 0                      | 0                             | 2,106   | ---                | ---                           |
| 2002                                       | 1,774                | 0                      | 0                             | 1,774   | ---                | ---                           |
| 2003                                       | 1,532                | 0                      | 0                             | 1,532   | ---                | ---                           |
| 2004                                       | 1,368                | 0                      | 0                             | 1,368   | ---                | ---                           |
| 2005                                       | 1,222                | 0                      | 0                             | 1,222   | ---                | ---                           |
| 2006                                       | 1,072                | 0                      | 0                             | 1,072   | ---                | ---                           |
| 2007                                       | 916                  | 0                      | 0                             | 916     | ---                | ---                           |
| 2008                                       | 1                    | 0                      | 0                             | 1       | ---                | ---                           |
| 2009                                       | 0                    | 0                      | 0                             | 0       | ---                | ---                           |
| Projected Total                            | 90,739               | 0                      | 0                             | 90,739  | 20,974             | 55,659                        |
| <b>Mississippi River Transmission Corp</b> |                      |                        |                               |         |                    |                               |
| 1990                                       | 111,394              | 0                      | 18,554                        | 129,948 | ---                | ---                           |
| 1991                                       | 108,552              | 0                      | 15,438                        | 123,990 | ---                | ---                           |
| 1992                                       | 89,979               | 0                      | 147                           | 90,126  | ---                | ---                           |
| 1993                                       | 86,070               | 0                      | 97                            | 86,167  | ---                | ---                           |
| 1994                                       | 78,983               | 0                      | 64                            | 79,047  | ---                | ---                           |
| 1995                                       | 76,175               | 0                      | 50                            | 76,225  | ---                | ---                           |
| 1996                                       | 74,818               | 0                      | 43                            | 74,861  | ---                | ---                           |
| 1997                                       | 73,650               | 0                      | 36                            | 73,686  | ---                | ---                           |
| 1998                                       | 72,592               | 0                      | 24                            | 72,616  | ---                | ---                           |
| 1999                                       | 11,467               | 0                      | 23                            | 11,490  | ---                | ---                           |
| 2000                                       | 5,092                | 0                      | 21                            | 5,113   | ---                | ---                           |
| 2001                                       | 4,369                | 0                      | 15                            | 4,384   | ---                | ---                           |
| 2002                                       | 3,793                | 0                      | 14                            | 3,807   | ---                | ---                           |
| 2003                                       | 3,113                | 0                      | 12                            | 3,125   | ---                | ---                           |
| 2004                                       | 2,626                | 0                      | 12                            | 2,638   | ---                | ---                           |
| 2005                                       | 2,246                | 0                      | 11                            | 2,257   | ---                | ---                           |
| 2006                                       | 1,597                | 0                      | 11                            | 1,608   | ---                | ---                           |
| 2007                                       | 1,245                | 0                      | 10                            | 1,255   | ---                | ---                           |
| 2008                                       | 1,122                | 0                      | 10                            | 1,132   | ---                | ---                           |
| 2009                                       | 1,015                | 0                      | 6                             | 1,021   | ---                | ---                           |
| Projected Total                            | 809,898              | 0                      | 34,598                        | 844,496 | 104,501            | 0                             |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                                       | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total     | Annual Requirement | Total Certificate Requirement |
|--|----------------------|------------------------|-------------------------------|-----------|--------------------|-------------------------------|
| <b>National Fuel Gas Supply Corp</b>       |                      |                        |                               |           |                    |                               |
| 1990                                       | 12,886               | 0                      | 162,557                       | 175,243   | --                 | --                            |
| 1991                                       | 12,584               | 0                      | 160,055                       | 172,639   | --                 | --                            |
| 1992                                       | 12,491               | 0                      | 137,185                       | 149,676   | --                 | --                            |
| 1993                                       | 12,402               | 0                      | 130,055                       | 142,457   | --                 | --                            |
| 1994                                       | 12,260               | 0                      | 130,055                       | 142,315   | --                 | --                            |
| 1995                                       | 11,847               | 0                      | 126,809                       | 138,656   | --                 | --                            |
| 1996                                       | 11,461               | 0                      | 126,809                       | 138,270   | --                 | --                            |
| 1997                                       | 11,099               | 0                      | 126,809                       | 137,908   | --                 | --                            |
| 1998                                       | 10,759               | 0                      | 126,809                       | 137,568   | --                 | --                            |
| 1999                                       | 10,440               | 0                      | 126,809                       | 137,249   | --                 | --                            |
| 2000                                       | 10,139               | 0                      | 126,809                       | 136,948   | --                 | --                            |
| 2001                                       | 9,855                | 0                      | 106,794                       | 116,649   | --                 | --                            |
| 2002                                       | 9,586                | 0                      | 1,328                         | 10,914    | --                 | --                            |
| 2003                                       | 9,332                | 0                      | 1,328                         | 10,660    | --                 | --                            |
| 2004                                       | 9,091                | 0                      | 430                           | 9,521     | --                 | --                            |
| 2005                                       | 8,861                | 0                      | 430                           | 9,291     | --                 | --                            |
| 2006                                       | 8,644                | 0                      | 0                             | 8,644     | --                 | --                            |
| 2007                                       | 8,436                | 0                      | 0                             | 8,436     | --                 | --                            |
| 2008                                       | 8,239                | 0                      | 0                             | 8,239     | --                 | --                            |
| 2009                                       | 8,050                | 0                      | 0                             | 8,050     | --                 | --                            |
| Projected Total                            | 208,262              | 0                      | 1,591,071                     | 1,799,333 | 165,187            | 0                             |
| <b>Natural Gas Pipeline Co of America</b>  |                      |                        |                               |           |                    |                               |
| 1990                                       | 227,321              | 39,390                 | 89,127                        | 355,838   | --                 | --                            |
| 1991                                       | 171,707              | 16,335                 | 31,571                        | 219,613   | --                 | --                            |
| 1992                                       | 131,518              | 14,418                 | 26,095                        | 172,032   | --                 | --                            |
| 1993                                       | 86,604               | 6,559                  | 20,620                        | 113,784   | --                 | --                            |
| 1994                                       | 58,475               | 758                    | 15,145                        | 74,378    | --                 | --                            |
| 1995                                       | 47,302               | 528                    | 10,585                        | 58,415    | --                 | --                            |
| 1996                                       | 39,403               | 453                    | 10,585                        | 50,441    | --                 | --                            |
| 1997                                       | 31,527               | 391                    | 10,585                        | 42,503    | --                 | --                            |
| 1998                                       | 17,297               | 341                    | 10,585                        | 28,223    | --                 | --                            |
| 1999                                       | 15,867               | 297                    | 10,585                        | 26,750    | --                 | --                            |
| 2000                                       | 13,349               | 112                    | 10,585                        | 24,047    | --                 | --                            |
| 2001                                       | 7,017                | 0                      | 10,585                        | 17,602    | --                 | --                            |
| 2002                                       | 5,361                | 0                      | 10,585                        | 15,946    | --                 | --                            |
| 2003                                       | 4,034                | 0                      | 10,585                        | 14,619    | --                 | --                            |
| 2004                                       | 3,096                | 0                      | 10,585                        | 13,681    | --                 | --                            |
| 2005                                       | 2,462                | 0                      | 10,585                        | 13,047    | --                 | --                            |
| 2006                                       | 1,980                | 0                      | 10,585                        | 12,565    | --                 | --                            |
| 2007                                       | 1,628                | 0                      | 10,585                        | 12,213    | --                 | --                            |
| 2008                                       | 1,280                | 0                      | 10,585                        | 11,865    | --                 | --                            |
| 2009                                       | 1,052                | 0                      | 6,141                         | 7,194     | --                 | --                            |
| Projected Total                            | 868,280              | 79,582                 | 336,889                       | 1,284,756 | 355,838            | 973,275                       |
| <b>Northern Natural Div InterNorth Inc</b> |                      |                        |                               |           |                    |                               |
| 1990                                       | 322,773              | 1,262                  | 154,388                       | 478,423   | --                 | --                            |
| 1991                                       | 88,837               | 980                    | 145,406                       | 235,223   | --                 | --                            |
| 1992                                       | 76,844               | 738                    | 145,306                       | 222,888   | --                 | --                            |
| 1993                                       | 60,419               | 556                    | 36,326                        | 97,301    | --                 | --                            |
| 1994                                       | 69,354               | 450                    | 0                             | 69,804    | --                 | --                            |
| 1995                                       | 62,741               | 413                    | 0                             | 63,154    | --                 | --                            |
| 1996                                       | 52,520               | 350                    | 0                             | 52,870    | --                 | --                            |
| 1997                                       | 45,061               | 297                    | 0                             | 45,358    | --                 | --                            |
| 1998                                       | 38,611               | 257                    | 0                             | 38,868    | --                 | --                            |
| 1999                                       | 33,885               | 188                    | 0                             | 34,073    | --                 | --                            |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                                       | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total     | Annual Requirement | Total Certificate Requirement |
|--|----------------------|------------------------|-------------------------------|-----------|--------------------|-------------------------------|
| <b>Northern Natural Div InterNorth Inc</b> |                      |                        |                               |           |                    |                               |
| 2000                                       | 30,140               | 127                    | 0                             | 30,267    | --                 | --                            |
| 2001                                       | 26,477               | 111                    | 0                             | 26,588    | --                 | --                            |
| 2002                                       | 23,727               | 84                     | 0                             | 23,811    | --                 | --                            |
| 2003                                       | 21,198               | 76                     | 0                             | 21,272    | --                 | --                            |
| 2004                                       | 18,947               | 67                     | 0                             | 19,014    | --                 | --                            |
| 2005                                       | 17,434               | 61                     | 0                             | 17,495    | --                 | --                            |
| 2006                                       | 16,071               | 54                     | 0                             | 16,125    | --                 | --                            |
| 2007                                       | 14,878               | 46                     | 0                             | 14,924    | --                 | --                            |
| 2008                                       | 13,004               | 41                     | 0                             | 13,045    | --                 | --                            |
| 2009                                       | 11,972               | 38                     | 0                             | 12,010    | --                 | --                            |
| Projected Total                            | 1,044,891            | 6,196                  | 481,426                       | 1,532,513 | 372,211            | 590,745                       |
| <b>Northwest Pipeline Corp</b>             |                      |                        |                               |           |                    |                               |
| 1990                                       | 48,815               | 0                      | 44,560                        | 93,375    | --                 | --                            |
| 1991                                       | 31,242               | 0                      | 44,560                        | 75,802    | --                 | --                            |
| 1992                                       | 21,676               | 0                      | 44,560                        | 66,236    | --                 | --                            |
| 1993                                       | 19,922               | 0                      | 44,560                        | 64,482    | --                 | --                            |
| 1994                                       | 18,342               | 0                      | 44,560                        | 62,902    | --                 | --                            |
| 1995                                       | 16,955               | 0                      | 44,560                        | 61,515    | --                 | --                            |
| 1996                                       | 15,705               | 0                      | 44,560                        | 60,265    | --                 | --                            |
| 1997                                       | 14,577               | 0                      | 44,560                        | 59,137    | --                 | --                            |
| 1998                                       | 13,556               | 0                      | 44,560                        | 58,116    | --                 | --                            |
| 1999                                       | 12,628               | 0                      | 44,560                        | 57,188    | --                 | --                            |
| 2000                                       | 11,783               | 0                      | 44,560                        | 56,343    | --                 | --                            |
| 2001                                       | 11,010               | 0                      | 44,560                        | 55,570    | --                 | --                            |
| 2002                                       | 10,303               | 0                      | 44,560                        | 54,863    | --                 | --                            |
| 2003                                       | 9,654                | 0                      | 44,560                        | 54,214    | --                 | --                            |
| 2004                                       | 9,057                | 0                      | 7,019                         | 16,076    | --                 | --                            |
| 2005                                       | 8,507                | 0                      | 0                             | 8,507     | --                 | --                            |
| 2006                                       | 7,999                | 0                      | 0                             | 7,999     | --                 | --                            |
| 2007                                       | 7,530                | 0                      | 0                             | 7,530     | --                 | --                            |
| 2008                                       | 7,095                | 0                      | 0                             | 7,095     | --                 | --                            |
| 2009                                       | 6,691                | 0                      | 0                             | 6,691     | --                 | --                            |
| Projected Total                            | 303,047              | 0                      | 630,859                       | 933,906   | 48,325             | 90,891                        |
| <b>Panhandle Eastern Pipe Line Co</b>      |                      |                        |                               |           |                    |                               |
| 1990                                       | 39,171               | 5,903                  | 95,334                        | 140,408   | --                 | --                            |
| 1991                                       | 36,934               | 7,261                  | 88,522                        | 132,717   | --                 | --                            |
| 1992                                       | 35,623               | 7,280                  | 88,027                        | 130,930   | --                 | --                            |
| 1993                                       | 30,267               | 7,261                  | 79,174                        | 116,702   | --                 | --                            |
| 1994                                       | 24,347               | 2,466                  | 63,928                        | 90,741    | --                 | --                            |
| 1995                                       | 20,233               | 0                      | 40,836                        | 61,069    | --                 | --                            |
| 1996                                       | 17,381               | 0                      | 20,030                        | 37,411    | --                 | --                            |
| 1997                                       | 15,273               | 0                      | 2,394                         | 17,667    | --                 | --                            |
| 1998                                       | 12,629               | 0                      | 483                           | 13,112    | --                 | --                            |
| 1999                                       | 10,748               | 0                      | 310                           | 11,058    | --                 | --                            |
| 2000                                       | 7,574                | 0                      | 256                           | 7,830     | --                 | --                            |
| 2001                                       | 6,671                | 0                      | 238                           | 6,909     | --                 | --                            |
| 2002                                       | 5,995                | 0                      | 89                            | 6,084     | --                 | --                            |
| 2003                                       | 5,400                | 0                      | 68                            | 5,468     | --                 | --                            |
| 2004                                       | 4,830                | 0                      | 59                            | 4,889     | --                 | --                            |
| 2005                                       | 4,394                | 0                      | 52                            | 4,446     | --                 | --                            |
| 2006                                       | 3,978                | 0                      | 45                            | 4,023     | --                 | --                            |
| 2007                                       | 3,700                | 0                      | 41                            | 3,741     | --                 | --                            |
| 2008                                       | 3,410                | 0                      | 36                            | 3,446     | --                 | --                            |
| 2009                                       | 3,060                | 0                      | 31                            | 3,091     | --                 | --                            |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                                  | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total   | Annual Requirement | Total Certificate Requirement |
|---------------------------------------|----------------------|------------------------|-------------------------------|---------|--------------------|-------------------------------|
| <b>Panhandle Eastern Pipe Line Co</b> |                      |                        |                               |         |                    |                               |
| Projected Total                       | 291,618              | 30,171                 | 479,953                       | 801,742 | 104,488            | 341,533                       |
| <b>Questar Pipeline Company</b>       |                      |                        |                               |         |                    |                               |
| 1990                                  | 40,826               | 6,913                  | 545                           | 48,284  | --                 | --                            |
| 1991                                  | 34,842               | 5,433                  | 545                           | 40,820  | --                 | --                            |
| 1992                                  | 29,951               | 4,311                  | 408                           | 34,670  | --                 | --                            |
| 1993                                  | 25,915               | 3,454                  | 0                             | 29,369  | --                 | --                            |
| 1994                                  | 22,562               | 2,797                  | 0                             | 25,359  | --                 | --                            |
| 1995                                  | 19,702               | 2,288                  | 0                             | 21,990  | --                 | --                            |
| 1996                                  | 17,120               | 1,885                  | 0                             | 19,005  | --                 | --                            |
| 1997                                  | 14,936               | 1,514                  | 0                             | 16,450  | --                 | --                            |
| 1998                                  | 13,145               | 1,276                  | 0                             | 14,421  | --                 | --                            |
| 1999                                  | 11,641               | 1,085                  | 0                             | 12,726  | --                 | --                            |
| 2000                                  | 10,320               | 930                    | 0                             | 11,250  | --                 | --                            |
| 2001                                  | 9,179                | 805                    | 0                             | 9,984   | --                 | --                            |
| 2002                                  | 8,159                | 700                    | 0                             | 8,859   | --                 | --                            |
| 2003                                  | 7,236                | 613                    | 0                             | 7,849   | --                 | --                            |
| 2004                                  | 6,481                | 541                    | 0                             | 7,022   | --                 | --                            |
| 2005                                  | 5,810                | 478                    | 0                             | 6,288   | --                 | --                            |
| 2006                                  | 5,222                | 425                    | 0                             | 5,647   | --                 | --                            |
| 2007                                  | 4,742                | 379                    | 0                             | 5,121   | --                 | --                            |
| 2008                                  | 4,192                | 338                    | 0                             | 4,530   | --                 | --                            |
| 2009                                  | 3,725                | 300                    | 0                             | 4,025   | --                 | --                            |
| Projected Total                       | 295,706              | 36,465                 | 1,498                         | 333,669 | 51,234             | 206,225                       |
| <b>Ringwood Gathering Co</b>          |                      |                        |                               |         |                    |                               |
| 1990                                  | 7,161                | 0                      | 0                             | 7,161   | --                 | --                            |
| 1991                                  | 6,176                | 0                      | 0                             | 6,176   | --                 | --                            |
| 1992                                  | 5,299                | 0                      | 0                             | 5,299   | --                 | --                            |
| 1993                                  | 4,476                | 0                      | 0                             | 4,476   | --                 | --                            |
| 1994                                  | 3,849                | 0                      | 0                             | 3,849   | --                 | --                            |
| 1995                                  | 3,222                | 0                      | 0                             | 3,222   | --                 | --                            |
| 1996                                  | 2,730                | 0                      | 0                             | 2,730   | --                 | --                            |
| 1997                                  | 2,291                | 0                      | 0                             | 2,291   | --                 | --                            |
| 1998                                  | 1,969                | 0                      | 0                             | 1,969   | --                 | --                            |
| 1999                                  | 1,683                | 0                      | 0                             | 1,683   | --                 | --                            |
| 2000                                  | 0                    | 0                      | 0                             | 0       | --                 | --                            |
| 2001                                  | 0                    | 0                      | 0                             | 0       | --                 | --                            |
| 2002                                  | 0                    | 0                      | 0                             | 0       | --                 | --                            |
| 2003                                  | 0                    | 0                      | 0                             | 0       | --                 | --                            |
| 2004                                  | 0                    | 0                      | 0                             | 0       | --                 | --                            |
| 2005                                  | 0                    | 0                      | 0                             | 0       | --                 | --                            |
| 2006                                  | 0                    | 0                      | 0                             | 0       | --                 | --                            |
| 2007                                  | 0                    | 0                      | 0                             | 0       | --                 | --                            |
| 2008                                  | 0                    | 0                      | 0                             | 0       | --                 | --                            |
| 2009                                  | 0                    | 0                      | 0                             | 0       | --                 | --                            |
| Projected Total                       | 38,856               | 0                      | 0                             | 38,856  | 0                  | 0                             |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                                      | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total     | Annual Requirement | Total Certificate Requirement |
|---|----------------------|------------------------|-------------------------------|-----------|--------------------|-------------------------------|
| <b>Sea Robin Pipeline Co</b>              |                      |                        |                               |           |                    |                               |
| 1990                                      | 27                   | 0                      | 0                             | 27        | --                 | --                            |
| 1991                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 1992                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 1993                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 1994                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 1995                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 1996                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 1997                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 1998                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 1999                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 2000                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 2001                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 2002                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 2003                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 2004                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 2005                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 2006                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 2007                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 2008                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| 2009                                      | 0                    | 0                      | 0                             | 0         | --                 | --                            |
| Projected Total                           | 27                   | 0                      | 0                             | 27        | 27                 | 81,613                        |
| <b>Southern Natural Gas Co</b>            |                      |                        |                               |           |                    |                               |
| 1990                                      | 249,459              | 0                      | 0                             | 249,459   | --                 | --                            |
| 1991                                      | 223,065              | 0                      | 0                             | 223,065   | --                 | --                            |
| 1992                                      | 176,793              | 0                      | 0                             | 176,793   | --                 | --                            |
| 1993                                      | 114,768              | 0                      | 0                             | 114,768   | --                 | --                            |
| 1994                                      | 76,271               | 0                      | 7,300                         | 83,571    | --                 | --                            |
| 1995                                      | 62,051               | 0                      | 7,300                         | 69,351    | --                 | --                            |
| 1996                                      | 45,947               | 0                      | 7,320                         | 53,267    | --                 | --                            |
| 1997                                      | 33,989               | 0                      | 7,300                         | 41,289    | --                 | --                            |
| 1998                                      | 22,759               | 0                      | 0                             | 22,759    | --                 | --                            |
| 1999                                      | 14,904               | 0                      | 0                             | 14,904    | --                 | --                            |
| 2000                                      | 11,416               | 0                      | 0                             | 11,416    | --                 | --                            |
| 2001                                      | 9,482                | 0                      | 0                             | 9,482     | --                 | --                            |
| 2002                                      | 8,557                | 0                      | 0                             | 8,557     | --                 | --                            |
| 2003                                      | 5,561                | 0                      | 0                             | 5,561     | --                 | --                            |
| 2004                                      | 2,250                | 0                      | 0                             | 2,250     | --                 | --                            |
| 2005                                      | 1,736                | 0                      | 0                             | 1,736     | --                 | --                            |
| 2006                                      | 1,399                | 0                      | 0                             | 1,399     | --                 | --                            |
| 2007                                      | 1,095                | 0                      | 0                             | 1,095     | --                 | --                            |
| 2008                                      | 7,297                | 0                      | 0                             | 7,297     | --                 | --                            |
| 2009                                      | 6,262                | 0                      | 0                             | 6,262     | --                 | --                            |
| Projected Total                           | 1,075,061            | 0                      | 29,220                        | 1,104,281 | 130,000            | 719,846                       |
| <b>Tennessee Gas Pipeline Div Tenneco</b> |                      |                        |                               |           |                    |                               |
| 1990                                      | 549,357              | 0                      | 86,067                        | 635,424   | --                 | --                            |
| 1991                                      | 406,712              | 0                      | 100,690                       | 507,402   | --                 | --                            |
| 1992                                      | 296,894              | 0                      | 100,521                       | 397,415   | --                 | --                            |
| 1993                                      | 218,754              | 0                      | 140,631                       | 359,385   | --                 | --                            |
| 1994                                      | 167,426              | 0                      | 140,324                       | 307,750   | --                 | --                            |
| 1995                                      | 130,825              | 0                      | 133,211                       | 264,036   | --                 | --                            |
| 1996                                      | 103,900              | 0                      | 122,813                       | 226,713   | --                 | --                            |
| 1997                                      | 81,029               | 0                      | 109,616                       | 190,645   | --                 | --                            |
| 1998                                      | 63,022               | 0                      | 78,155                        | 141,177   | --                 | --                            |
| 1999                                      | 50,480               | 0                      | 66,686                        | 117,166   | --                 | --                            |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                                      | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total     | Annual Requirement | Total Certificate Requirement |
|---|----------------------|------------------------|-------------------------------|-----------|--------------------|-------------------------------|
| <b>Tennessee Gas Pipeline Div Tenneco</b> |                      |                        |                               |           |                    |                               |
| 2000                                      | 41,008               | 0                      | 17,703                        | 58,711    | --                 | --                            |
| 2001                                      | 32,892               | 0                      | 16,316                        | 49,208    | --                 | --                            |
| 2002                                      | 25,055               | 0                      | 16,316                        | 41,371    | --                 | --                            |
| 2003                                      | 21,266               | 0                      | 16,316                        | 37,582    | --                 | --                            |
| 2004                                      | 17,890               | 0                      | 16,316                        | 34,206    | --                 | --                            |
| 2005                                      | 15,718               | 0                      | 16,316                        | 32,034    | --                 | --                            |
| 2006                                      | 12,311               | 0                      | 12,403                        | 24,736    | --                 | --                            |
| 2007                                      | 10,915               | 0                      | 0                             | 10,973    | --                 | --                            |
| 2008                                      | 9,272                | 0                      | 0                             | 9,272     | --                 | --                            |
| 2009                                      | 8,373                | 0                      | 0                             | 8,373     | --                 | --                            |
| Projected Total                           | 2,263,179            | 0                      | 1,190,400                     | 3,453,579 | 210,300            | 1,083,549                     |
| <b>Texas Eastern Transmission Corp</b>    |                      |                        |                               |           |                    |                               |
| 1990                                      | 693,278              | 0                      | 180,382                       | 873,660   | --                 | --                            |
| 1991                                      | 552,522              | 0                      | 118,906                       | 671,428   | --                 | --                            |
| 1992                                      | 458,744              | 0                      | 27,755                        | 486,499   | --                 | --                            |
| 1993                                      | 348,335              | 0                      | 27,656                        | 375,991   | --                 | --                            |
| 1994                                      | 266,227              | 0                      | 27,634                        | 293,861   | --                 | --                            |
| 1995                                      | 215,653              | 0                      | 27,613                        | 243,266   | --                 | --                            |
| 1996                                      | 171,545              | 0                      | 26,761                        | 198,306   | --                 | --                            |
| 1997                                      | 120,309              | 0                      | 20,985                        | 141,294   | --                 | --                            |
| 1998                                      | 87,819               | 0                      | 14,654                        | 102,473   | --                 | --                            |
| 1999                                      | 62,711               | 0                      | 0                             | 62,711    | --                 | --                            |
| 2000                                      | 43,607               | 0                      | 0                             | 43,607    | --                 | --                            |
| 2001                                      | 25,595               | 0                      | 0                             | 25,595    | --                 | --                            |
| 2002                                      | 12,005               | 0                      | 0                             | 12,005    | --                 | --                            |
| 2003                                      | 8,209                | 0                      | 0                             | 8,209     | --                 | --                            |
| 2004                                      | 5,075                | 0                      | 0                             | 5,075     | --                 | --                            |
| 2005                                      | 2,850                | 0                      | 0                             | 2,850     | --                 | --                            |
| 2006                                      | 2,155                | 0                      | 0                             | 2,155     | --                 | --                            |
| 2007                                      | 1,847                | 0                      | 0                             | 1,847     | --                 | --                            |
| 2008                                      | 1,595                | 0                      | 0                             | 1,595     | --                 | --                            |
| 2009                                      | 1,137                | 0                      | 0                             | 1,137     | --                 | --                            |
| Projected Total                           | 3,081,218            | 0                      | 472,346                       | 3,553,564 | 536,684            | 1,092,925                     |
| <b>Texas Gas Transmission Corp</b>        |                      |                        |                               |           |                    |                               |
| 1990                                      | 201,512              | 0                      | 75,908                        | 277,420   | --                 | --                            |
| 1991                                      | 181,153              | 0                      | 71,055                        | 252,208   | --                 | --                            |
| 1992                                      | 136,631              | 0                      | 66,543                        | 203,174   | --                 | --                            |
| 1993                                      | 101,977              | 0                      | 62,346                        | 164,323   | --                 | --                            |
| 1994                                      | 75,811               | 0                      | 56,442                        | 134,253   | --                 | --                            |
| 1995                                      | 49,890               | 0                      | 54,813                        | 104,703   | --                 | --                            |
| 1996                                      | 37,275               | 0                      | 51,437                        | 88,712    | --                 | --                            |
| 1997                                      | 32,509               | 0                      | 48,297                        | 80,806    | --                 | --                            |
| 1998                                      | 26,653               | 0                      | 45,377                        | 72,042    | --                 | --                            |
| 1999                                      | 17,787               | 0                      | 42,662                        | 60,449    | --                 | --                            |
| 2000                                      | 16,106               | 0                      | 40,137                        | 56,243    | --                 | --                            |
| 2001                                      | 14,061               | 0                      | 37,327                        | 51,388    | --                 | --                            |
| 2002                                      | 13,352               | 0                      | 34,714                        | 48,066    | --                 | --                            |
| 2003                                      | 12,679               | 0                      | 32,284                        | 44,963    | --                 | --                            |
| 2004                                      | 12,040               | 0                      | 30,025                        | 42,065    | --                 | --                            |
| 2005                                      | 11,433               | 0                      | 27,923                        | 39,356    | --                 | --                            |
| 2006                                      | 10,856               | 0                      | 25,968                        | 36,824    | --                 | --                            |
| 2007                                      | 10,309               | 0                      | 24,150                        | 34,459    | --                 | --                            |
| 2008                                      | 9,789                | 0                      | 22,459                        | 32,248    | --                 | --                            |
| 2009                                      | 9,205                | 0                      | 20,867                        | 30,072    | --                 | --                            |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                                       | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total     | Annual Requirement | Total Certificate Requirement |
|--|----------------------|------------------------|-------------------------------|-----------|--------------------|-------------------------------|
| <b>Texas Gas Transmission Corp</b>         |                      |                        |                               |           |                    |                               |
| Projected Total                            | 981,130              | 0                      | 872,754                       | 1,853,884 | 192,548            | 762,244                       |
| <b>Transcontinental Gas Pipe Line Corp</b> |                      |                        |                               |           |                    |                               |
| 1990                                       | 584,597              | 0                      | 14,739                        | 599,336   | --                 | --                            |
| 1991                                       | 456,298              | 0                      | 14,497                        | 470,795   | --                 | --                            |
| 1992                                       | 301,000              | 0                      | 13,448                        | 314,448   | --                 | --                            |
| 1993                                       | 213,696              | 0                      | 13,140                        | 226,836   | --                 | --                            |
| 1994                                       | 143,642              | 0                      | 13,140                        | 156,782   | --                 | --                            |
| 1995                                       | 80,991               | 0                      | 0                             | 80,991    | --                 | --                            |
| 1996                                       | 51,206               | 0                      | 0                             | 51,206    | --                 | --                            |
| 1997                                       | 40,284               | 0                      | 0                             | 40,284    | --                 | --                            |
| 1998                                       | 29,277               | 0                      | 0                             | 29,277    | --                 | --                            |
| 1999                                       | 19,279               | 0                      | 0                             | 19,279    | --                 | --                            |
| 2000                                       | 14,791               | 0                      | 0                             | 14,791    | --                 | --                            |
| 2001                                       | 11,133               | 0                      | 0                             | 11,133    | --                 | --                            |
| 2002                                       | 6,801                | 0                      | 0                             | 6,801     | --                 | --                            |
| 2003                                       | 4,542                | 0                      | 0                             | 4,542     | --                 | --                            |
| 2004                                       | 4,323                | 0                      | 0                             | 4,323     | --                 | --                            |
| 2005                                       | 3,117                | 0                      | 0                             | 3,117     | --                 | --                            |
| 2006                                       | 2,273                | 0                      | 0                             | 2,273     | --                 | --                            |
| 2007                                       | 2,257                | 0                      | 0                             | 2,257     | --                 | --                            |
| 2008                                       | 1,520                | 0                      | 0                             | 1,520     | --                 | --                            |
| 2009                                       | 1,058                | 0                      | 0                             | 1,058     | --                 | --                            |
| Projected Total                            | 1,972,080            | 0                      | 68,964                        | 2,041,049 | 250,000            | 1,127,424                     |
| <b>Transwestern Pipeline Co</b>            |                      |                        |                               |           |                    |                               |
| 1990                                       | 43,705               | 0                      | 0                             | 43,705    | --                 | --                            |
| 1991                                       | 43,705               | 0                      | 0                             | 43,705    | --                 | --                            |
| 1992                                       | 43,705               | 0                      | 0                             | 43,705    | --                 | --                            |
| 1993                                       | 43,705               | 0                      | 0                             | 43,705    | --                 | --                            |
| 1994                                       | 43,705               | 0                      | 0                             | 43,705    | --                 | --                            |
| 1995                                       | 43,705               | 0                      | 0                             | 43,705    | --                 | --                            |
| 1996                                       | 40,174               | 0                      | 0                             | 40,174    | --                 | --                            |
| 1997                                       | 32,757               | 0                      | 0                             | 32,757    | --                 | --                            |
| 1998                                       | 27,674               | 0                      | 0                             | 27,674    | --                 | --                            |
| 1999                                       | 22,545               | 0                      | 0                             | 22,545    | --                 | --                            |
| 2000                                       | 18,859               | 0                      | 0                             | 18,859    | --                 | --                            |
| 2001                                       | 16,282               | 0                      | 0                             | 16,282    | --                 | --                            |
| 2002                                       | 14,128               | 0                      | 0                             | 14,128    | --                 | --                            |
| 2003                                       | 12,177               | 0                      | 0                             | 12,177    | --                 | --                            |
| 2004                                       | 10,690               | 0                      | 0                             | 10,690    | --                 | --                            |
| 2005                                       | 9,272                | 0                      | 0                             | 9,272     | --                 | --                            |
| 2006                                       | 8,092                | 0                      | 0                             | 8,092     | --                 | --                            |
| 2007                                       | 7,182                | 0                      | 0                             | 7,182     | --                 | --                            |
| 2008                                       | 6,229                | 0                      | 0                             | 6,229     | --                 | --                            |
| 2009                                       | 3,972                | 0                      | 0                             | 3,972     | --                 | --                            |
| Projected Total                            | 492,263              | 0                      | 0                             | 492,263   | 43,705             | 0                             |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                           | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total   | Annual Requirement | Total Certificate Requirement |
|--------------------------------|----------------------|------------------------|-------------------------------|---------|--------------------|-------------------------------|
| <b>Trunkline Gas Co</b>        |                      |                        |                               |         |                    |                               |
| 1990                           | 144,036              | 0                      | 0                             | 144,086 | --                 | --                            |
| 1991                           | 120,191              | 0                      | 0                             | 120,191 | --                 | --                            |
| 1992                           | 118,975              | 0                      | 0                             | 118,975 | --                 | --                            |
| 1993                           | 87,318               | 0                      | 0                             | 87,318  | --                 | --                            |
| 1994                           | 43,440               | 0                      | 0                             | 43,440  | --                 | --                            |
| 1995                           | 26,122               | 0                      | 0                             | 26,122  | --                 | --                            |
| 1996                           | 17,030               | 0                      | 0                             | 17,030  | --                 | --                            |
| 1997                           | 8,322                | 0                      | 0                             | 8,322   | --                 | --                            |
| 1998                           | 1,488                | 0                      | 0                             | 1,488   | --                 | --                            |
| 1999                           | 930                  | 0                      | 0                             | 930     | --                 | --                            |
| 2000                           | 783                  | 0                      | 0                             | 783     | --                 | --                            |
| 2001                           | 754                  | 0                      | 0                             | 754     | --                 | --                            |
| 2002                           | 243                  | 0                      | 0                             | 243     | --                 | --                            |
| 2003                           | 185                  | 0                      | 0                             | 185     | --                 | --                            |
| 2004                           | 168                  | 0                      | 0                             | 168     | --                 | --                            |
| 2005                           | 152                  | 0                      | 0                             | 152     | --                 | --                            |
| 2006                           | 139                  | 0                      | 0                             | 139     | --                 | --                            |
| 2007                           | 127                  | 0                      | 0                             | 127     | --                 | --                            |
| 2008                           | 115                  | 0                      | 0                             | 115     | --                 | --                            |
| 2009                           | 106                  | 0                      | 0                             | 106     | --                 | --                            |
| Projected Total                | 570,674              | 0                      | 0                             | 570,674 | 102,643            | 265,927                       |
| <b>United Gas Pipe Line Co</b> |                      |                        |                               |         |                    |                               |
| 1990                           | 25,092               | 0                      | 13                            | 25,105  | --                 | --                            |
| 1991                           | 25,105               | 0                      | 0                             | 25,105  | --                 | --                            |
| 1992                           | 25,105               | 0                      | 0                             | 25,105  | --                 | --                            |
| 1993                           | 25,105               | 0                      | 0                             | 25,105  | --                 | --                            |
| 1994                           | 18,758               | 0                      | 0                             | 18,758  | --                 | --                            |
| 1995                           | 13,277               | 0                      | 0                             | 13,277  | --                 | --                            |
| 1996                           | 9,400                | 0                      | 0                             | 9,400   | --                 | --                            |
| 1997                           | 7,162                | 0                      | 0                             | 7,162   | --                 | --                            |
| 1998                           | 5,407                | 0                      | 0                             | 5,407   | --                 | --                            |
| 1999                           | 3,667                | 0                      | 0                             | 3,667   | --                 | --                            |
| 2000                           | 3,336                | 0                      | 0                             | 3,336   | --                 | --                            |
| 2001                           | 2,444                | 0                      | 0                             | 2,444   | --                 | --                            |
| 2002                           | 1,529                | 0                      | 0                             | 1,529   | --                 | --                            |
| 2003                           | 840                  | 0                      | 0                             | 840     | --                 | --                            |
| 2004                           | 572                  | 0                      | 0                             | 572     | --                 | --                            |
| 2005                           | 455                  | 0                      | 0                             | 455     | --                 | --                            |
| 2006                           | 359                  | 0                      | 0                             | 359     | --                 | --                            |
| 2007                           | 288                  | 0                      | 0                             | 288     | --                 | --                            |
| 2008                           | 230                  | 0                      | 0                             | 230     | --                 | --                            |
| 2009                           | 190                  | 0                      | 0                             | 190     | --                 | --                            |
| Projected Total                | 168,321              | 0                      | 13                            | 168,334 | 25,105             | 1,069,521                     |
| <b>Williams Natural Gas Co</b> |                      |                        |                               |         |                    |                               |
| 1990                           | 114,832              | 0                      | 2,566                         | 117,398 | --                 | --                            |
| 1991                           | 96,845               | 0                      | 2,566                         | 99,411  | --                 | --                            |
| 1992                           | 87,668               | 0                      | 1,820                         | 89,488  | --                 | --                            |
| 1993                           | 87,672               | 0                      | 1,815                         | 89,487  | --                 | --                            |
| 1994                           | 87,023               | 0                      | 1,815                         | 88,838  | --                 | --                            |
| 1995                           | 86,306               | 0                      | 1,815                         | 88,121  | --                 | --                            |
| 1996                           | 84,306               | 0                      | 1,820                         | 86,126  | --                 | --                            |
| 1997                           | 79,404               | 0                      | 1,815                         | 81,219  | --                 | --                            |
| 1998                           | 74,477               | 0                      | 1,815                         | 76,292  | --                 | --                            |
| 1999                           | 71,223               | 0                      | 1,815                         | 73,038  | --                 | --                            |

**Table 16. Deliverability Summaries: Estimated Annual Volumes (Continued)**  
(Million Cubic Feet)

| Year                                       | Owned and Contracted | Other Supply Contracts | Interstate Pipeline Purchases | Total     | Annual Requirement | Total Certificate Requirement |
|--|----------------------|------------------------|-------------------------------|-----------|--------------------|-------------------------------|
| <b>Williams Natural Gas Co</b>             |                      |                        |                               |           |                    |                               |
| 2000                                       | 65,827               | 0                      | 1,820                         | 67,647    | --                 | --                            |
| 2001                                       | 61,194               | 0                      | 1,815                         | 63,009    | --                 | --                            |
| 2002                                       | 56,93                | 0                      | 1,815                         | 58,750    | --                 | --                            |
| 2003                                       | 53,03                | 0                      | 354                           | 53,391    | --                 | --                            |
| 2004                                       | 49,578               | 0                      | 0                             | 49,578    | --                 | --                            |
| 2005                                       | 46,304               | 0                      | 0                             | 46,304    | --                 | --                            |
| 2006                                       | 43,182               | 0                      | 0                             | 43,182    | --                 | --                            |
| 2007                                       | 40,440               | 0                      | 0                             | 40,440    | --                 | --                            |
| 2008                                       | 37,991               | 0                      | 0                             | 37,991    | --                 | --                            |
| 2009                                       | 35,690               | 0                      | 0                             | 35,690    | --                 | --                            |
| Projected Total                            | 1,359,934            | 0                      | 25,466                        | 1,385,400 | 117,398            | 117,398                       |
| <b>Williston Basin Interstate Pipeline</b> |                      |                        |                               |           |                    |                               |
| 1990                                       | 21,452               | 0                      | 0                             | 21,452    | --                 | --                            |
| 1991                                       | 16,851               | 0                      | 0                             | 16,851    | --                 | --                            |
| 1992                                       | 13,287               | 0                      | 0                             | 13,287    | --                 | --                            |
| 1993                                       | 8,458                | 0                      | 0                             | 8,458     | --                 | --                            |
| 1994                                       | 5,035                | 0                      | 0                             | 5,035     | --                 | --                            |
| 1995                                       | 5,000                | 0                      | 0                             | 5,000     | --                 | --                            |
| 1996                                       | 4,780                | 0                      | 0                             | 4,780     | --                 | --                            |
| 1997                                       | 4,460                | 0                      | 0                             | 4,460     | --                 | --                            |
| 1998                                       | 4,260                | 0                      | 0                             | 4,260     | --                 | --                            |
| 1999                                       | 3,780                | 0                      | 0                             | 3,780     | --                 | --                            |
| 2000                                       | 3,360                | 0                      | 0                             | 3,360     | --                 | --                            |
| 2001                                       | 3,335                | 0                      | 0                             | 3,335     | --                 | --                            |
| 2002                                       | 2,950                | 0                      | 0                             | 2,950     | --                 | --                            |
| 2003                                       | 2,750                | 0                      | 0                             | 2,750     | --                 | --                            |
| 2004                                       | 2,680                | 0                      | 0                             | 2,680     | --                 | --                            |
| 2005                                       | 2,630                | 0                      | 0                             | 2,630     | --                 | --                            |
| 2006                                       | 2,580                | 0                      | 0                             | 2,580     | --                 | --                            |
| 2007                                       | 2,530                | 0                      | 0                             | 2,530     | --                 | --                            |
| 2008                                       | 2,490                | 0                      | 0                             | 2,490     | --                 | --                            |
| 2009                                       | 2,450                | 0                      | 0                             | 2,450     | --                 | --                            |
| Projected Total                            | 115,118              | 0                      | 0                             | 115,118   | 21,452             | 0                             |

-- = Not Applicable

Source: Energy Information Administration, FERC Form 15, "Interstate Pipeline's Annual Report of Gas Supply."

## Pipeline Imports

Interstate pipeline companies required to file Form 15 reported imports of natural gas into the United States of 778,904 million cubic feet from Canada during 1989. Imports from Mexico have been zero since 1985.

The remaining gas supply under contract between Form 15 respondents and Canadian firms increased by 38.9 percent, from 9.7 trillion cubic feet in 1988 to 13.4 trillion cubic feet in 1989. In comparison, the Mexican

gas supply remaining under contract decreased from 0.4 trillion cubic feet in 1988 to 0.3 trillion cubic feet in 1989 (Table 18).

The importation of natural gas from Canada continues to be an important part of the interstate pipeline companies' actions to procure supplemental supplies of natural gas to augment domestic gas supply.



*A thirty-inch pipeline under construction near Red Oak in eastern Oklahoma. Arkansas Louisiana Gas Co.*

**Table 18. Pipeline Imports**  
(Million Cubic Feet)

| Importing Company                   | 1988                  | 1989              |
|-------------------------------------|-----------------------|-------------------|
| <b>Canadian Gas</b>                 |                       |                   |
|                                     | Contracted Gas Supply |                   |
| ANR Pipeline Co                     | 33,450                | 88,200            |
| Boundary Gas Inc                    | 229,583               | 217,840           |
| Granite State Gas Transmission Inc  | 89,725                | 82,875            |
| Great Lakes Gas Transmission Co     | 222,910               | 118,014           |
| Inter-City Minnesota Pipelines Ltd  | 56,371                | 48,399            |
| Midwestern Gas Transmission Co      | 349,681               | 0                 |
| Natural Gas Pipeline Co of America  | 104,925               | 77,551            |
| Northern Natural Div InterNorth Inc | 20,457                | 154,487           |
| Northwest Alaskan Pipeline Co       | 6,130,800             | 5,459,200         |
| Northwest Pipeline Corp             | 37,088                | 630,859           |
| Pacific Gas Transmission Co         | 1,974,868             | 5,700,123         |
| Tennessee Gas Pipeline Div Tenneco  | 379,705               | 618,457           |
| Texas Eastern Transmission Corp     | 34,160                | 226,499           |
| <b>Total</b>                        | <b>9,663,723</b>      | <b>13,422,504</b> |
|                                     | Annual Imports        |                   |
| Boundary Gas Inc                    | 32,317                | 33,287            |
| Granite State Gas Transmission Inc  | 2,240                 | 6,872             |
| Great Lakes Gas Transmission Co     | 93,833                | 76,116            |
| Inter-City Minnesota Pipelines Ltd  | 4,211                 | 4,307             |
| Midwestern Gas Transmission Co      | 22,654                | 7,115             |
| Natural Gas Pipeline Co of America  | 26,096                | 25,865            |
| Northern Natural Div InterNorth Inc | 47,008                | 17,803            |
| Northwest Alaskan Pipeline Co       | 210,465               | 188,665           |
| Northwest Pipeline Corp             | 30,367                | 15,953            |
| Pacific Gas Transmission Co         | 381,953               | 383,260           |
| Tennessee Gas Pipeline Div Tenneco  | 18,524                | 5,185             |
| Texas Eastern Transmission Corp     | 18,164                | 14,476            |
| <b>Total</b>                        | <b>889,832</b>        | <b>778,904</b>    |
| <b>Mexican Gas</b>                  |                       |                   |
|                                     | Contracted Gas Supply |                   |
| Border Gas Inc                      | 352,922               | 287,547           |
| <b>Total</b>                        | <b>352,922</b>        | <b>287,547</b>    |
|                                     | Annual Imports        |                   |
| <b>Total</b>                        | <b>0</b>              | <b>0</b>          |

Source: Energy Information Administration, FERC Form 15, Interstate Pipeline's Annual Report of Gas Supply

# **Appendix A**

## **Summary of Data Collection Operations and Report Methodology**

## Appendix A

# Summary of Data Collection Operations and Report Methodology

Data for the *Gas Supplies of Interstate Natural Gas Pipeline Companies 1989*, are based on the FERC Form 15, "Interstate Pipelines' Annual Report of Gas Supply." This form is filed annually on April 1 of the year following the report year.

place erroneous data submitted initially. The final response rate was 100 percent.

Respondents may file on magnetic tape provided that a printout reasonably conforming in format to the Form 15 is also filed. All major companies submitted their 1989 data on magnetic tape or other electronic media.

## Survey Design

The survey was implemented in 1963 by the FPC. The FERC assumed jurisdictional authority for the survey on October 1, 1977, as a result of the Department of Energy Organization Act; and simultaneously the EIA was given the responsibility for the collection, processing, and publication of the data gathered by the survey.

The survey universe varies slightly from year to year. The FERC required 74 interstate pipeline companies to file Form 15 in 1990 for report year 1989. On December 15, 1989, the Reserves and Natural Gas Division of the Office of Oil and Gas, EIA, mailed report year 1989 forms to all respondents identified by the FERC. Completed forms and machine-readable submissions were returned to the Reserves and Natural Gas Division where they were processed.

## Response Statistics

Data for the report year 1989 were due April 1, 1990. The response rate as of April 13, 1990, was approximately 86 percent. Extensions of up to 30 days are generally granted upon receipt of a formal written request provided the respondent is not currently involved in FERC hearings.

Approximately 2 percent of the respondents submitted an amended Form 15 to correct major reporting errors. An additional 2 percent resubmitted partial data to re-

## Summary of Data Reporting Requirements

The FERC Form 15 (see Figure A1) is a multipage form consisting of seven major parts. Additionally, as part of the filing requirement, each company is required to submit a general map covering the producing areas traversed by the pipeline system and a map for each field unless previously submitted. The major parts of the form include an Identification Schedule, Synopsis of Gas Supply, Disclosure of Other Gas Supply Filings with Federal Agencies, Gas Procurement Activity Statement, Schedule I, Schedule II, and Footnote Data. Companies that have year-end remaining recoverable reserves of more than 50 billion cubic feet of company-owned and independent producer contract reserves are required to complete the entire form and provide the specified maps. The remaining respondents are required to file only the Identification Schedule, the Synopsis of Gas Supply, and Schedule II. Companies that act as transporters only are required to file a statement providing the names and addresses of the company or companies for which gas is transported.

The data provided in this report are derived from the Synopsis of Gas Supply, Schedule I, and Schedule II. The Synopsis of Gas Supply and the Schedule I contain summary level reserves and production data reflective of the detail information contained in Schedule II. The Synopsis of Gas Supply and the Schedule I consist of a single page for each. All volumes reported on these

two forms are on a dry basis at 14.73 psia and 60 degrees Fahrenheit.

Each source of supply is reported in Schedule II. The Schedule II format allows a maximum of five sources to be reported on each page, therefore Schedule II submissions may vary from one page to many.

## Data Quality Assurance Procedures

Individual company reports were initially reviewed by analysts to check for correct reporting procedures, proper format, correct company identification, and data consistency between the Synopsis of Gas Supply, Schedule I, and, for small companies, Schedule II. Data completeness and intraschedule consistency checking were also performed. Errors were detected in 44 percent of the submissions during this review phase. Each respondent whose submission contained an error was contacted by telephone and informed of the error and instructed on the correct filing procedure. If corrections were determined to be extensive, the respondent was asked to prepare and submit an

amended Form 15 or the portions thereof which were in error.

Following conclusion of the manual review phase, edits were performed to insure that gas supply sources were properly identified and that mathematical calculations were correct and consistent within and between schedules. Errors were detected in 74 percent of the submissions during the automated editing phase of form review. Respondents whose filings were found to contain errors were telephoned for problem resolution.

## Comparison of the Form 15 with Other Data Sources

The Form 15 data on imports from Canada and Mexico (Table 18) were compared with data collected on the FPC Form 14 and published in the *Natural Gas Monthly*.<sup>3</sup> There are differences between the reports due to the fact that the Form 15 is submitted earlier than the FPC-14, and the FERC-15 reports estimated volumes while the FPC-14 is filed later and reports the final volumes.

<sup>3</sup>Energy Information Administration, "U.S. Imports and Exports of Natural Gas, 1989," *Natural Gas Monthly*, June 1990, DOE/EIA-0130(90/06), (Washington, D.C. August 1990).

**FERC FORM NO. 15: INTERSTATE PIPELINE'S ANNUAL REPORT OF GAS SUPPLY**

| Identification Schedule   |                  |                                    |                              |
|---|------------------|------------------------------------|------------------------------|
| IDENTIFICATION  |                  |                                    |                              |
| 1. Exact Legal Name of Respondent (Company)   | 2. Company Code  | 3. Report Year                     | 19 <input type="text"/>      |
| 4. Address of Principal Business Office at End of Report Year (Street, City, State, Zip Code)   |                  |                                    |                              |
| 5. Name of Contact Person   |                  | 6. Title of Contact Person         |                              |
| 7. Address of Contact Person (Street, City, State, Zip Code)  |                  |                                    |                              |
| 8. Telephone of Contact Person (Including Area Code)  |                  | 9. Date of Submission (Mo, Da, Yr) |                              |
|   |                  | Mo                                 | Da                           |
|   |                  | Yr                                 |                              |
| 10. What is the total number of pages submitted for each schedule?  |                  |                                    |                              |
| Schedule (01)   | Page Number (02) | Total Number of Pages (03)         |                              |
| (1) Synopsis of Gas Supply  | 0002             |                                    |                              |
| (2) Disclosure of Other Gas Supply Filings with Federal Agencies  | 0003             |                                    |                              |
| (3) Gas Procurement Activity Statement  | 0004             |                                    |                              |
| (4) Schedule I: System Deliverability Summary   |                  |                                    |                              |
| (5) Schedule II: Committed Reserves and Deliverability Estimates for All Supply Sources   |                  |                                    |                              |
| (6) Footnote Data   |                  |                                    |                              |
| (7) Pipeline System Maps (See instructions)   |                  |                                    |                              |
| CERTIFICATION   |                  |                                    |                              |
| The undersigned certifies that he/she has examined the Synopsis of Gas Supply and the accompanying report; that to the best of his/her knowledge, information and belief, all statements of fact contained in said report are true and the said report is a correct statement of the gas supply of the above-named respondent in respect to each and every matter set forth therein during the period from and including January 1 to and including December 31 of the report year. |                  |                                    |                              |
| 11. Name  | 12. Title        | 13. Signature                      | 14. Date Signed (Mo, Da, Yr) |
| Title 16, U.S.C. 1001, makes it a crime for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.   |                  |                                    |                              |

**FERC FORM NO. 15: INTERSTATE PIPELINE'S ANNUAL REPORT OF GAS SUPPLY**

**Synopsis of Gas Supply**

| 000 | Company Code | Company Name (35)  | Report Year<br>19 <input type="text"/> | Date of Submission (Mo., Da., Yr) | Footnote Made For This Page<br><input type="checkbox"/> Yes |
|-----|--------------|--|--|-----------------------------------|---|
| 01  |              | Enter the class of Natural Gas Company, as defined in the "Uniform System of Accounts for Natural Gas Companies."<br><i>(See Sources for Codes Used in the instructions)</i>                         |  |                                   |   |
| 02  |              | Enter the estimated total volume of remaining salable gas supply at the end of the current report year. <i>(See definition of Gas Supply)</i>  |  |                                   | <i>(Enter volume)</i>                                       |
| 03  |              | Enter the total new reserve additions that are reported for the first time in the current report year. <i>(See definition of Reserve Additions)</i>  |  |                                   |   |
| 04  |              | Enter the total new reserve additions acquired through new gas purchase contracts with independent producers during the current report year. <i>(See definition of Producer Contracted Reserves)</i> |  |                                   |   |
| 05  |              | Enter the total revisions (increases or decreases) to the previous reserve estimates made during the current report year. <i>(See definition of Revisions)</i>                                       |  |                                   | + / -   |
| 06  |              | Enter the total volume of company owned recoverable gas in underground storage facilities at the end of the current report year. <i>(See definitions of Owned Reserves and Underground Storage)</i>  |  |                                   |   |
| 07  |              | Enter the gas balance due from exchange agreements (positive or negative) at the end of the current report year. <i>(See definition of Exchange Agreements)</i>                                      |  |                                   | + / -   |

**FERC FORM NO. 15: INTERSTATE PIPELINE'S ANNUAL REPORT OF GAS SUPPLY**  
**Disclosure of Other Gas Supply Filings with Federal Agencies**

|   |   |                                 |   |  |   |   |
|---|---|---------------------------------|---|--|---|---|
| Company Code  |   | Company Name (35)               |   | Report Year<br>19 <input type="checkbox"/>                   | Date of Submission (Mo, Da, Yr)<br><input type="checkbox"/> | Footnote Made For This Page<br><input type="checkbox"/> Yes |
| <p><i>Identify below any public filings concerning the pipeline respondent's total system gas supplies made with other Federal Governmental Agencies by the respondent, its parent or affiliate, after the April 1 filing of the respondent's FERC Form No. 15 for the preceding year</i></p> |   |                                 |   |  |   |   |
| Line No.  | Name of Filing Party (Enter full name) (01) | Name and/or Date of Report (02) | Formal Name of Recipient Government Agency (03) | Reconciliation of Any Gas Reserve Differences (Explain) (04) |   |   |
| 01  |   |                                 |   |  |   |   |
| 02  |   |                                 |   |  |   |   |
| 03  |   |                                 |   |  |   |   |
| 04  |   |                                 |   |  |   |   |
| 05  |   |                                 |   |  |   |   |
| 06  |   |                                 |   |  |   |   |
| 07  |   |                                 |   |  |   |   |
| 08  |   |                                 |   |  |   |   |
| 09  |   |                                 |   |  |   |   |
| 10  |   |                                 |   |  |   |   |
| 11  |   |                                 |   |  |   |   |
| 12  |   |                                 |   |  |   |   |
| 13  |   |                                 |   |  |   |   |
| 14  |   |                                 |   |  |   |   |
| 15  |   |                                 |   |  |   |   |
| 16  |   |                                 |   |  |   |   |
| 17  |   |                                 |   |  |   |   |
| 18  |   |                                 |   |  |   |   |
| 19  |   |                                 |   |  |   |   |
| 20  |   |                                 |   |  |   |   |
| 21  |   |                                 |   |  |   |   |
| 22  |   |                                 |   |  |   |   |
| 23  |   |                                 |   |  |   |   |
| 24  |   |                                 |   |  |   |   |
| 25  |   |                                 |   |  |   |   |
| 26  |   |                                 |   |  |   |   |
| 27  |   |                                 |   |  |   |   |
| 28  |   |                                 |   |  |   |   |
| 29  |   |                                 |   |  |   |   |

**FERC FORM NO. 15: INTERSTATE PIPELINE'S ANNUAL REPORT OF GAS SUPPLY  
Gas Procurement Activity Statement**

| Company Code | Company Name (35)   | Report Year<br>19 <input type="text"/> | Date of Submission (Mo, Da, Yr) | Footnote Made For This Page<br><input type="checkbox"/> Yes |
|--------------|---|--|---------------------------------|---|
| Line No.     | Provide a general statement of the company's gas procurement activity. Identify and include a description of any anticipated future supply additions from pending certificates. Include a general statement concerning current contract negotiations; producer option agreement; advance payment agreements; negotiations with foreign suppliers; construction of facilities to produce, or contracts for, supplies of LNG, SNG, or coal gas; or any other activities to add gas supplies. Also include a statement of the status of exploration and development activity in, or near, the general producing areas traversed by or available to the pipeline system to provide information to be relied upon by respondent with respect to applications for certificates under Section 7(c) of the Natural Gas Act. |  |                                 |   |
| 01           |   |  |                                 |   |
| 02           |   |  |                                 |   |
| 03           |   |  |                                 |   |
| 04           |   |  |                                 |   |
| 05           |   |  |                                 |   |
| 06           |   |  |                                 |   |
| 07           |   |  |                                 |   |
| 08           |   |  |                                 |   |
| 09           |   |  |                                 |   |
| 10           |   |  |                                 |   |
| 11           |   |  |                                 |   |
| 12           |   |  |                                 |   |
| 13           |   |  |                                 |   |
| 14           |   |  |                                 |   |
| 15           |   |  |                                 |   |
| 16           |   |  |                                 |   |
| 17           |   |  |                                 |   |
| 18           |   |  |                                 |   |
| 19           |   |  |                                 |   |
| 20           |   |  |                                 |   |
| 21           |   |  |                                 |   |
| 22           |   |  |                                 |   |
| 23           |   |  |                                 |   |
| 24           |   |  |                                 |   |
| 25           |   |  |                                 |   |
| 26           |   |  |                                 |   |
| 27           |   |  |                                 |   |
| 28           |   |  |                                 |   |
| 29           |   |  |                                 |   |
| 30           |   |  |                                 |   |
| 31           |   |  |                                 |   |
| 32           |   |  |                                 |   |
| 33           |   |  |                                 |   |
| 34           |   |  |                                 |   |

**FERC FORM NO. 15: INTERSTATE PIPELINE'S ANNUAL REPORT OF GAS SUPPLY**  
**Schedule I**

**System Deliverability Summary**  
*(See the Instructions for the filing requirements of this Schedule.)*

|                                 |  |  |  |  |   |  |  |  |
|---------------------------------|--|--|--|--|---|--|--|--|
| 100                             | Company Code   | Company Name (35)                          | Report Year<br>19 <input type="text"/> | Date of Submission (Mo, Da, Yr)                                    | Footnote Made For This Page<br><input type="checkbox"/> Yes |  |  |  |
| <b>CURRENT GAS SUPPLY</b>       |  |  |  |  |   |  |  |  |
| Line No                         | Item (00)  | Owned (10)<br>(01)                         | Producer Contracted (10)<br>(02)       | Other Supply Contracts (10)<br>(03)                                | Interstate Pipeline Purchases (10)<br>(04)                  | Total (10)<br>(Enter total of 01, 02, 03 and 04)<br>(05) |  |  |
| 101                             | Reserves & Other Supply  |  |  |  |   |  |  |  |
| 102                             | Volume Purchased and/or Produced   |  |  |  |   |  |  |  |
| <b>DELIVERABILITY FORECAST</b>  |  |  |  |  |   |  |  |  |
| Annual Volume Scheduled         |  |  |  |  |   |  |  |  |
| Line No                         | Projected Year (00)  | Owned and Producer Contracted (10)<br>(01) | Other Supply Contracts (10)<br>(02)    | Interstate Pipeline Purchases (10)<br>(03)                         | Total (10)<br>(Enter total of 01, 02, and 03)<br>(04)       | Annual Requirement (10)<br>(05)                          |  |  |
| 103                             |  |  |  |  |   |  |  |  |
| 104                             |  |  |  |  |   |  |  |  |
| 105                             |  |  |  |  |   |  |  |  |
| 106                             |  |  |  |  |   |  |  |  |
| 107                             |  |  |  |  |   |  |  |  |
| 108                             |  |  |  |  |   |  |  |  |
| 109                             |  |  |  |  |   |  |  |  |
| 110                             |  |  |  |  |   |  |  |  |
| 111                             |  |  |  |  |   |  |  |  |
| 112                             |  |  |  |  |   |  |  |  |
| 113                             |  |  |  |  |   |  |  |  |
| 114                             |  |  |  |  |   |  |  |  |
| 115                             |  |  |  |  |   |  |  |  |
| 116                             |  |  |  |  |   |  |  |  |
| 117                             |  |  |  |  |   |  |  |  |
| 118                             |  |  |  |  |   |  |  |  |
| 119                             |  |  |  |  |   |  |  |  |
| 120                             |  |  |  |  |   |  |  |  |
| 121                             |  |  |  |  |   |  |  |  |
| 122                             |  |  |  |  |   |  |  |  |
| 123                             | TOTAL  |  |  |  |   |  |  |  |
| <b>TOTAL REMAINING RESERVES</b> |  |  |  |  |   |  |  |  |
| 124                             | Enter the result of the total of line 101, columns 01, 02 minus line 123, column 01.<br>!(01 + 02) - 01! |  | 125                                    | Enter the result of line 101, column 03 minus line 123, column 02. |   | 127  | Enter the result of line 101, column 05 minus line 123, column 04. |  |

**FERC FORM NO. 15: INTERSTATE PIPELINE'S ANNUAL REPORT OF GAS SUPPLY**

**Schedule II**

**Committed Reserves and Deliverability Estimates For All Supply Sources**

(See the Instructions for filing requirements of this schedule. If more space is needed, use copies of this schedule. Note how Columns A through E of lines 206 to 226 correspond to lines 201 to 205.)

|     |              |                   |             |                                 |                              |
|-----|--------------|-------------------|-------------|---------------------------------|------------------------------|
| 200 | Company Code | Company Name (35) | Report Year | Date of Submission (Mo, Da, Yr) | Footnote Made For This Page  |
|     |              |                   | 19          |                                 | <input type="checkbox"/> Yes |

| Line No. (00) | Column Alpha (00) | Group (or Field) |           |           | Supply Code |           |  | State Abb. (06) | Code (07) | County/Parish Name (16) (08) | Pipeline (or Seller) Name (26) (09) |
|---------------|-------------------|------------------|-----------|-----------|-------------|-----------|--|-----------------|-----------|------------------------------|-------------------------------------|
|               |                   | Name (26) (02)   | Code (01) | Type (03) | Class (04)  | Term (05) |  |                 |           |                              |                                     |
| 201           | A                 |                  |           |           |             |           |  |                 |           |                              |                                     |
| 202           | B                 |                  |           |           |             |           |  |                 |           |                              |                                     |
| 203           | C                 |                  |           |           |             |           |  |                 |           |                              |                                     |
| 204           | D                 |                  |           |           |             |           |  |                 |           |                              |                                     |
| 205           | E                 |                  |           |           |             |           |  |                 |           |                              |                                     |

| Line No. (00) | Column A (for line 201) (02)                                      | Column B (for line 202) (03) | Column C (for line 203) (04) | Column D (for line 204) (05) | Column E (for line 205) (06) |
|---------------|---|------------------------------|------------------------------|------------------------------|------------------------------|
| 206           | Reserves (Enter in MMCF) (01)                                     |                              |                              |                              |                              |
| 207           | Are lines 207 to 209 on a dedicated basis only? (Enter yes or no) |                              |                              |                              |                              |
| 208           | Initial Recoverable Wet Gas                                       |                              |                              |                              |                              |
| 209           | Cumulative Wet Gas Production                                     |                              |                              |                              |                              |
| 210           | Remaining Recoverable Wet Gas                                     |                              |                              |                              |                              |
| 211           | Fuel and Shrinkage Factor   |                              |                              |                              |                              |
| 212           | Owned and Contracted Remaining Dry Gas                            |                              |                              |                              |                              |
| 213           | Owned and Contracted Report Year Dry Gas Production/Purchases     |                              |                              |                              |                              |
| 214           | Approximate Heating Value (In Btu)                                |                              |                              |                              |                              |
| 215           | Company Owned Remaining Dry Gas                                   |                              |                              |                              |                              |
| 216           | Company Owned Report Year Dry Gas Production                      |                              |                              |                              |                              |
| 217           | Additions During Report Year                                      |                              |                              |                              |                              |
| 218           | Net Revisions During Report Year                                  |                              |                              |                              |                              |
| 219           | Owned and Contracted Remaining Nonassociated Dry Gas              |                              |                              |                              |                              |
| 220           | Total Number of Reservoirs  |                              |                              |                              |                              |
| 221           | Number of Nonproducing Reservoirs                                 |                              |                              |                              |                              |
| 222           | Remaining Total Dry Gas In Nonproducing Reservoirs                |                              |                              |                              |                              |
| 223           | Estimated Annual Scheduled Volume - First Year                    |                              |                              |                              |                              |
| 224           | Estimated Annual Scheduled Volume - Second Year                   |                              |                              |                              |                              |
| 225           | Estimated Annual Scheduled Volume - Third Year                    |                              |                              |                              |                              |
| 226           | Estimated Annual Scheduled Volume - Fourth Year                   |                              |                              |                              |                              |
|               | Estimated Annual Scheduled Volume - Fifth Year                    |                              |                              |                              |                              |

**FERC FORM NO. 15: INTERSTATE PIPELINE'S ANNUAL REPORT OF GAS SUPPLY**  
**Footnote Data**

*(Refer to Specific Instructions before completing this schedule. If more space is needed, use copies of this schedule.)*

| Company Code |                  | Company Name (35)              |                                     | Report Year         | Date of Submission (Mo, Da, Yr) |                    |                       |
|--------------|------------------|--------------------------------|-------------------------------------|---------------------|---------------------------------|--------------------|-----------------------|
| Line No.     | Page Number (01) | Supplemental Sheet Number (02) | Data Reference No.<br>Line No. (03) | Classification (05) | Footnote Sequence Number (07)   | Footnote Code (08) | Footnote Message (09) |
| 01           |                  |                                |                                     |                     |                                 |                    |                       |
| 02           |                  |                                |                                     |                     |                                 |                    |                       |
| 03           |                  |                                |                                     |                     |                                 |                    |                       |
| 04           |                  |                                |                                     |                     |                                 |                    |                       |
| 05           |                  |                                |                                     |                     |                                 |                    |                       |
| 06           |                  |                                |                                     |                     |                                 |                    |                       |
| 07           |                  |                                |                                     |                     |                                 |                    |                       |
| 08           |                  |                                |                                     |                     |                                 |                    |                       |
| 09           |                  |                                |                                     |                     |                                 |                    |                       |
| 10           |                  |                                |                                     |                     |                                 |                    |                       |
| 11           |                  |                                |                                     |                     |                                 |                    |                       |
| 12           |                  |                                |                                     |                     |                                 |                    |                       |
| 13           |                  |                                |                                     |                     |                                 |                    |                       |
| 14           |                  |                                |                                     |                     |                                 |                    |                       |
| 15           |                  |                                |                                     |                     |                                 |                    |                       |
| 16           |                  |                                |                                     |                     |                                 |                    |                       |
| 17           |                  |                                |                                     |                     |                                 |                    |                       |
| 18           |                  |                                |                                     |                     |                                 |                    |                       |
| 19           |                  |                                |                                     |                     |                                 |                    |                       |
| 20           |                  |                                |                                     |                     |                                 |                    |                       |
| 21           |                  |                                |                                     |                     |                                 |                    |                       |
| 22           |                  |                                |                                     |                     |                                 |                    |                       |
| 23           |                  |                                |                                     |                     |                                 |                    |                       |
| 24           |                  |                                |                                     |                     |                                 |                    |                       |
| 25           |                  |                                |                                     |                     |                                 |                    |                       |
| 26           |                  |                                |                                     |                     |                                 |                    |                       |
| 27           |                  |                                |                                     |                     |                                 |                    |                       |
| 28           |                  |                                |                                     |                     |                                 |                    |                       |
| 29           |                  |                                |                                     |                     |                                 |                    |                       |
| 30           |                  |                                |                                     |                     |                                 |                    |                       |
| 31           |                  |                                |                                     |                     |                                 |                    |                       |
| 32           |                  |                                |                                     |                     |                                 |                    |                       |
| 33           |                  |                                |                                     |                     |                                 |                    |                       |
| 34           |                  |                                |                                     |                     |                                 |                    |                       |

# **Appendix B**

## **Index of Jurisdictional Companies**

## Appendix B

# Index of Jurisdictional Companies

Appendix B is an index of interstate pipeline companies subject to the jurisdiction of the FERC under the Natural Gas Act that were required to file the 1989 annual report of gas supply in accordance with the requirements of Section 260.7 of the regulations of the FERC (18 CFR 260.7). Natural gas pipeline companies that have year-end remaining recoverable reserves of more

than 50 billion cubic feet of company-owned and independent producer contract reserves, at 14.73 psia and 60 degrees Fahrenheit, are required to complete the entire Form 15 in accordance with Part IV of "General Information" of the "General Instructions." The 34 companies meeting this criterion are as follows:

ANR Pipeline Company  
Arkla Incorporated  
Carnegie Natural Gas Company  
CNG Transmission Corporation  
Colorado Interstate Gas Company  
Columbia Gas Transmission Corporation  
El Paso Natural Gas Company  
Equitrans Incorporated  
Florida Gas Transmission Company  
Kentucky West Virginia Gas Company  
K N Energy Incorporated  
Lone Star Gas Company Division Enserch Corporation  
Louisiana-Nevada Transit Company<sup>4</sup>  
Mid Louisiana Gas Company  
Mississippi River Transmission Corporation  
National Fuel Gas Supply Corporation  
Natural Gas Pipeline Company of America

Northern Natural Division InterNorth Incorporated  
Northwest Pipeline Corporation  
Panhandle Eastern Pipe Line Company  
Questar Pipeline Company  
Ringwood Gathering Company  
Sea Robin Pipeline Company  
Southern Natural Gas Company  
Tennessee Gas Pipeline Division Tenneco  
Texas Eastern Transmission Corporation  
Texas Gas Transmission Corporation  
Transcontinental Gas Pipe Line Corporation  
Transwestern Pipeline Company  
Trunkline Gas Company  
United Gas Pipe Line Company  
Valero Interstate Transmission Company<sup>4</sup>  
Williams Natural Gas Company  
Williston Basin Interstate Pipeline

<sup>4</sup>Did not file schedule I data for 1989.

Natural gas pipeline companies subject to the provisions noted at the beginning of this appendix having year-end remaining, recoverable, salable reserves consisting of 50 billion cubic feet or less of company-owned and independent producer contract reserves at 14.73 psia and 60 degrees Fahrenheit or which purchase their entire supply of gas from another interstate pipeline

Alabama-Tennessee Natural Gas Company  
Algonquin Gas Transmission Company<sup>5</sup>  
Arkansas Oklahoma Gas Corporation  
Associated Natural Gas Company<sup>5</sup>  
Bayou Interstate Pipeline System  
Bluefield Gas Company<sup>5</sup>  
Border Gas Incorporated<sup>5</sup>  
Boundary Gas Incorporated<sup>5</sup>  
Caprock Pipeline Company  
East Tennessee Natural Gas Company  
Eastern Shore Natural Gas Company  
Gas Transport Incorporated  
Glacier Gas Company<sup>5</sup>  
Granite State Gas Transmission Incorporated<sup>5</sup>  
Great Lakes Gas Transmission Company<sup>5</sup>  
Great Plains Natural Gas Company<sup>5</sup>  
Indiana Utilities Corporation<sup>5</sup>  
Inland Gas Company Incorporated  
Inter-City Minnesota Pipelines Limited<sup>5</sup>  
International Paper Company

company, foreign supplier, or supplemental gas source, complete only the Identification Schedule (page 0001), the Synopsis of Gas Supply (page 0002), and Schedule II of Form 15 in accordance with Part IV of "General Information" of the "General Instructions." The companies meeting these criteria are:

Iowa-Illinois Gas & Electric Company<sup>5</sup>  
Michigan Gas Storage Company  
Midwestern Gas Transmission Company  
MIGC, Incorporated  
North Penn Gas Company  
Northwest Alaskan Pipeline Company<sup>5</sup>  
Ohio River Pipeline Corporation<sup>5</sup>  
Orange and Rockland Utilities Incorporated  
Pacific Gas Transmission Company  
Pacific Interstate Offshore Company  
Pacific Interstate Transmission Company  
Pacific Offshore Pipeline Company  
Pennsylvania & Southern Gas Company  
Raton Gas Transmission Co Inc<sup>5</sup>  
South Georgia Natural Gas Company<sup>5</sup>  
Texas Gas Pipeline Corporation  
Viking Gas Transmission Company  
Washington Gas Light Company  
Western Gas Interstate Company  
Zenith Natural Gas Company

<sup>5</sup>Purchased their entire 1989 gas supply from other interstate pipeline companies or foreign suppliers.

Transporters of natural gas are exempt from filing Form 15; however, they are required by the FERC to file a letter, in lieu of the form, listing the name and

Canyon Creek Compression Company

Moraine Pipeline Company

Northern Border Pipeline Company

Pelican Interstate Pipeline System

Sabine Pipeline Company

address of each company for which they transported gas during the report year. Letters were received from the following companies:

Stingray Pipeline Company

Trailblazer Pipeline Company

Union Light, Heat & Power Company

Valley Gas Transmissions Inc

Western Transmission Corporation

Wyoming Interstate Company, Ltd

# **Appendix C**

## **State Subdivisions**

## Appendix C

# State Subdivisions

### Louisiana

#### Northern Louisiana

All of Louisiana north of the 31st parallel including these counties:

|              |              |              |
|--------------|--------------|--------------|
| Axoyelles    | Franklin     | Rapides      |
| Bienville    | Grant        | Red River    |
| Bossier      | Jackson      | Richland     |
| Caddo        | La Salle     | Sabine       |
| Caldwell     | Lincoln      | Tensas       |
| Catahoula    | Madison      | Union        |
| Claborne     | Morehouse    | Vernon       |
| Concordia    | Natchitoches | Webster      |
| De soto      | Ouachita     | West Carroll |
| East Carroll | Poite Coupee | Winn         |

#### Southern Louisiana

##### Southern Louisiana - Onshore

Includes all of Louisiana south of the 31st parallel including all or part of the following counties:

|                  |                 |                      |
|------------------|-----------------|----------------------|
| Acadia           | Iberville       | St. James            |
| Allen            | Jefferson       | St. John the Baptist |
| Ascension        | Jefferson Davis | St. Landry           |
| Assumption       | Lafayette       | St. Martin           |
| Axoyelles        | La Fourche      | St. Mary             |
| Beauregard       | Livingston      | St. Tammany          |
| Calcasieu        | Orleans         | Tangipahoa           |
| Cameron          | Plaquemines     | Terrebonne           |
| Concordia        | Poite Coupee    | Vermilion            |
| East Baton Rouge | Rapides         | Vernon               |
| East Feliciana   | St. Bernard     | Washington           |
| Evangeline       | St. Charles     | West Baton Rouge     |
| Iberia           | St. Helena      | West Feliciana       |

##### Southern Louisiana - Offshore

Federal - Offshore

State - Offshore

General - Offshore

### New Mexico

#### New Mexico - Permian Basin Area

|        |      |     |
|--------|------|-----|
| Chaves | Eddy | Lea |
|--------|------|-----|

#### New Mexico - San Juan Basin Area

|          |            |          |
|----------|------------|----------|
| McKinley | Rio Arriba | Sandoval |
|          |            | San Juan |

### Texas

Texas Railroad Commission District No. 1 (South)

|  |             |               |
|--|-------------|---------------|
| Atascosa   | Frio        | McMullen      |
| Bastrop  | Gonzales    | Maverick      |
| Bexar  | Guadalupe   | Medina        |
| Caldwell   | Kinney      | Uvalde        |
| Dimmit   | Lasalle     | Wilson        |
|  |             | Zavala        |
| Texas Railroad Commission District No. 1 (North) |             |               |
| Bandera  | Gillespie   | Milam         |
| Bell   | Hays        | Real          |
| Blanco   | Kendall     | Travis        |
| Burnet   | Kerr        | Val Verde     |
| Comal  | Llano       | Williamson    |
| Edwards  | Mason       |               |
| Texas Railroad Commission District No. 2         |             |               |
| Bee  | Jackson     | Live Oak      |
| Calhoun  | Karnes      | Refugio       |
| De Witt  | Lavaca      | Victoria      |
| Goliad   |             |               |
| Texas Railroad Commission District No. 3         |             |               |
| Austin   | Hardin      | Orange        |
| Brazoria   | Harris      | Polk          |
| Brazos   | Jasper      | San Jacint.   |
| Burleson   | Jefferson   | Trinity       |
| Chambers   | Lee         | Tyler         |
| Colorado   | Liberty     | Walker        |
| Fayette  | Madison     | Waller        |
| Ft. Bend   | Matagorda   | Washington    |
| Galveston  | Montgomery  | Wharton       |
| Grimes   | Newton      |               |
| Texas Railroad Commission District No. 4         |             |               |
| Arkansas   | Jim Hogg    | San Patricio  |
| Brooks   | Jim Wells   | Starr         |
| Cameron  | Kenedy      | Webb          |
| Duval  | Kleberg     | Willacy       |
| Hidalgo  | Nueces      | Zapata        |
| Texas Railroad Commission District No. 5         |             |               |
| Bosque   | Henderson   | Limestone     |
| Collin   | Hill        | McLennan      |
| Dallas   | Hopkins     | Nararro       |
| Delta  | Hunt        | Rains         |
| Ellis  | Johnson     | Robertson     |
| Falls  | Kaufman     | Rockwell      |
| Fannin   | Lamar       | Tarrant       |
| Freestone  | Leon        | Van Zandt     |
| Texas Railroad Commission District No. 6         |             |               |
| Anderson   | Harrison    | Rusk          |
| Angelina   | Houston     | Sabine        |
| Bowls  | Marion      | San Augustine |
| Camp   | Morris      | Shelby        |
| Cass   | Nacogdoches | Smith         |
| Cherokee   | Panola      | Titus         |
| Franklin   | Red River   | Upshur        |

|  |            |              |
|--|------------|--------------|
| Gregg                                      |            | Wood         |
| Texas Railroad Commission District No. 7-B |            |              |
| Brown                                      | Hamilton   | Parker       |
| Callahan                                   | Haskell    | San Saba     |
| Coleman                                    | Hood       | Shackelford  |
| Comanche                                   | Jones      | Somervell    |
| Coryell                                    | Lampasas   | Stephens     |
| Eastland                                   | Mills      | Stonewall    |
| Erath                                      | Nolan      | Taylor       |
| Fisher                                     | Palo Pinto | Throckmorton |
| Texas Railroad Commission District No. 7-C |            |              |
| Coke                                       | McCulloch  | Sutton       |
| Concho                                     | Menard     | Terrell      |
| Crockett                                   | Reagan     | Tom Green    |
| Irion                                      | Runnels    | Upton        |
| Kimble                                     | Schleicher |              |
| Texas Railroad Commission District No. 8   |            |              |
| Andrews                                    | Howard     | Pecos        |
| Brewster                                   | Hudspeth   | Presidio     |
| Crane                                      | Jeff Davis | Reeves       |
| Culberson                                  | Loving     | Sterline     |
| Ector                                      | Martin     | Ward         |
| El Paso                                    | Midland    | Winkler      |
| Glascock                                   | Mitchell   |              |
| Texas Railroad Commission District No. 8-A |            |              |
| Bailey                                     | Floyd      | Lamb         |
| Borden                                     | Gaines     | Lubbock      |
| Cochran                                    | Garza      | Lynn         |
| Cottle                                     | Hale       | Motley       |
| Crosby                                     | Hockley    | Scurry       |
| Dawson                                     | Kent       | Terry        |
| Dickens                                    | King       | Yoakum       |
| Texas Railroad Commission District No. 9   |            |              |
| Archer                                     | Foard      | Montague     |
| Baylor                                     | Grayson    | Wilbarger    |
| Clay                                       | Hardeman   | Wichita      |
| Cooke                                      | Jack       | Wise         |
| Denton                                     | Knox       | Young        |
| Texas Railroad Commission District No. 10  |            |              |
| Armstrong                                  | Gray       | Oldham       |
| Briscoe                                    | Hall       | Parmer       |
| Carson                                     | Hansford   | Potter       |
| Castro                                     | Hartley    | Randall      |
| Childress                                  | Hemphill   | Roberts      |
| Collingsworth                              | Hutchinson | Sherman      |
| Dallam                                     | Lipscomb   | Swisher      |
| Deaf Smith                                 | Moore      | Wheeler      |
| Donley                                     | Ochiltree  |              |
| Texas - Offshore                           |            |              |
| Federal - Offshore                         |            |              |
| State - Offshore                           |            |              |
| General - Offshore                         |            |              |

## **Appendix D**

### **Selected Recurring Natural Gas and Related Reports**

## Appendix D

# Selected Recurring Natural Gas and Related Reports

### **Reports Dealing Principally with Natural Gas and/or Natural Gas Liquids**

- *Natural Gas Annual 1989*, DOE/EIA-0131(89), September 1990.
- *Statistics of Interstate Natural Gas Pipeline Companies 1988*, DOE/EIA-0145(88), November 1989. Published annually.
- *Natural Gas Monthly*, DOE/EIA-0130. Published monthly.

### **Other Reports Covering Natural Gas, Natural Gas Liquids, and Other Energy Sources**

- *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves - 1989 Annual Report*, DOE/EIA-0216(89), September 1990.
- *Monthly Energy Review*, DOE/EIA-0035. Published monthly. Provides national aggregate data for natural gas, natural gas liquids, and other energy sources.
- *Annual Report to Congress 1989*, DOE/EIA-0173(89), March 1990. Published annually.
- *Annual Energy Outlook 1990*, DOE/EIA-0383(90), January 1990. Published annually.
- *Annual Energy Review 1989*, DOE/EIA-0384(89), May 1990. Published annually.
- *Short-Term Energy Outlook*, DOE/EIA-0202. Published quarterly. Provides forecasts for next six quarters for natural gas and other energy sources.
- *Annual Outlook for Oil and Gas: 1990* DOE/EIA-0517(90), May 1990.

- *International Oil and Gas Exploration and Development Activities*, DOE/EIA-0523. Published Quarterly. Provides a compilation of reported oil and gas reserve additions in foreign countries.

### **Selected One-Time Natural Gas and Related Reports**

- *Drilling and Production Under Title I of the Natural Gas Policy Act, 1978-1986*, DOE/EIA-0448(86), January 1989.
- *An Examination of Domestic Natural Gas Resource Estimates*, SR/RNGD/89-01, February 1989.
- *Growth in Unbundled Natural Gas Transportation Services: 1982-1987*, DOE/EIA-0525, May 1989.
- *Assessment of Pipeline Capacity to Transport Domestic Natural Gas Supplies to the Northeast*, SR/RNGD/89-02, August 1989.
- *Natural Gas Production Responses to a Changing Market Environment, 1978-1988*, DOE/EIA-0532, June 1990.
- *Costs and Indices for Domestic Oil and Gas Field Equipment and Production Operations - 1987 through 1989*, DOE/EIA-0185(89), July 1990.
- *U.S. Oil and Gas Reserves by Year of Field Discovery*, DOE/EIA-0534, August 1990.

### **Selected and Recurring Natural Gas and Related Data Reference Reports**

- *Directory of Energy Data Collection Forms*, DOE/EIA-0249(89), January 1990.
- *Oil and Gas Field Code Master List, 1989*, EIA-0370(89), January 1990.

# Glossary

**Annual Requirement:** a reporting company's best estimate of its annual requirement for natural gas needed to make direct sales or sales for resale under certificate authorizations and for company use and unaccounted-for gas during the year following the current report year.

**Certificate Requirement:** the maximum annual volume allowed for sales of natural gas to resale or direct-sale customers under certificate authorization by the FERC. The volume reported should be without regard to FERC-approved curtailment plans.

**Coal Gas:** substitute natural gas produced synthetically by the chemical reduction of coal at a coal gasification facility.

**Dedicated Reserves:** as used in this report and defined in Form 15, dedicated reserves are the volume of recoverable, salable gas reserves committed to, controlled by, or possessed by the reporting pipeline company and used for acts and services for which both the seller and the company have received certificate authorization from the FERC. Reserves include both company-owned reserves (including owned gas in underground storage), reserves under contract from independent producers, and short-term and emergency supplies from the intrastate market. Gas volumes under contract from other interstate pipelines are not included as reserves, but may constitute part or all of a company's gas supply.

**Deliverability:** as used in this report and defined by the FERC in its Order No. 279 (CFR 2.61, 260.7), deliverability "...represents the number of future years during which a pipeline company can meet its annual requirements for its presently certificated delivery capacity from presently committed sources of supply. The availability of gas from these sources of supply shall be governed by the physical capabilities of these sources to deliver gas, by the terms of existing gas-purchase contracts, and by limitations imposed by State or Federal regulatory agencies."

**Drv Gas:** Natural gas from which the entrained liquids and nonhydrocarbon gases have been removed by lease facilities and/or plant processing. This is the gas that the interstate pipeline purchased, or expects to purchase, to serve its annual requirements.

**Gas Supply:** For the purpose of this report, the dedicated, recoverable, salable natural gas, including liquefied natural gas (LNG), synthetic natural gas (SNG), and coal gas available to a reporting company from the following:

- company owned reserves
- independent producer contracts
- LNG contracts
- SNG contracts
- gas purchase contracts with other pipeline companies
- commitments with foreign suppliers
- coal gasification contracts
- recoverable gas in underground storage.

**Independent Producer:** For the purposes of this report, any person who is engaged in the production or gathering of natural gas and who sells natural gas in interstate commerce for resale, but who is not engaged in the transportation of natural gas (other than gathering) by pipeline in interstate commerce.

**Interstate Pipeline:** Any person engaged in natural gas transportation subject to the jurisdiction of the FERC under the Natural Gas Act.

**Interstate Pipeline Purchase:** Any gas supply contracted from and volumes purchased from other interstate pipelines, overland natural gas import purchases, and LNG, SNG, or coal gas purchases from domestic or foreign sources. Purchases from intrastate pipelines, pursuant to Section 311(b) of the NGPA of 1978, and from independent producers are not included with interstate pipeline purchases.

**Intrastate Pipeline:** Any person engaged in natural gas transportation (not including gathering) that is not subject to the jurisdiction of the FERC under the Natural Gas Act (other than any such pipeline which is not subject to the jurisdiction of the FERC solely by reason of Section 1(c) of the Natural Gas Act).

**Liquefied Natural Gas (LNG):** For this report, natural gas which has undergone a phase change to a liquid state and which, before entry into the pipeline stream, must undergo a phase change reversal to the gaseous state.

**Natural Gas:** A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in natural underground reservoirs at reservoir conditions.

**Nonassociated Gas:** Natural gas in reservoirs that do not contain significant quantities of crude oil.

**Offshore Reserves and Production:** Unless otherwise dedicated, reserves and production that are in either State or Federal domains, located seaward of the coastline.

**Other Supply Contracts:** Any contracted gas supply other than owned reserves, producer contracted reserves, and interstate pipeline purchases that are used for acts and services for which the company has received certificate authorization from the FERC. Purchases from intrastate pipelines pursuant to Section 311(b) of the NGPA of 1978 are included with other supply contracts.

**Owned Reserves:** Any reserve of natural gas that the reporting company owns as a result of oil and gas leases, fee mineral ownership, royalty reservations, or lease or royalty reservations and assignments committed to services under certificate authorizations by the FERC. Company-owned recoverable natural gas in underground storage is classified as owned reserves.

**Pipeline Purchases:** Gas supply contracted from and volumes purchased from other natural gas companies as defined by the Natural Gas Act, as amended (52 Stat. 821), excluding independent producers, as defined in Paragraph 154.91(a), Chapter I, Title 18 of the Code of Federal Regulations.

**Plant or Gas Processing Plant:** A facility designed to achieve the recovery of natural gas liquids from the stream of natural gas, which may or may not have been processed through lease separators and field facilities, and to control the quality of the natural gas to be marketed.

**Production:** Includes gas produced from pipeline company-owned reserves and gas purchased from independent producers.

**Report Year:** The calendar year, beginning January 1 and ending December 31.

**Reserve Additions:** The estimated original, recoverable, salable, and new proved reserves credited to new fields, new reservoirs, new gas purchase contracts, amendments to old gas purchase contracts or purchase of gas reserves in-place that occurred during the report year and had not been previously reported. Reserve additions refer to domestic in-the-ground natural gas reserve additions and do not refer to interstate pipeline purchase agreements, contracts with foreign suppliers, coal gas, SNG, or LNG purchase arrangements.

**Reservoir:** A porous and permeable underground formation containing an individual and separate accumulation of producible hydrocarbons (oil and/or gas) that is confined by impermeable rock or water barriers and characterized by a single natural pressure system. In most situations, reservoirs are classified as oil reservoirs or gas reservoirs by a regulatory agency. In the absence of regulatory authority classification, the classification is based on the natural occurrence of the hydrocarbons in the reservoir, and classification and names may be determined by the respondent.

**Revisions.** Any change in earlier reserve estimates, positive or negative, made during the report year as a result of new information, including the enlargement of the proved area (extensions). Revisions for a given report year also include increases associated with improved recovery techniques or equipment, adjustments made for previous errors in production estimates, or changes in one or more facts in volumetric or performance reserve estimates.

**Revisions and Additions (Gross Change in Reserves):** The difference (plus or minus) between the year-end reserves plus production for a given year and the year-end reserves for the previous year.

**Salable-Natural Gas:** Natural gas marketed under controlled quality conditions.

**Short-Term Sales:** Any short-term purchase covering a time period of 2 years or less. Purchases from intrastate pipelines pursuant to Section 311(b) of the NGPA of 1978 are classified as short-term sales, regardless of the stated contract term.

**Supplemental Gaseous Fuel Supplies:** As used in this report supplemental supplies include coal gas, LNG, SNG, and any other supply not explicitly type-identified in the Form 15 filings.

**Supply Source:** May be a single completion, a single well, a single field with one or more reservoirs, several fields under a single gas purchase contract, miscellaneous fields, a processing plant, or a field area, providing, however, that the geographic area encompassed by a single supply source may not be larger than the State in which the reserves are reported.

**Synthetic Natural Gas (SNG):** A product resulting from the manufacture, conversion, or reformation of petroleum hydrocarbons that may easily be substituted for or interchanged with pipeline-quality natural gas.

**Underground Storage:** Any underground facility where natural gas is stored within the confines of naturally occurring earth formations and where natural gas is injected with the intent of future withdrawal and use. Abandoned mines or caverns in salt domes in which natural gas is stored underground are considered to be underground storage facilities.

**Undifferentiated/Unspecified Reserves and Production:** Reserves and production that are not separable by FERC production areas or by States. Undifferentiated and unspecified reserves consist only of company-owned gas in underground storage commencing with report year 1981.

**Warranty Contracts:** Gas purchase agreements for the sale of natural gas by a producer to a pipeline company wherein the producer warrants it will have available sufficient gas supplies to meet its commitments over the life of the contract. Generally, the producer does not dedicate gas reserves underlying any specific acreage, lease, or fields to the agreement. Substitution of various sources of gas supply may be permitted according to the terms of the contract.

**END**

**DATE FILMED**

01 / 18 / 91

