

# Petroleum Supply Annual 1996

## Volume 1

June 1997

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

Finished motor gasoline product supplied (demand) for 1996 has been revised upward in the 1996 *Petroleum Supply Annual*. Data corrections received during the year from survey respondents, as well as the addition of a respondent who began importing significant amounts of motor gasoline in 1996, raised the overall gasoline demand growth rate to 1.3 percent.

Note: Annual refinery capacity data for January 1, 1995 and 1997 are now available on EIA's Home Page ([www.eia.doe.gov](http://www.eia.doe.gov)). Data are available in table format and database format (available for downloading).

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or reflecting any policy position of the Department of Energy or any other organization.

This publication and other Energy Information Administration (EIA) publications may be **purchased** from the Superintendent of Documents, U.S. Government Printing Office.

Recent publications may be purchased from:

**Superintendent of Documents**

U.S. Government Printing Office  
P.O. Box 371954  
Pittsburgh, PA 15250-7954  
(202) 512-1800  
(202) 512-2250 (fax)  
8:00 a.m. to 4:30 p.m., eastern time, M-F

Older publications may be purchased from:

**National Technical Information Service**

U.S. Department of Commerce  
5285 Port Royal Road  
Springfield, Virginia 22161  
(703) 487-4650  
(703) 321-8547 (fax)

**Complimentary** subscriptions and single issues are available to certain groups of subscribers, such as public and academic libraries, Federal, State, local, and foreign governments, EIA survey respondents, and the media. For further information, and for answers to questions on energy statistics, please contact EIA's National Energy Information Center. Address, telephone numbers, and hours are as follows:

**National Energy Information Center (NEIC)**

Energy Information Administration  
EI-30, Forrestal Building  
Washington, DC 20585  
(202) 586-8800  
(202) 586-0727 (fax)

TTY: For the hearing impaired:

(202) 586-1181  
9:00 a.m. to 5:00 p.m., eastern time, M-F

**Internet Addresses:**

E-mail: [infoctr@eia.doe.gov](mailto:infoctr@eia.doe.gov)  
World Wide Web Site: <http://www.eia.doe.gov>  
FTP Site: <ftp://ftp.eia.doe.gov>

**Internet Site Services** - offer nearly all EIA publications. Users can view and download selected pages or entire reports, search for information, download EIA data and analysis applications, and find out about new EIA information products and services.

EIA's **CD-ROM, *Energy InfoDisc***, contains most EIA publications and major energy database applications. The ***Energy InfoDisc***, produced quarterly, is available for a fee from STAT-USA, Department of Commerce, 1-800-STAT-USA.

We thank the following for the use of their photographs and illustrations in this report.

Standard Oil Co., page 1 (courtesy of the American Petroleum Institute).  
Phillips 66 Co., page 31 (courtesy of Phillips 66 Company).  
Chevron U.S.A. Inc., page 79 (courtesy of the American Petroleum Institute).  
Texaco Inc., page 121 (courtesy of Texaco Inc.).  
Standard Oil Co., page 125 (courtesy of the American Petroleum Institute).  
Texaco Inc., page 157 (courtesy of the American Petroleum Institute).  
Atlantic Richfield Co., page 161 (courtesy of the American Petroleum Institute).

Released for printing: June 12, 1997

GPO Stock No.

*On The Cover: Artist's rendition of a wellhead such as those used in the Strategic Petroleum Reserve program which is designed to diminish the impact of a severe interruption of the United States' oil supply. Since 1976, the Department of Energy has been involved in a major facilities development program to stockpile crude oil. The Strategic Petroleum Reserve program has four underground crude oil storage sites in salt domes. These sites are organized into three distribution systems and connected by DOE pipelines to commercial crude oil pipeline networks and marine terminals for drawdown and distribution.*



Printed with soy ink on recycled paper

# Contacts

The *Petroleum Supply Annual* is prepared by the Energy Information Administration, Office of Oil and Gas, Kenneth A. Vagts, Director.

Questions, comments, and general information concerning the contents of the *Petroleum Supply Annual* should be referred to **the National Energy Information Center (202) 586-8800**. Technical questions may be addressed to the following specialists:

<b>Summary Statistics</b> .....	Nancy Masterson	(202) 586-8393
<b>Supply and Disposition</b> .....	Nancy Masterson	(202) 586-8393
<b>Crude Oil Production</b> .....	David Hinton	(202) 586-2990
<b>Natural Gas Processing</b> .....	David Hinton	(202) 586-2990
<b>Refinery Capacity</b> .....	Nancy Masterson	(202) 586-8393
<b>Refinery Operations</b> .....	Stacey Ungerleider	(202) 586-5130
<b>Imports</b> .....	Claudette Graham	(202) 586-9649
<b>Exports</b> .....	John Nealey	(202) 586-9670
<b>Stocks</b> .....	Mike Conner	(202) 586-1795
<b>Transportation</b> .....	Mike Conner	(202) 586-1795
<b>Oxygenate Data</b> .....	Steve Patterson	(202) 586-5994

Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 586-8800.

# Preface

The *Petroleum Supply Annual* (PSA) contains information on the supply and disposition of crude oil and petroleum products. The publication reflects data that were collected from the petroleum industry during 1996 through annual and monthly surveys. The PSA is divided into two volumes. This first volume contains three sections: Summary Statistics, Detailed Statistics, and Refinery Capacity; each with final annual data. The second volume contains final statistics for each month of 1996, and replaces data previously published in the *Petroleum Supply Monthly* (PSM). The tables in Volumes 1 and 2 are similarly numbered to facilitate comparison between them. Below is a description of each section in Volume 1 of the PSA.

## Summary Statistics

This section contains a summary of the data presented each month in the PSM and in Volume 2 of the PSA. Graphs and tables are provided which show 16 years of data depicting the balance between supply, disposition and ending stocks for various commodities including crude oil, motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, propane/propylene, and liquefied petroleum gases.

## Detailed Statistics

The tables contained in this section provide 1996 detailed statistics on supply and disposition, refinery operations, imports and exports, stocks, and transportation of crude oil and petroleum products. In most cases, the statistics are presented for several geographic areas — the United States (50 States and the District of Columbia), five Petroleum Administration for Defense (PAD) Districts, and 12 Refining Districts. At the U.S. and PAD District level, the total volume and the daily rate of activities are presented.

## Refinery Capacity

The tables contained in this section are compiled from the Form EIA-820 “Biennial Refinery Report.” Of particular note are listings of refineries and associated crude oil distillation and downstream capacities by State, as of January 1, 1997, as well as summaries of corporate refinery capacities and refinery storage capacities. In addition, refinery receipts of crude oil by method of transportation for 1996 are provided. Also included are fuels consumed at refineries, and lists of shutdowns, sales, reactivations, and mergers during 1995 and 1996.

## Appendices

Three appendices are provided to assist in understanding and interpreting the data presented in this publication. Industry terminology and product definitions are listed alphabetically in the Glossary.

- Appendix A (District Descriptions and Maps) -Geographic aggregations of the 50 States and the District of Columbia into Refining Districts which make up the PAD Districts.
- Appendix B (Detailed Statistics Explanatory Notes) - Information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables.
- Appendix C (1995 Revised Crude Oil Production) -Updated monthly and annual crude oil production statistics received after the publication of the 1995 PSA.

# Contents

	Page
<b>Tables</b>	
<b>Summary Statistics</b>	
S1. Crude Oil and Petroleum Products Overview, 1981-Present .....	2
S2. Crude Oil Supply and Disposition, 1981-Present.....	6
S3. Crude Oil and Petroleum Product Imports, 1981-Present .....	8
S4. Finished Motor Gasoline Supply and Disposition, 1981-Present .....	17
S5. Distillate Fuel Oil Supply and Disposition, 1981-Present.....	19
S6. Residual Fuel Oil Supply and Disposition, 1981-Present .....	21
S7. Jet Fuel Supply and Disposition, 1981-Present .....	23
S8. Propane/Propylene Supply and Disposition, 1981-Present .....	25
S9. Liquefied Petroleum Gases Supply and Disposition, 1981-Present.....	27
S10. Other Petroleum Products Supply and Disposition, 1981-Present.....	28
Summary Statistics Table and Figure Sources.....	29
Summary Statistics Explanatory Notes.....	30
<b>Detailed Statistics</b>	
<b>National Statistics</b>	
1. U.S. Petroleum Balance .....	33
2. U.S. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products .....	34
3. U.S. Daily Average Supply and Disposition of Crude Oil and Petroleum Products .....	35
<b>Supply and Disposition of Crude Oil and Petroleum Products</b>	
4. PAD District I .....	36
5. Daily Average PAD District I.....	37
6. PAD District II .....	38
7. Daily Average PAD District II .....	39
8. PAD District III.....	40
9. Daily Average PAD District III .....	41
10. PAD District IV.....	42
11. Daily Average PAD District IV .....	43
12. PAD District V .....	44
13. Daily Average PAD District V .....	45
<b>Production of Crude Oil</b>	
14. Production of Crude Oil by PAD District and State .....	46
<b>Natural Gas Processing</b>	
15. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts .....	47
<b>Refinery Operations</b>	
16. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts.....	48
17. Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts .....	50
18. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts .....	52
19. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts.....	54
<b>Imports of Crude Oil and Petroleum Products</b>	
<b>PAD District</b>	
20. Imports of Crude Oil and Petroleum Products.....	55
<b>Country of Origin</b>	
21. United States.....	56
22. PAD District I.....	58
23. PAD District II .....	60
24. PAD District III .....	62
25. PAD Districts IV and V .....	64
<b>State of Entry</b>	
26. Imports of Residual Fuel Oil by Sulfur Content.....	66

**Tables****Exports of Crude Oil and Petroleum Products**

27. Exports of Crude Oil and Petroleum Products by PAD District .....	67
28. Exports of Crude Oil and Petroleum Products by Destination .....	68

**Net Imports**

29. Net Imports of Crude Oil and Petroleum Products into the United States by Country .....	70
---	----

**Stocks**

30. Stocks of Crude Oil and Petroleum Products by PAD District .....	71
31. Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by PAD District and State .....	74

**Movements of Crude Oil and Petroleum Products**

32. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts .....	75
33. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts .....	76
34. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts .....	77
35. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts .....	78

**Refinery Capacity**

36. Number and Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 1997 .....	80
37. Production Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 1997 .....	82
38. Capacity of Operable Petroleum Refineries by State as of January 1, 1997 .....	84
39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 1997 .....	100
40. Refiners' Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 1997 .....	107
41. Operable Crude Oil and Downstream Charge Capacity of Petroleum Refineries, January 1, 1981 to January 1, 1997 .....	112
42. Operable Production Capacity of Petroleum Refineries, January 1, 1981 to January 1, 1997 .....	113
43. Working Storage Capacity at Operable Refineries by PAD District as of January 1, 1997 .....	114
44. Shell Storage Capacity at Operable Refineries by PAD District as of January 1, 1997 .....	115
45. Capacity and Fresh Feed Input to Selected Downstream Units at U.S. Refineries, 1995 to 1997 .....	116
46. Refinery Receipts of Crude Oil by Method of Transportation by PAD District, 1996 .....	117
47. Fuels Consumed at Refineries by PAD District, 1995 and 1996 .....	118
48. Shutdown and Reactivated Refineries During 1995 and 1996 .....	119
49. Refinery Sales, 1995 and 1996 .....	120

**Illustrations**

S1. Petroleum Overview, 1981-Present .....	4
S2. Petroleum Products Supplied, 1981-Present .....	4
S3. Crude Oil Supply and Disposition, 1981-Present .....	5
S4. Crude Oil Ending Stocks, 1981-Present .....	5
S5. Finished Motor Gasoline Supply and Disposition, 1981-Present .....	16
S6. Motor Gasoline Ending Stocks, 1981-Present .....	16
S7. Distillate Fuel Oil Supply and Disposition, 1981-Present .....	18
S8. Distillate Fuel Oil Ending Stocks, 1981-Present .....	18
S9. Residual Fuel Oil Supply and Disposition, 1981-Present .....	20
S10. Residual Fuel Oil Ending Stocks, 1981-Present .....	20
S11. Jet Fuel Supply and Disposition, 1981-Present .....	22
S12. Jet Fuel Ending Stocks, 1981-Present .....	22
S13. Propane/Propylene Supply and Disposition, 1981-Present .....	24
S14. Propane/Propylene Ending Stocks, 1981-Present .....	24
S15. Liquefied Petroleum Gases Supply and Disposition, 1981-Present .....	26
S16. Liquefied Petroleum Gases Ending Stocks, 1981-Present .....	26

**Appendices**

A. District Descriptions and Maps .....	123
B. Explanatory Notes .....	127
C. 1995 Revised Crude Oil Production .....	158

**Glossary**

Definitions of Petroleum Products and Other Terms .....	163
---	-----