

Petroleum Supply Monthly

December 1999

With Data for October 1999

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

This report is available on the WEB at:

http://www.eia.doe.gov/oil_gas/petroleum/data_publications/petroleum_supply_monthly/psm.htm

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the U.S. Department of Energy. The information contained herein should be attributed to the Energy Information Administration and 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
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.

Cities Service Co., page xxxvii (courtesy of the American Petroleum Institute).
Standard Oil Co., page 1 (courtesy of the American Petroleum Institute).
Phillips 66 Co., page 33 (courtesy of Phillips 66 Company).
Texaco Inc., page 109 (courtesy of Texaco Inc.).
Standard Oil Co., page 113 (courtesy of the American Petroleum Institute).
Texaco Inc., page 127 (courtesy of the American Petroleum Institute).
American Petroleum Institute, page 133 (courtesy of the American Petroleum Institute).
Atlantic Richfield Co., page 139 (courtesy of the American Petroleum Institute).

Released for printing: December 27, 1999

The *Petroleum Supply Monthly* (ISSN 0733-0553) is published monthly by the Energy Information Administration, 1000 Independence Avenue, SW., Washington, DC 20585, and sells for \$100.00 per year (price is subject to change without advance notice). Periodical postage paid at Washington, DC 20066-9998, and at additional mailing offices. POSTMASTER: Send address changes to *Petroleum Supply Monthly*, Energy Information Administration, EI-30, 1000 Independence Avenue, SW, Washington, DC 20585.



Data Available Electronically

Data from the *Weekly Petroleum Status Report*, *Winter Fuels Report*, and the *Petroleum Supply Monthly* publications as well as data from other sources are available electronically on the Energy Information Administration's World Wide Web Site, and the Comprehensive Oil and Gas Information Source (COGIS). The schedule for data release is as follows:

Publications/Sources	Information
<i>Weekly Petroleum Status Report</i>	
Wednesday 9:00 a.m. (weekly)	Table 1 (U.S. Balance Sheet) and Data Log (Table 14 plus 4-week averages)
Wednesday 5:00 p.m. 6th-12th (monthly)	Table H1 (Petroleum Supply Summary)
<i>Winter Fuels Report</i> (October through March)	
Wednesday 5:00 p.m. (weekly)	All tables and highlights
<i>Propane Data</i> (April through September)	
Second Wednesday of the month (9:00 a.m.)	Propane Stocks
<i>Petroleum Supply Monthly</i>	
23rd-26th (monthly)	Table H1 (Petroleum Supply Summary) and all Summary Statistics and Detailed Statistics Tables
<i>Petroleum Supply Annual</i>	
<i>Oxygenate Data</i>	
15 working days after the report month	Table D1 U.S. Summary Table D2 (Fuel Ethanol Production/Stocks) Table D3 (MTBE Production/Stocks) and Table D4 (MTBE Merchant and Captive)
<i>Imports Data</i>	
7th-10th (preliminary)	Import data by company from the Form EIA-814, "Monthly Imports Report"
23rd-26th (final)	

Preface

The *Petroleum Supply Monthly* (PSM) is one of a family of four petroleum supply publications produced by the Petroleum Division within the Energy Information Administration (EIA) reflecting different levels of data timeliness and completeness. The other publications are the *Weekly Petroleum Status Report* (WPSR), the *Winter Fuels Report*, and the *Petroleum Supply Annual* (PSA).

Data presented in the *PSM* describe the supply and disposition of petroleum products in the United States and major U.S. geographic regions. The data series describe production, imports and exports, inter-Petroleum Administration for Defense (PAD) District movements, and inventories by the primary suppliers of petroleum products in the United States (50 States and the District of Columbia). The reporting universe includes those petroleum sectors in primary supply. Included are: petroleum refiners, motor gasoline blenders, operators of natural gas processing plants and fractionators, inter-PAD transporters, importers, and major inventory holders of petroleum products and crude oil. When aggregated, the data reported by these sectors approximately represent the consumption of petroleum products in the United States.

Data presented in the *PSM* are divided into two sections: Summary Statistics and Detailed Statistics.

Summary Statistics

The tables and figures in the Summary Statistics section of the *PSM* present a time series of selected petroleum data on a U.S. level. Most time series include preliminary estimates for one month based on the Weekly Petroleum Supply Reporting System; statistics based on the most recent data from the Monthly Petroleum Supply Reporting System (MPSRS); and statistics published in prior issues of the *PSM* and *PSA*.

Detailed Statistics

The Detailed Statistics tables of the *PSM* present statistics for the most current month available as well as year-to-date. In most cases, the statistics are presented for several geographic areas - - the United States (50 States and the District of Columbia), five 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. The statistics are developed from monthly survey forms submitted by respondents to the EIA and from data provided from other sources.

Appendices

Four appendices are provided to assist in understanding and interpreting the data presented in this publication:

- 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 (Impact of Resubmissions or Major Series) - Information on revisions to published statistics caused by resubmission of respondent survey forms.
- Appendix D (EIA-819M, Monthly Oxygenate Telephone Report) -Preliminary information on production and stocks of fuel ethanol and methyl tertiary butyl ether (MTBE) by PAD District. Data are collected from a sample of respondents reporting on the MPSRS surveys. Data are also published in the *WPSR* and are available electronically approximately 15 working days after the end of the month.

Industry terminology and product definitions are listed alphabetically in the Glossary. Final statistics for the data series published in the *PSM*, as well as additional data from the biennial refinery and oxygenate capacity surveys are published in the *PSA*. The *PSA* is published approximately five months after the end of the report year.

Contents

	Page
Feature Articles	ix
Highlights	xxxvii
Summary Statistics Tables	
S1. Crude Oil and Petroleum Products Overview, 1984-Present	2
S2. Crude Oil Supply and Disposition, 1984-Present.....	6
S3. Crude Oil and Petroleum Product Imports, 1984-Present	8
S4. Finished Motor Gasoline Supply and Disposition, 1984-Present	17
S5. Distillate Fuel Oil Supply and Disposition, 1984-Present.....	19
S6. Residual Fuel Oil Supply and Disposition, 1984-Present	21
S7. Jet Fuel Supply and Disposition, 1984-Present	23
S8. Propane/Propylene Supply and Disposition, 1984-Present	25
S9. Liquefied Petroleum Gases Supply and Disposition, 1984-Present.....	27
S10. Other Petroleum Products Supply and Disposition, 1984-Present	28
Summary Statistics Figures	
S1. Petroleum Overview, October 1998-Present	4
S2. Petroleum Products Supplied, October 1998-Present.....	4
S3. Crude Oil Supply and Disposition, October 1998-Present.....	5
S4. Crude Oil Ending Stocks, October 1998-Present	5
S5. Finished Motor Gasoline Supply and Disposition, October 1998-Present	16
S6. Motor Gasoline Ending Stocks, October 1998-Present.....	16
S7. Distillate Fuel Oil Supply and Disposition, October 1998-Present.....	18
S8. Distillate Fuel Oil Ending Stocks, October 1998-Present	18
S9. Residual Fuel Oil Supply and Disposition, October 1998-Present	20
S10. Residual Fuel Oil Ending Stocks, October 1998-Present.....	20
S11. Jet Fuel Supply and Disposition, October 1998-Present	22
S12. Jet Fuel Ending Stocks, October 1998-Present	22
S13. Propane/Propylene Supply and Disposition, September 1998-Present.....	24
S14. Propane/Propylene Ending Stocks, September 1998- Present	24
S15. Liquefied Petroleum Gases Supply and Disposition, September 1998-Present.....	26
S16. Liquefied Petroleum Gases Ending Stocks, September 1998-Present	26
Summary Statistics Notes	
Summary Statistics Table and Figure Sources.....	29
Summary Statistics Explanatory Notes	30
Detailed Statistics Tables	
National Statistics	
1. U.S. Petroleum Balance	35
2. U.S. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products.....	36
3. U.S. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products	37
4. U.S. Daily Average Supply and Disposition of Crude Oil and Petroleum Products	38
5. U.S. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products.....	39
Supply and Disposition of Crude Oil and Petroleum Products	
6. PAD District I	40
7. Year-to-Date PAD District I	41
8. Daily Average PAD District I.....	42
9. Year-to-Date Daily Average PAD District I	43
10. PAD District II	44
11. Year-to-Date PAD District II.....	45
12. Daily Average PAD District II.....	46
13. Year-to-Date Daily Average PAD District II	47
14. PAD District III.....	48
15. Year-to-Date PAD District III.....	49
16. Daily Average PAD District III	50
17. Year-to-Date Daily Average PAD District III	51
18. PAD District IV.....	52
19. Year-to-Date PAD District IV	53
20. Daily Average PAD District IV	54
21. Year-to-Date Daily Average PAD District IV.....	55

Supply and Disposition of Crude Oil and Petroleum Products (Contd.)

22. PAD District V 56
23. Year-to-Date PAD District V 57
24. Daily Average PAD District V 58
25. Year-to-Date Daily Average PAD District V 59

Production of Crude Oil

26. Production of Crude Oil by PAD District and State 60

Natural Gas Processing

27. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts 61

Refinery Operations

28. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts..... 62
29. Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts..... 64
30. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts 66
31. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts 68

Imports of Crude Oil and Petroleum Products

State of Entry

32. Imports of Residual Fuel Oil by Sulfur Content 69

PAD District

33. Imports of Crude Oil and Petroleum Products 70
34. Year-to-Date Imports of Crude Oil and Petroleum Products 71

Country of Origin

35. United States..... 72
36. PAD District I..... 74
37. PAD District II 76
38. PAD District III 78
39. PAD Districts IV and V 80
40. Year-to-Date United States 82
41. Year-to-Date PAD District I 84
42. Year-to-Date PAD District II 86
43. Year-to-Date PAD District III..... 88
44. Year-to-Date PAD Districts IV and V 90

Exports of Crude Oil and Petroleum Products

45. Exports of Crude Oil and Petroleum Products by PAD District..... 92
46. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District 93
47. Exports of Crude Oil and Petroleum Products by Destination 94
48. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination 96

Net Imports

49. Net Imports of Crude Oil and Petroleum Products into the United States by Country 98
50. Year-to-Date Net Imports of Crude Oil and Petroleum Products into the United States by Country..... 99

Stocks

51. Stocks of Crude Oil and Petroleum Products by PAD District 100
52. Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by PAD District and State 103

Movements of Crude Oil and Petroleum Products

53. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts..... 104
54. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts 105
55. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts..... 106
56. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts..... 107

Appendices

A. District Descriptions and Maps 109
B. Detailed Statistics Explanatory Notes 113
C. Impact of Resubmissions on Major Series, 1999..... 127
D. EIA-819M, Monthly Oxygenate Telephone Report 133

Glossary

Definitions of Petroleum Products and Other Terms..... 139

Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues.

U.S. Petroleum Developments: 1990	February 1991
U.S. Petroleum Trade 1990.....	March 1991
Effects of the Clean Air Act’s Highway Diesel Fuel Oil Provisions	June 1991
Timeliness and Accuracy of Petroleum Supply Data	June 1991
Regulation of Underground Petroleum Storage	August 1991
Alternative Transportation Fuels	October 1991
U.S. Petroleum Developments: 1991.....	February 1992
Comparisons of Independent Statistics on Petroleum Supply	March 1992
U.S. Petroleum Trade, 1991	April 1992
Timeliness and Accuracy of Petroleum Supply Data	September 1992
Three Dimensional Seismology-A New Perspective	December 1992
Summer 1993 Motor Gasoline Outlook	April 1993
Comparisons of Independent Statistics on Petroleum Supply	May 1993
Drilling Sideways.....	June 1993
The Economics of the Clean Air Act Amendments of 1990	July 1993
Accuracy of Petroleum Supply Data	August 1993
Distillate Fuel Oil Outlook for Winter 1993-1994	October 1993
Propane Outlook for Winter 1993-1994	October 1993
Strategic Shipping Lanes	January 1994
Summer 1994 Motor Gasoline Outlook	April 1994
Accuracy of Petroleum Supply Data	October 1994
Distillate Fuel Oil Assessment for Winter 1994-1995	October 1994
Propane Assessment for Winter 1994-1995	October 1994
Comparisons of Independent Statistics on Petroleum Supply	April 1995
Summer 1995 Gasoline Assessment.....	May 1995
Accuracy of Petroleum Supply Data	September 1995
Distillate Fuel Oil Assessment for Winter 1995-1996	October 1995
Propane Assessment for Winter 1995-1996	October 1995
U.S. Refining Capacity Utilization	October 1995
Summer 1996 Gasoline Assessment.....	April 1996
Recent Distillate Fuel Oil Inventory Trends.....	May 1996
Recent Trends in Motor Gasoline Stock Levels	May 1996
Comparisons of Independent Petroleum Supply Statistics.....	August 1996
Accuracy of Petroleum Supply Data	September 1996
The Outlook for U.S. Import Dependence.....	September 1996
Recent Trends in Crude Oil Stock Levels	October 1996
Distillate Fuel Oil Assessment for Winter 1996-1997	November 1996
Propane Market Assessment for Winter 1996-1997.....	November 1996
Crosswell Seismology—A View from Aside.....	December 1996
Comparisons of Independent Petroleum Supply Statistics.....	July 1997
The Intricate Puzzle of Oil and Gas “Reserve Growth”	July 1997
Propane Market Assessment for Winter 1997-1998.....	November 1997
Accuracy of Petroleum Supply Data	December 1997
EIA Corrects Errors in It’s Drilling Activity Estimates Series	March 1998
Accuracy of Petroleum Supply Data	October 1998
Demand and Price Outlook for Phase 2 Reformulated Gasoline, 2000	April 1999
Comparisons of Independent Petroleum Supply Statistics.....	August 1999

Accuracy of Petroleum Supply Data

by Tammy G. Heppner and Carol L. French

Overview

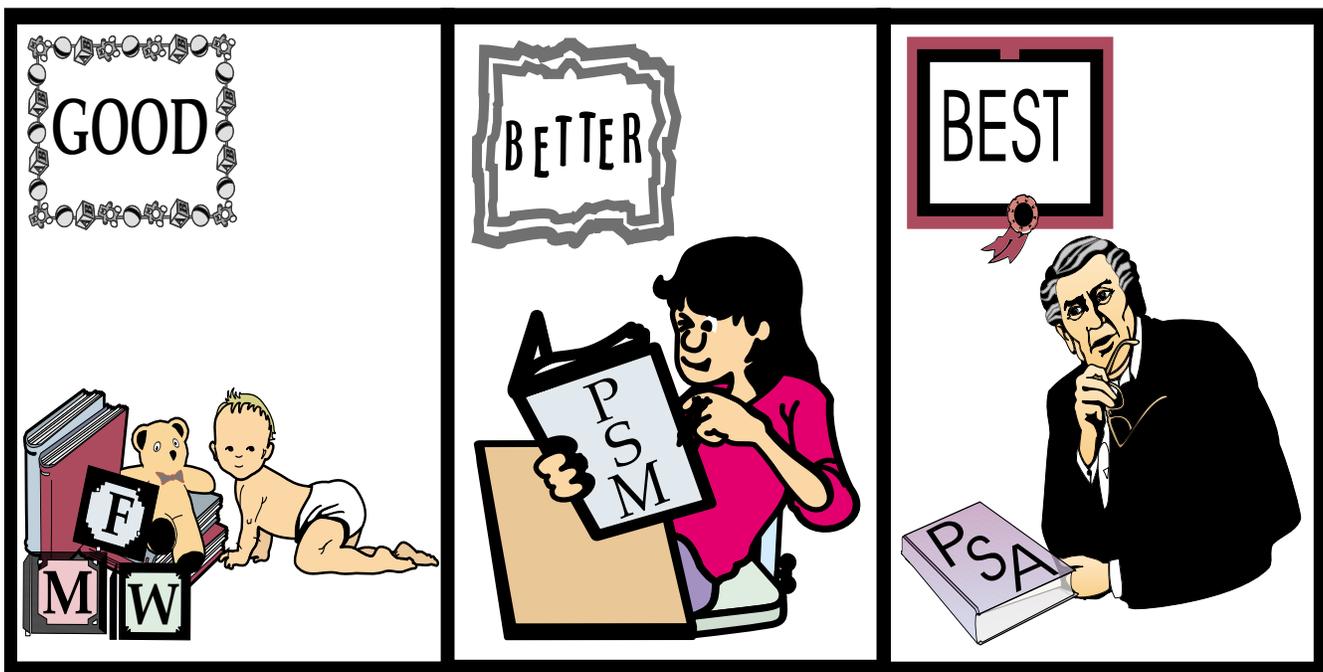
Petroleum supply data collected by the Petroleum Division (PD) of the Energy Information Administration (EIA) displayed improving signs of accuracy in 1998 from initial estimates to final values. These data were presented in a series of PD publications: the *Weekly Petroleum Status Report* (WPSR), the *Winter Fuels Report* (WFR), the *Petroleum Supply Monthly* (PSM), and the *Petroleum Supply Annual* (PSA). Weekly estimates in the *WPSR* and *WFR* were the first values available.

Figure FE1 illustrates the improving signs of accuracy from the weekly estimates to the interim monthly values to the final petroleum supply values. The monthly-from-weekly (MFW) data are the least accurate but “good.” The *PSM* data are more accurate or “better” and the *PSA* data are the most accurate or “best.” Although the comparison of 1998 MFW and *PSM* values to *PSA* values shows 1998 initial and interim data to be less accurate than 1997, these results may be a combination of less accurate initial and interim reporting and an outstanding effort by EIA to resolve reporting discrepancies for the *PSA*. For 1998, 66 petroleum supply data series were analyzed to determine how close the *PSM* values were to the final *PSA* values. For these series, 40 out of the 66 were within 1 percent

of the *PSA* values in terms of mean absolute percent error as compared to 45 in 1997. Sixty-one petroleum supply data series were analyzed to see how close the MFW estimates were to the final *PSA* values. For these 61 series, 21 were within 2 percent of the *PSA* values in terms of mean absolute percent error and, of those, 8 were within 1 percent, compared to 27 and 11, respectively, for 1997.

Two major factors that contribute to the *PSM* values being more accurate than the MFW estimates are: (1) the greater length of time between the close of the reference period and the publication date of the *PSM*; and, (2) some MFW values are estimates whereas many *PSM* respondents extract their actual data from automated accounting systems. The greater length of time allows more in-depth review of the data by the respondents and EIA. Within 2 months of the close of a reference month, interim values are published in the *PSM*. The weekly data are more quickly available. The *WPSR* is available electronically 5 days after and in hardcopy 7 days after the close of the reference week (excluding holiday weeks). Propane data are available electronically and in the *WPSR*. About 5 months after the end of the reference year, final monthly values, reflecting any resubmissions, are published in the *PSA*.

Figure FE1. With time, data accuracy grows



Historically, the weekly publications (*WPSR* and *WFR*) and the monthly publication (*PSM*) provided volumes of crude oil and petroleum products data at relatively increasing levels of accuracy. This article provides petroleum analysts with a measure of the degree to which, on average, estimates and interim values vary from their final values.

The Petroleum Supply Reporting System

The 15 surveys in the Petroleum Supply Reporting System (PSRS) track the supply and disposition of crude oil, petroleum products, and natural gas liquids in the United States. To maintain a database with historically accurate observations and current estimates from the petroleum industry, EIA administers three survey series: weekly, monthly, and biennial (every other year).

The PSRS is organized into two data collection subsystems, the Weekly Petroleum Supply Reporting System (WPSRS) and the Monthly Petroleum Supply Reporting System (MPSRS). The WPSRS processes data from the five weekly surveys. In addition, the Form EIA-807, "Propane Telephone Survey,"

collects data weekly from October through March. The MPSRS includes eight monthly surveys, one biennial survey, and the Form EIA-807 monthly data, which are collected from April through September.

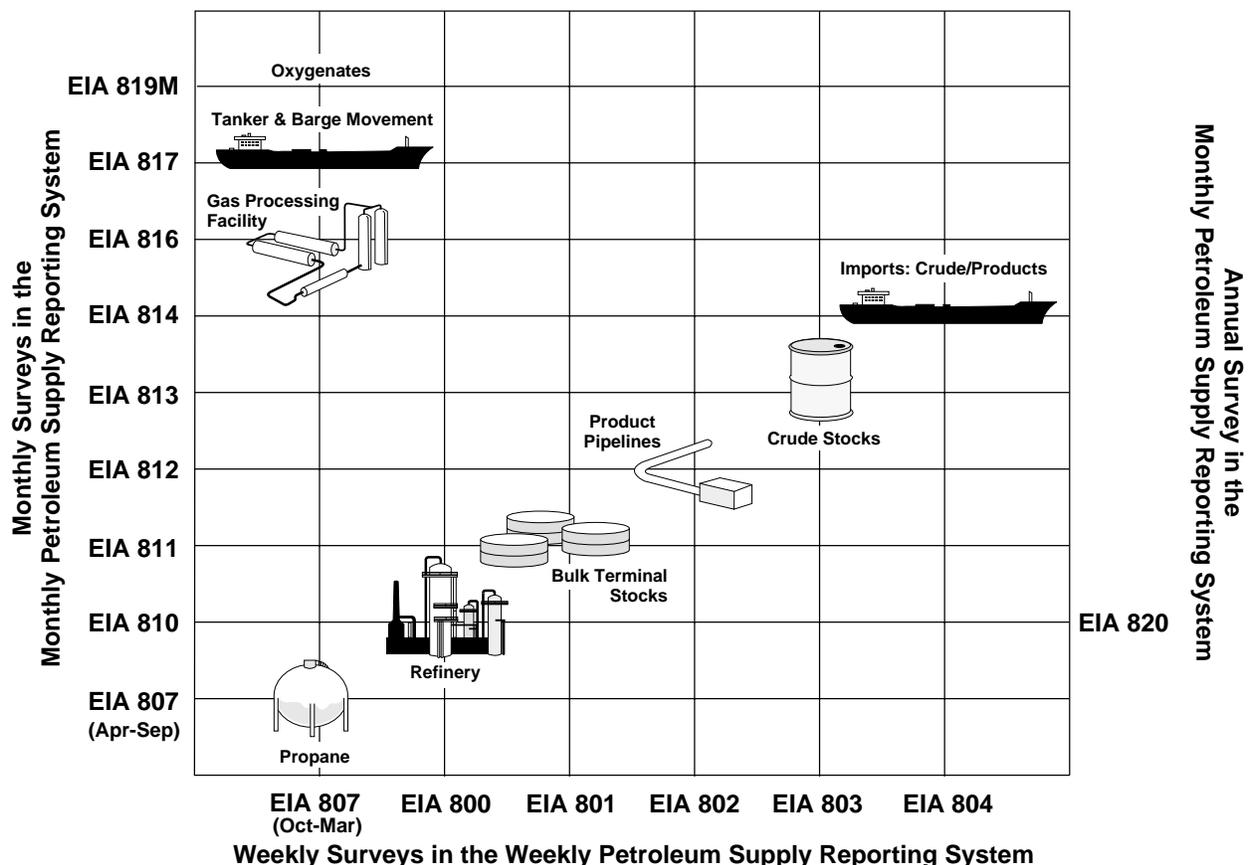
Figure FE2 displays the petroleum supply and distribution system and indicates the points at which petroleum supply data are collected. Both weekly and monthly surveys are administered at six key points along the petroleum production and supply path: (1) refineries, (2) bulk terminals, (3) product pipelines, (4) crude oil stock holders, and (5) importers of crude oil and products.

Annual U.S. refinery capacity data are collected on the Form EIA-820, "Annual Refinery Report." These data are published in Volume 1 of the *PSA*.

The Weekly Petroleum Supply Reporting System

The WPSRS contains the data collected from the five weekly surveys. Each weekly survey is distributed to a sample of the corresponding monthly survey's universe. In Figure FE2, the icons represent the target population of the monthly and weekly surveys of the PSRS. For example, the target population for the

Figure FE2. Petroleum Supply Reporting System: Surveys and Subsystems



Source: Energy Information Administration, Petroleum Supply Reporting System.

survey Forms EIA-801 and EIA-811 is bulk terminal stocks. Thus, the respondents to the Form EIA-801 are a sample of the respondents who report on Form EIA-811. For the weekly surveys, EIA aims for a minimum 90-percent multi-attribute-cutoff sample from the respondents to the corresponding monthly survey. In choosing the sample for each product, companies are ranked in descending order by volume. Respondents are chosen in order, down the list until the sample includes those companies contributing at least 90 percent of a variable's total volume. For example, for distillate fuel oil stocks, the weekly sample includes those respondents whose combined volumes of stocks for distillate fuel oil from refineries, bulk terminals, and pipelines constitute at least 90 percent of the total volume of distillate fuel oil stocks as reported in the corresponding monthly surveys.

With these surveys, EIA can provide timely, relatively accurate snapshots of the U.S. petroleum industry every week. The weekly surveys collect information on the supply and disposition of selected petroleum products and crude oil. The reference period for each weekly survey begins at 7:01 a.m. each Friday and ends at 7:00 a.m. the following Friday. Respondents report their data via telephone, facsimile, or EIA's electronic data collection software package, the Personal Computer Electronic Data Reporting Option (PEDRO). All respondents must submit their data by 5:00 p.m. on the Monday following the end of the reference period. During 2 working days, quality control procedures are executed. Cell values determined to be unusual or inconsistent with other cell values are flagged. The validity of the value of each flagged cell is investigated. Some flagged values are verified by the respondent to be correct; other flagged cells are corrected; and the remaining flagged values are referred to as unresolved. Nonrespondent and unresolved flagged data are imputed using an exponentially smoothed mean of the respondents' historical data.

Within 5 days of the close of the reference week, data are made available to the public on the EIA's internet web site (<http://www.eia.doe.gov>) and within 7 days in hardcopy (through the *WPSR*). Until December 1998, data were also available through the EIA electronic publishing system (EPUB). The elimination of EPUB was the result of a customer survey, resource reductions, and decreasing customer usage. Except when holidays delay data processing schedules, values for the weekly variables, with the exception of propane, are available via the internet at 9:00 a.m. on the Wednesday following the close of the reference week. Propane data are available via the internet at 4:00 p.m. on the same Wednesday. The hardcopy *WPSR* is distributed on the Friday morning following the close of the reference week.

The Monthly Petroleum Supply Reporting System

The reference period for the monthly surveys starts on the first day of the month at 12:01 a.m. and ends on the last day of the month at midnight. Except for the Form EIA-819M, the

deadline for filing monthly surveys is the 20th calendar day following the end of the report month. Data collection for the Form EIA-819M begins on the seventh working day of the month. Form EIA-819M data are solicited by telephone or received by facsimile. Data for the other monthly surveys are reported via telephone, facsimile, or PEDRO.

During the period of data editing, either the respondent or EIA staff may identify an error. If the respondent discovers an error, the EIA representative for a particular survey is notified and the value is corrected. If EIA's edits diagnose an unusual value, an EIA representative will determine if the value is correct or incorrect by calling the company and/or reviewing historical data.

Within 60 days of the close of the reference month, all of the interim monthly data are published in the *PSM*. Customer satisfaction surveys conducted by EIA each year show a need for faster release of available monthly data. In response to this need, beginning in November 1995, EIA implemented a plan for early release of monthly petroleum statistics approximately 45 days after the end of the report period. The preliminary data are presented in four tables: "U.S. Daily Average Supply and Disposition of Crude Oil and Petroleum Products," "Imports of Crude Oil and Petroleum Products into the United States by Country of Origin," "Stocks of Crude Oil and Petroleum Products by Petroleum Administration for Defense (PAD) District," and "Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by PAD District and State". These preliminary tables are available on the internet approximately on the 13th of each month. After incorporation of petroleum exports and crude oil production, these tables are replaced with final tables between the 23rd and the 26th of each month. In addition to the internet, beginning in March 1996, monthly data became available on EIA's CD-ROM called the Energy InfoDisc, which is released quarterly.

Throughout the year, EIA accepts data revisions of monthly data. If a revision is made after the *PSM* has been published, it is referred to as a resubmission. Resubmissions for earlier months are published in Appendix C of the *PSM* and are reflected in the *PSA*.

Beginning with the February 1994 *PSM*, Table H1, "Petroleum Supply Summary" was included to show early estimates of monthly data. The current-month values in Table H1 are preliminary estimates based on weekly submissions. These monthly-from-weekly estimates become available in the *WPSR* and on the internet on the Wednesday following the first Friday of each month.

Within 5 months of the end of the calendar year, the final monthly values for the previous year are published in the *PSA*. These values reflect all *PSM* resubmissions and other data corrections. The values contained in the *PSA* are EIA's most accurate measures of petroleum supply industry activity.

Table FE1. Average Coverage for Weekly Surveys, 1998 and 1997 (Percent of Final Monthly Volumes Included in Monthly-from-Weekly Sample)

Product	Stocks						Production		Imports	
	Refinery		Bulk Terminal		Pipeline		1998	1997	1998	1997
	1998	1997	1998	1997	1998	1997				
Total Motor Gasoline.....	98	98	92	93	97	97	99	99	98	98
Jet Fuel	98	98	91	94	99	99	99	99	97	99
Distillate Fuel Oil	97	97	88	88	98	98	97	97	93	90
Residual Fuel Oil.....	96	95	90	91	—	—	95	95	91	95
Crude Oil	96	96	—	—	—	—	—	—	94	94

— = Not Applicable.

Source: Energy Information Administration, Petroleum Supply Reporting System.

Factors Affecting Data Accuracy

Maintaining an accurate database is a major goal of EIA. The quality of the data drives the quality of all qualitative and quantitative analyses conducted using these data. Accuracy and timeliness are primary attributes of high quality data. Accuracy of survey data is measured as the closeness of the published values to the true values (i.e., those values that would be obtained if the target population had been correctly surveyed and all the data had been precisely recorded).

Respondents to the monthly surveys have more time to file than the weekly respondents, enabling them to collect, review, and revise their data more carefully than the weekly respondents. Additionally, EIA has more time to edit the monthly data. Also, some weekly respondents report estimates while many monthly respondents extract actual data from accounting systems. Thus, the monthly data are more accurate.

Some sources of error, such as nonresponse, are not totally preventable. Other errors, such as sampling errors, are unique to a particular type of survey. One situation where sampling error occurs is if the group of sampled respondents is dissimilar to the full population. Within the PSRS, only weekly surveys, the Form EIA-819M, "Monthly Oxygenate Telephone Report," and the Form EIA-807, "Propane Telephone Survey," are at risk of having sampling errors. However, all surveys in the PSRS are at risk for nonsampling errors, such as: (1) insufficient coverage of respondents (the survey frame does not include all members of the target population); (2) nonresponse; (3) response error; and (4) internal processing errors such as incorrect data entry. A detailed discussion of factors influencing data accuracy and how they are minimized in the PSRS follows.

Samples and Sampling Error

A sample is a subsection of a universe identifying members of a target population. The weekly surveys are administered to samples of the monthly populations to reduce respondent

burden and to expedite the turnaround of data from survey respondents to the public. As with any sample, the values obtained are different from those obtained if the full universe had been surveyed. Sampling error is the difference between a sample estimate and a population value.

There are five samples, one for each weekly petroleum supply survey, in the WPSRS. For these surveys, the sampling error is minimized by using a minimum 90-percent multi-attribute-cutoff sample from the corresponding monthly survey's frame. At the end of each month, updates are made to the samples and survey frames if a 90-percent coverage was not obtained.

For the weekly surveys, better coverage will most likely reduce sampling error. As shown in Table FE1, 1998 coverage was comparable to 1997. All but two of the 21 product and supply type combinations had coverage of 90 percent or above in 1998. For 12 of the 21 combinations, 1998 coverage increased from 1997. Tabulations were done before rounding of the coverage values. The largest percentage increase from 1997 to 1998 was for distillate fuel oil imports, from 90 to 93 percent. Residual fuel oil imports displays the largest percentage decrease from 1997 to 1998, from 95 to 91 percent.

Nonsampling Error

Unlike sampling errors, all survey data, even those from a census survey, are at risk of incurring nonsampling errors. There are two categories of nonsampling errors, random and systematic. With random error, on average, and over time, values will be overestimated by the same amount they are underestimated. Therefore, over time, random errors do not bias the data, but they will give an inaccurate portrayal at any point in time. On the other hand, systematic error is a source of bias in the data, since these patterns of errors are made repeatedly. The following is a discussion of how the four most frequently occurring types of nonsampling error are minimized within the PSRS.

Table FE2. Average Response Rates for Monthly and Weekly Surveys, 1998

Survey Site	Respondents to Monthly Surveys			Respondents to Weekly Surveys		
	Average Universe Size	Average Number of Respondents	Percent ¹	Average Weekly Sample Size	Average Number of Respondents	Percent ²
Refinery.....	252	243	96.3	185	175	94.6
Bulk Terminal.....	300	287	95.6	72	67	92.2
Pipeline	81	80	99.3	43	41	95.6
Crude Oil Stocks	174	169	99.1	83	79	95.7

¹ The average response rates for monthly surveys are calculated by summing the individual monthly response rates and dividing by 12.

² The average response rates for weekly surveys are calculated by summing the individual weekly response rates and dividing by 52.

Note: Percents are calculated before rounding.

Source: Energy Information Administration, Petroleum Supply Reporting System.

Frame Updates

The list of all companies identified as members of the target population is called a frame. If members of the target population are not included in the frame, there is an undercount of the aggregate data. To diminish the chance of undercounting, the PSRS frames are continually updated. New companies are identified through continual review of petroleum industry periodicals, newspaper articles, and correspondence from respondents. During the frames update, each frame is scrutinized to assure completeness.

Maintaining a Low Nonresponse

Survey respondents are required by law to report to EIA (see Explanatory Note 6 of the *PSM* for a description of action for chronic nonresponse). The 1998 response rates for the weekly surveys and their corresponding monthly surveys are enumerated in Table FE2. Even though the 1998 average response rates for each of the EIA weekly and monthly surveys was above 92 percent, there was a slight decrease for most surveys from 1997. Budget cuts at respondent companies had a negative effect on response rates. Company mergers and changes in company reporting systems have also contributed to lower response rates.

To mitigate the effect of nonresponse, imputed values are calculated for all nonreported values except monthly imports. Weekly imputed values are the exponentially smoothed mean of that respondent's historical values for that variable. Monthly imputed values are the previous month's value for the particular respondent and variable. For imports, however, there is a great deal of fluctuation from one reference period to another, with respondents frequently having no imports of a particular product. As a result, zero is the value imputed for nonreported cells on the monthly survey. In addition, the monthly imports are collected and published at a much greater level of detail than the weekly imports, which makes imputation impractical.

Reducing Response Error

Over the past 5 years, many structural and procedural improvements to the PSRS system have been made in order to reduce the problem of nonsampling errors. One such improvement has been the increased participation in the PEDRO

system, which permits all weekly and monthly survey data except the Form EIA-819M and Form EIA-807 to be submitted to EIA electronically. A respondent entering values via PEDRO may execute edit routines prior to transmission of the survey responses. These routines include consistency and outlier (extreme value) checks of the data. Unusual or nonreported cells are flagged and, prior to transmission of the data, a representative of the company is able to review and verify or correct data in the flagged cells.

Even with sophisticated edit checks, response error (the difference between the reported value and the actual value) remains the most likely cause of data inaccuracy. The weekly surveys are more susceptible to response error since some of their values are estimates. Many monthly respondents abstract their actual data from accounting systems and thus are generally more accurate.

Maintaining accurate accounting records, however, does not ensure against response error. For example, numbers can be transposed within the correct cell; an otherwise correct value may be entered in the wrong cell; a respondent may misinterpret the intent of a question; or the wrong units may be used.

Survey Clarity

The terms, layout, and definitions on all survey forms are periodically reviewed for completeness, clarity, and consistency across surveys. At regular intervals, survey intent, as well as what data are collected, are subject to industry and government review. To the extent possible, industry changes in terminology and practice are incorporated into the PSRS on an ongoing basis.

Data Assessment

Each of the variables included in these analyses is of current and historical interest. Of the 66 variables for which both *PSM* and *PSA* values were published, only 61 of them were published weekly throughout 1998. For each variable, six measures of accuracy were calculated to compare the differences between the MFW and *PSM* values relative to the *PSA* values.

- **Error** is the difference between the estimate or interim value and the final value for a given month. For inputs, production, stock change, imports, exports, and product supplied, values are expressed in units of thousands of barrels per day. For stocks, values are expressed in units of thousands of barrels.

$$\text{MFW Error} = \text{MFW Volume} - \text{PSA Volume}$$

$$\text{PSM Error} = \text{PSM Volume} - \text{PSA Volume}$$

- **Percent Error** is the error for a given month divided by the final value for a given month, and multiplied by 100.

$$\text{MFW Percent Error} = \frac{\text{MFW Error}}{\text{PSA Volume}} \times 100$$

$$\text{PSM Percent Error} = \frac{\text{PSM Error}}{\text{PSA Volume}} \times 100$$

- **Mean absolute error** is the weighted average over the 12 months of the year of the absolute values of the errors for each month. The mean absolute error measures the average magnitude of the revisions that took place over a year. Outliers increase the mean absolute error. The number of days in the month is used for weighting all product categories except stocks. Stocks are weighted equally for each of the 12 months.
- **Mean absolute percent error** is the weighted average over the 12 months of the year of the absolute values of the percent errors. It provides a measure of the average magnitude of the revisions relative to final values. The mean absolute percent error has an inverse relationship with data accuracy; i.e., the smaller the mean absolute error, the closer the interim data are to the final data; conversely, the larger the mean absolute percent error, the greater the difference in the interim value and the final value. Outliers inflate the mean absolute percent error.
- **Range** is the difference between the smallest and largest percent errors. The range shows the dispersion of the percent differences between interim and final values.
- **Median** of the percent errors is the point at which half the values are higher and half are lower. Unlike the mean, the median is not affected by an outlier. In these analyses, each distribution has 12 observations. The median is the average of the sixth and seventh ordered observation.

The average final absolute volumes and the mean absolute percent error for MFW estimates and *PSM* interim values for 1998 and 1997 are presented in Table FE3. The average final absolute volumes are presented to give the reader an idea of the magnitude of these volumes. Variables with very small volumes are prone to larger percent changes because a modest volume change is being compared to a small final volume. The

mean absolute error and the size of the volumes involved must both be included in the interpretation of data accuracy.

The 1998 MFW mean absolute percent errors which were within 2 percent of their respective *PSA* values (21 of the 61 MFW series), and the 1998 *PSM* mean absolute percent errors which were within 1 percent of their *PSA* values (40 of the 66 *PSM* series), are distinguished by a single asterisk. Mean absolute percent errors that were greater than 10 percent are marked by a double asterisk. There were 14 such MFW series and 6 *PSM* series, which increased from 8 and 3, respectively, for 1997.

For 1998, 5 of the 11 weekly production series decreased in mean absolute percent error from 1997. Thirteen of the 14 production series have a single asterisk in the *PSM* column, indicating a mean absolute percent error of less than 1 percent from the *PSA*. Weekly fuel ethanol supply and disposition data are not available; therefore, the weekly oxygenated motor gasoline field production is based on the latest available monthly value.

The single asterisks in Table FE3 by the stock series show that, as in prior years, the stock values for both MFW estimates and *PSM* interim values are very close to the final *PSA* values. A major exception is the double asterisk shown by the MFW percent error for oxygenated motor gasoline stocks. The increase is related to the average absolute volume. Fuel ethanol and methyl tertiary butyl ether stocks are not collected weekly, but are collected on the Form EIA-819M, "Monthly Oxygenate Telephone Report." The survey provides production data and preliminary stock data from a sample of respondents reporting on the monthly surveys and from the universe of oxygenate producers. These data are displayed in Appendix D of the *PSM*. Interim data are collected later on the monthly surveys and published in the *PSM*. Only four of the 19 weekly stock series decreased in mean absolute percent error from 1997.

Stock change is the difference between stocks at the beginning of the month and stocks at the end of the month. Since the monthly change in stock levels is small compared to the stock levels themselves, a large percent error in stock change can occur even when the percent errors in stock levels are small.

Crude oil stock change is one of the components in the calculation of unaccounted for crude oil (calculated disposition minus calculated supply of crude oil). For both the MFW and the *PSM* numbers, the volume of the unaccounted for crude oil may be increased by a combination of factors including an understatement of imports, an overstatement of exports, an understatement of crude oil production, an understatement of stock withdrawals, and an overstatement of crude oil inputs. The overstatement of crude oil inputs can be caused by injections along crude oil pipelines of natural gas liquids. When refiners receive this mixture, they process it as crude oil. As seen in Table FE3, the production, imports, and refinery inputs of crude oil have a small mean absolute percent error

Table FE3. Summary Statistics for Differences Between Interim and Final Data, 1998 and 1997

Variable	PSA Average Absolute Volumes		Monthly-from-Weekly Mean Absolute Percent Error		PSM Mean Absolute Percent Error	
	1998	1997	1998	1997	1998	1997
Crude Oil Production (thousand barrels/day)	6,252	6,451	2.81	0.87	1.43	0.78
Refinery Operations						
Refinery Crude Oil Inputs (thousand barrels/day)	14,889	14,662	* 0.51	0.36	* 0.36	0.24
Operating Utilization Rate (percent)	96	95	* 0.61	1.24	* 0.33	0.28
Production (thousand barrels/day)						
Total Production	19,170	18,918	—	—	* 0.48	0.17
Refinery Production	17,030	16,759	* 1.43	1.82	* 0.46	0.16
Finished Motor Gasoline.....	8,082	7,870	* 0.87	0.83	* 0.54	0.18
Reformulated Motor Gasoline.....	2,483	2,406	* 1.52	1.98	* 0.72	0.86
Oxygenated Motor Gasoline	667	587	** 15.66	13.04	6.82	3.62
Other Motor Gasoline.....	4,932	4,877	2.26	1.81	* 0.88	0.40
Jet Fuel.....	1,526	1,554	* 1.28	1.25	* 0.47	0.41
Distillate Fuel Oil.....	3,424	3,392	* 1.76	1.50	* 0.31	0.27
Low Sulfur Distillate Fuel Oil	2,230	2,162	* 1.92	1.17	* 0.53	0.66
High Sulfur Distillate Fuel Oil	1,194	1,229	3.06	3.46	* 0.71	0.81
Residual Fuel Oil	762	708	3.70	3.96	* 0.64	0.39
Other Products	5,376	5,394	—	—	* 0.88	0.70
Propane	1,063	1,092	—	—	* 0.89	0.16
Other Products Refinery Production	3,427	3,362	7.62	7.86	* 0.84	0.13
Stocks (thousand barrels)						
Total Stocks	1,632,759	1,552,154	* 0.74	0.71	* 0.15	0.06
Total Stocks, excl. SPR	1,068,193	988,701	* 1.07	1.12	* 0.23	0.10
Total Crude Stocks.....	895,328	874,713	* 0.69	0.27	* 0.20	0.07
Crude Oil Stocks, excl. SPR.....	330,762	311,260	* 1.72	0.77	* 0.55	0.21
SPR Stocks	564,566	563,453	* 0.12	0.00	* 0.00	0.00
Refined Products Stocks	737,431	677,441	* 1.76	1.41	* 0.12	0.07
Total Motor Gasoline Stocks	214,782	200,295	* 1.13	0.77	* 0.21	0.12
Reformulated Motor Gasoline Stocks	44,089	39,759	* 1.65	3.51	* 0.74	0.40
Oxygenated Motor Gasoline Stocks	1,028	957	** 27.21	26.70	* 0.19	14.23
Other Motor Gasoline Stocks.....	124,574	117,448	2.29	1.30	* 0.25	0.20
Jet Fuel Stocks.....	43,829	42,162	2.24	1.29	* 0.20	0.84
Distillate Fuel Oil Stocks.....	140,800	120,913	2.16	1.75	* 0.47	0.24
Low Sulfur Distillate Fuel Oil Stocks	69,430	63,474	2.34	1.91	* 0.99	0.45
High Sulfur Distillate Fuel Oil Stocks.....	71,369	57,439	2.53	2.27	* 0.41	0.24
Residual Fuel Oil Stocks	40,483	38,604	2.06	1.70	* 0.59	0.22
Other Products Stocks.....	297,539	275,468	2.24	2.39	* 0.21	0.18
Propane Stocks.....	56,227	44,947	2.79	2.34	* 0.53	0.29
Fuel Ethanol Stocks.....	3,278	2,866	** 13.72	6.46	8.69	0.62
Methyl Tertiary Butyl Ether Stocks	8,941	8,920	5.35	7.64	* 0.86	1.40
Stock Change (thousand barrels/day)						
Total Stock Change	492	587	**178.96	73.10	** 41.10	7.60
Crude Stock Change	379	309	**135.90	45.20	** 66.12	9.51
Refined Products Stock Change	405	504	**162.62	82.79	** 17.46	17.15
Imports (thousand barrels/day)						
Total Imports	10,708	10,162	3.65	3.01	3.03	2.46
Total Crude Imports.....	8,706	8,226	2.92	2.63	1.80	2.72
Crude Oil Imports, excl. SPR.....	8,706	8,226	2.92	2.63	1.80	2.72
SPR Imports.....	0	0	* 0.00	0.00	* 0.00	0.00
Refined Products Imports.....	2,002	1,936	9.25	5.62	8.46	1.35
Finished Motor Gasoline Imports.....	311	309	9.57	6.20	4.33	2.32
Reformulated Motor Gasoline Imports.....	179	161	** 14.98	9.05	7.59	2.99
Oxygenated Motor Gasoline Imports	0	0	* 0.00	0.00	* 0.00	0.00
Other Motor Gasoline Imports.....	132	148	9.82	16.05	7.57	2.27
Jet Fuel Imports.....	124	91	** 37.74	9.33	** 35.02	2.22

See footnotes at end of table.

Table FE3. Summary Statistics for Differences Between Interim and Final Data, 1998 and 1997 (Continued)

Variable	PSA Average Absolute Volumes		Monthly-from-Weekly Mean Absolute Percent Error		PSM Mean Absolute Percent Error	
	1998	1997	1998	1997	1998	1997
Distillate Fuel Oil Imports.....	210	228	6.27	6.89	7.28	0.66
Low Sulfur Distillate Fuel Oil Imports.....	119	103	** 18.84	7.90	6.13	4.34
High Sulfur Distillate Fuel Oil Imports.....	91	125	** 21.79	9.65	** 10.59	3.71
Residual Fuel Oil Imports.....	275	194	** 19.68	11.91	** 25.64	3.35
Other Products Imports.....	1,082	1,114	6.55	8.67	2.84	2.01
Propane Imports.....	138	113	—	—	* 0.20	12.67
Exports (thousand barrels/day)						
Total Exports.....	945	1,003	** 12.71	8.08	1.35	0.02
Crude Oil Exports.....	110	108	** 54.75	71.94	* 0.00	0.03
Refined Products Exports.....	835	896	** 10.23	8.13	1.62	0.02
Total Net Imports (thousand barrels/day).....	9,764	9,158	4.06	2.93	3.18	2.72
Products Supplied (thousand barrels/day)						
Total Products Supplied.....	18,917	18,620	* 1.29	1.36	1.24	0.27
Finished Motor Gasoline Supplied.....	8,253	8,017	* 1.10	0.73	* 0.79	0.23
Jet Fuel Supplied.....	1,622	1,598	4.13	1.97	3.10	0.84
Distillate Fuel Oil Supplied.....	3,461	3,435	* 1.86	2.18	* 0.84	0.37
Residual Fuel Oil Supplied.....	887	797	9.01	6.54	7.80	0.88
Other Products Supplied.....	4,693	4,773	2.63	3.77	* 0.99	0.59
Propane Supplied.....	1,120	1,170	—	—	1.30	1.21

— = Not Applicable.

* = For MFW values, mean absolute percent error less than or equal to 2; for PSM values, mean absolute percent error less than or equal to 1.

** = Mean absolute percent error greater than or equal to 10.

SPR = Strategic Petroleum Reserve

Notes: •Error is the difference between Monthly-from-Weekly estimates or interim monthly data published in the *Petroleum Supply Monthly* and the final value as published in the *Petroleum Supply Annual*. Percent error is the error multiplied by 100 and divided by the final published value. Mean absolute error is the weighted average of the absolute errors. Mean absolute percent error is the weighted average of the absolute percent errors. The number of days in the month is used for weighting all product categories except stocks. Stocks are weighted equally for each of the 12 months. •Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Petroleum Supply Reporting System.

relative to crude oil stock change. There was a large increase in mean absolute percent error for 1998 MFW and PSM values relative to 1997 due to corrections of misreported data.

For petroleum products, stock change is a component in the calculation of product supplied (representing the consumption of petroleum products). Unlike the other variables, stock change values can be negative. Stock change thus has an added dimension by which to evaluate accuracy; this is the correctness of the direction of the change. Table FE4 provides a measure of accuracy of the direction of MFW and PSM stock change values for 1998 and 1997. Four out of the six stock change values for 1998 increased the number of months that differed from the direction of the PSA values. The direction of MFW refined products stock change was the only category that improved from 1997 to 1998.

Table FE4. Number of Months In Which the Direction of Non-Final Stock Change Values Differed From PSA

	Number of Months	
	1998	1997
Total Stock Change		
MFW and PSA Values.....	3	1
PSM and PSA Values.....	1	0
Crude Stock Change		
MFW and PSA Values.....	2	1
PSM and PSA Values.....	1	0
Refined Products Stock Change		
MFW and PSA Values.....	1	3
PSM and PSA Values.....	0	0

Source: Energy Information Administration, Petroleum Supply Reporting System.

For imports, one reason for the large mean absolute percent errors in the MFW values is that shipments do not always arrive during the week in which they were expected. This has a greater impact when the end of the month occurs in the middle of the week. Ten of the 15 MFW import series in Table FE3 showed an increase in mean absolute percent error from 1997 to 1998 compared to last year's increase of only three series from 1996 to 1997. For the *PSM*, 11 of the 16 import series increased in mean absolute percent error compared to last year's increase of 7 import series.

With the exception of refinery receipts in the Virgin Islands, EIA does not collect export data. They are gathered by the U.S. Customs Service on a monthly basis and are compiled by the U.S. Bureau of the Census. They are received by EIA on a monthly basis approximately 7 weeks after the close of the reporting month. The weekly estimates for exports are projections based on past monthly data. Because the export data are highly variable, it is difficult to obtain estimates of comparable quality to domestic estimates.

Products supplied is the calculation of field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude oil losses, minus refinery inputs, minus exports. Therefore, the accuracy of products supplied is affected by the individual components.

Box and Whisker Plots

Example 1 in the shaded box titled "Structure of Box and Whisker Plots," is a simplified illustration of the box and whisker plots that follow. The box and whisker plots map the 5-year trends in historical accuracy of weekly estimates and monthly interim values. The details provided by the box and whisker plots include: historical trends, the range of monthly percent errors, direction of the error (i.e., overestimation or underestimation), and the identification of unusual values.

Each box and whisker plot is placed on a graph, where the horizontal axis represents the year and the vertical axis represents the percent error. The center horizontal line for all the box and whisker plots is zero percent error. For each variable studied, a pair of charts, each containing five box and whisker plots (one for each year, from 1994 through 1998), are presented side-by-side; the chart on the left contains the percent errors for the MFW estimates, and the chart on the right contains the percent errors for the *PSM* values. To facilitate the comparison of MFW percent errors and the *PSM* percent errors, the plots have the same scale.

The position of the box along the y-axis denotes whether the MFW or *PSM* values are predominantly overestimates or underestimates of the *PSA* values. For example, if the majority of the MFW values were overestimates, more than half of the box would be above the zero percent error line.

Crude Oil Production and Crude Oil Inputs

Crude oil production data are not collected through any of EIA's surveys. EIA's Dallas Field Office assembles data collected from State agencies responsible for measuring crude oil production. Based on historical trends and data reported on Form EIA-182, "Domestic Crude Oil First Purchase Report," EIA estimates weekly and monthly production. Final estimates based on revised Form EIA-182 data, State government agencies, and U.S. Department of Interior, Minerals Management Service data, are published in the *PSA*. Figure FE3 presents errors of MFW and *PSM* values relative to *PSA* values for crude oil production and crude oil inputs. Prior to 1998, both MFW and *PSM* crude oil production values have been quite close to the *PSA* values. The range of the 1998 MFW percent errors, from -2.31 to 8.81 percent, was the largest range for the 5 years studied and September 1998 (8.81) had the largest percent error over the 60-month period. Similarly, the range for the 1998 *PSM* percent errors was also the largest over the 5-year period, from -1.74 to 4.84 percent. September 1998 (4.84) had the largest percent error over the 60-month period and was an outlier due to reporting problems. In contrast to prior years, most of the 1998 *PSM* values overestimated the final *PSA* values.

For 1998, most of the MFW percent errors for refinery crude oil inputs were within 1 percent of the final values. The 1998 range of 1.71 percent was the smallest of all other 1998 MFW plots analyzed. Prior to 1998, the *PSM* refinery crude oil inputs have been extremely close to their final values. For 1998, the range of 1.50 percent was the largest over the 5-year period and May 1998 (-1.42) had the largest absolute percent error over the 60-month period. The outlier in May was due to reporting problems.

Product Production

As expected, *PSM* interim values for production of each of the four major petroleum products were superior to their comparable MFW estimates. Figures FE4 and FE5 contain the box and whisker plots for motor gasoline and distillate fuel oil production, and residual fuel oil and jet fuel production, respectively.

The 1998 MFW motor gasoline production percent errors, displayed in Figure FE4, had the largest range (4.88) over the 5-year period. An outlier in February (2.45) was due to revisions, some of which were caused by computer problems at reporting companies. Similarly, the 1998 *PSM* percent errors had the largest range (2.15) for the 5-year period and May 1998 (-2.03) was the largest absolute percent error over the 60-month period.

In prior years, most of the distillate fuel oil production MFW values overestimated the final values; whereas, in 1998, all of the MFW values overestimated the final values. As in prior years, *PSM* interim values for distillate fuel oil production were close to the final *PSA* values. Although the 1998 *PSM* percent errors had the largest range (1.62) over the 5-year period, 59 of

Structure of Box and Whisker Plots

All box and whisker plots discussed in this article are the visual presentation of a variable's distribution of 12 values of percent errors for either MFW or PSM values relative to PSA values for a given year. In general, box and whisker plots group data, ordered from smallest to largest, into four areas of equal frequency, quartiles, and show the range and dispersion of data within the quartiles. Sometimes the values of quartiles must be interpolated, i.e., if there are two values that meet the criteria of a quartile, then the average of the two must be taken. Presented below is a discussion of components of box and whisker plots and how they apply to the 12-value distribution illustrated in Example 1: -35, -20, -11, -9, 0, 0, 0, 0, 4.5, 5.5, 15, and 20.

- **First Quartile**

Twenty-five percent of the values are equal to or below the first quartile. In Example 1, the first quartile is the average of the third and fourth ordered observations, i.e., $(-11+(-9))/2=-10$. The first quartile demarcates the lower boundary of the box.

- **Second Quartile**

The second quartile is the median, and it intersects the box. Fifty percent of the observations are equal to or below the median; in our example, the values of these six observations are: 0, 0, -9, -11, -20, and -35. Also, for this example, the median is the average of the sixth and seventh value, 0, i.e., $(0+0)/2$. The plot provides the value of the median (the second quartile) as well as information on how the median compares in magnitude to the rest of the observations. Outliers distort the magnitude of the mean, whereas a median is not distorted since it is the actual value that falls in the middle of the distribution. Since outliers have occurred in the distributions of values of PSRS variables, a median is preferred to a mean when assessing accuracy.

- **Third Quartile**

Seventy-five percent of the observations (9 in this case) have values equal to or below the third quartile. In Example 1, the third quartile is 5, i.e., $(4.5+5.5)/2$. The third quartile demarcates the upper boundary of the box.

- **Box**

The box contains half of all the values. In Example 1, as well as in each box found in Figures FE3-FE11, a minimum of six values are contained within the box. The interquartile range is the length of the box, the difference between the first and third quartiles. The interquartile range for Example 1 is 15, i.e., $5-(-10)$.

- **Whiskers**

Each whisker extends out from the box, one from the first quartile and the other from the third quartile, to the most extreme value that still falls within 1.5 times the interquartile range. In Example 1, a whisker extends from the third quartile, 5, to 20, which is the maximum value and is within 1.5 interquartile ranges of 5 (as it is less than $5+(1.5*15)=27.5$). Also in Example 1, the lower whisker extends from the first quartile -10, to -20, which is the lowest value of the distribution within 1.5 interquartile ranges of the first quartile.

- **Fourth Quartile**

The fourth quartile is the maximum value of the distribution. In Example 1, the fourth quartile, 20, also demarcates the upper value of the top whisker as it is within 1.5 interquartile ranges of the third quartile.

- **Outlier**

An outlier, identified as an asterisk, is an observation that is more than 1.5 interquartile ranges greater than the third quartile, or more than 1.5 interquartile ranges less than the first quartile. In Example 1, there is one outlier, -35. It is less than the lower whisker's threshold value, which is -32.5 $(-10-(1.5*15))$. The importance of the occurrence of an outlier depends on the distribution of the variable. If the interquartile range is very tight and the outlier is in close proximity, then there is little concern about the occurrence of that outlier. (See Figure FE3, MFW vs PSA of Crude Oil Production for 1997.)

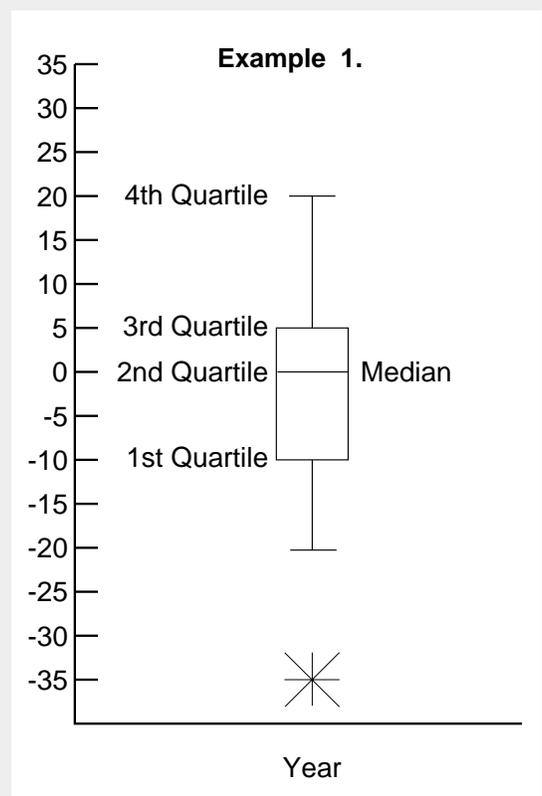
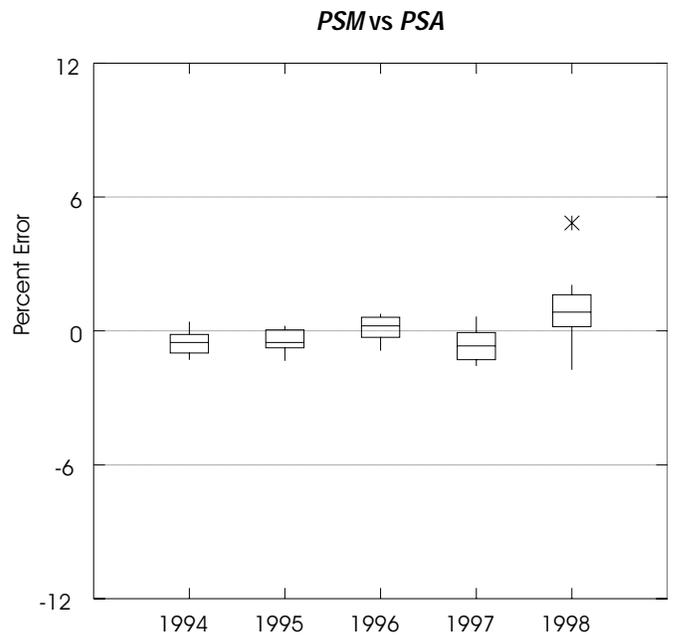
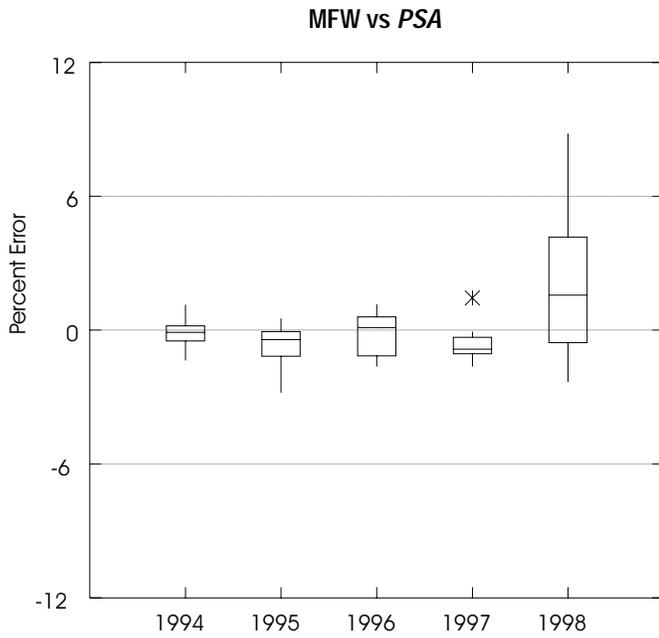
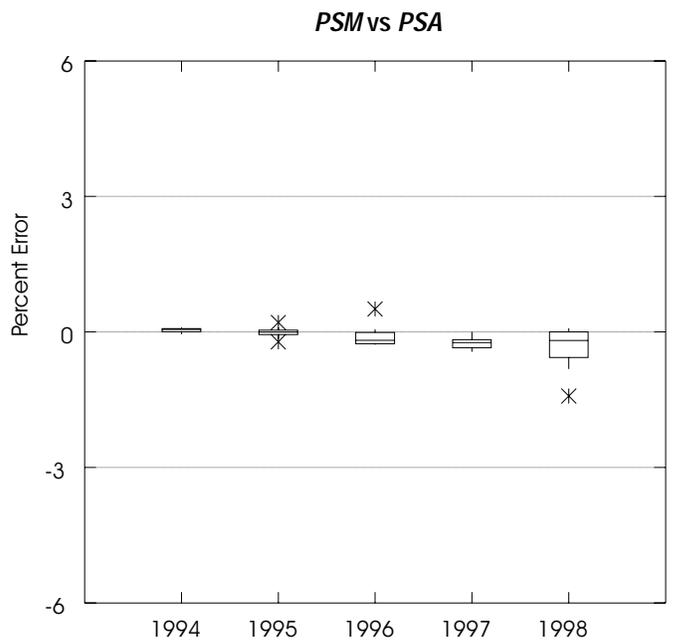
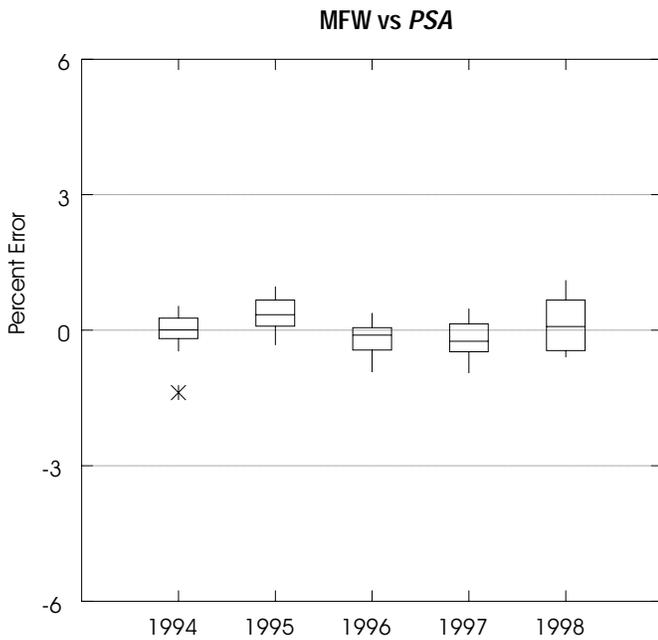


Figure FE3. Range of Percent Errors for MFW and PSM Crude Oil Production and Refinery Crude Oil Inputs Data, 1994 - 1998

Crude Oil Production



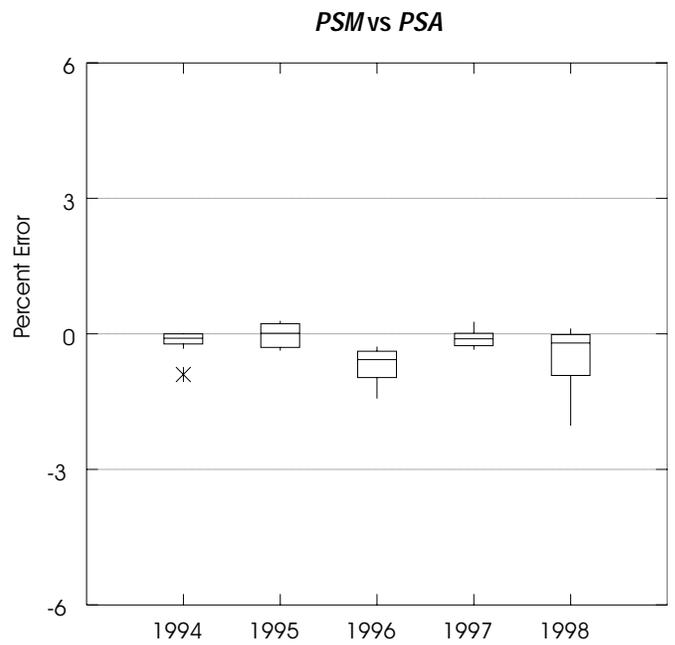
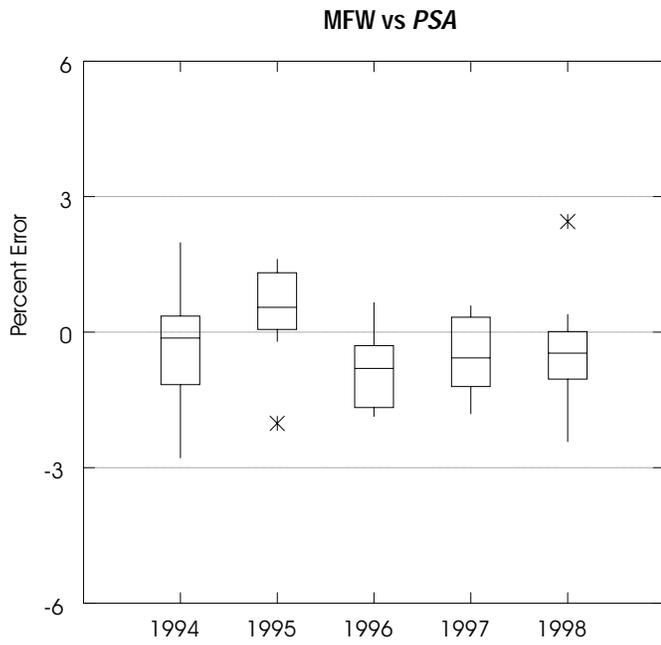
Refinery Crude Oil Inputs



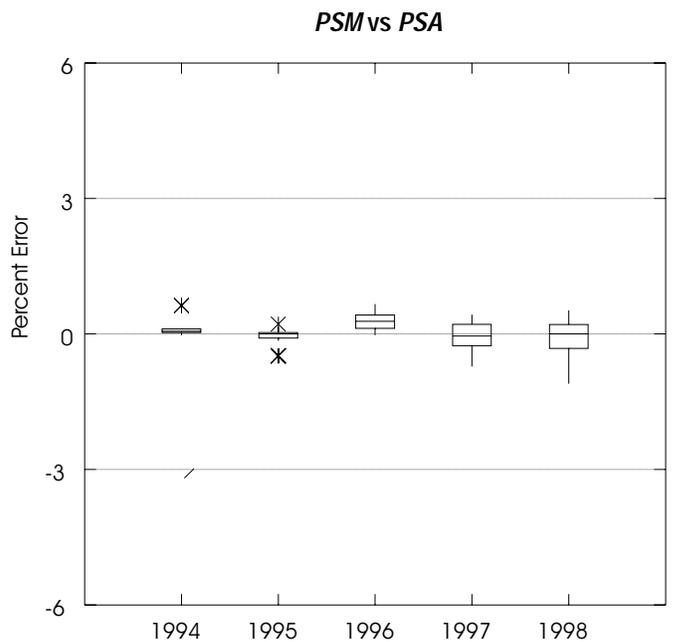
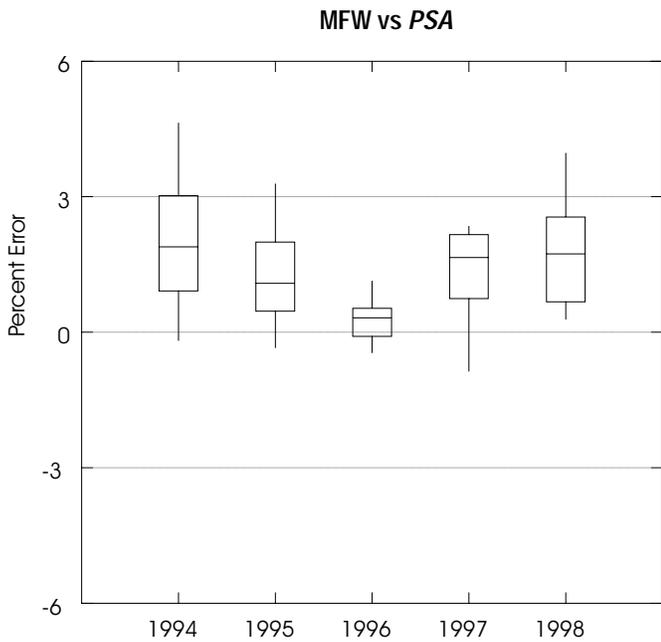
Source: Energy Information Administration, Petroleum Supply Reporting System.

Figure FE4. Range of Percent Errors for MFW and PSM Motor Gasoline and Distillate Fuel Oil Production Data, 1994 - 1998

Motor Gasoline Production



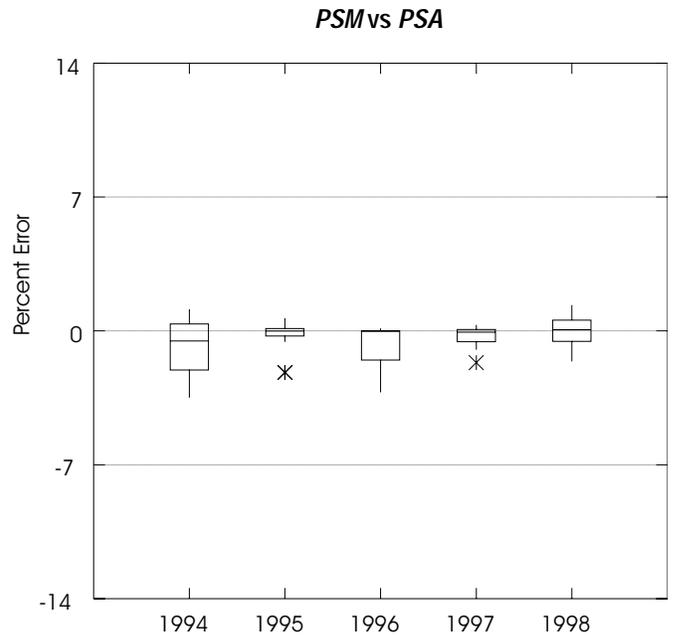
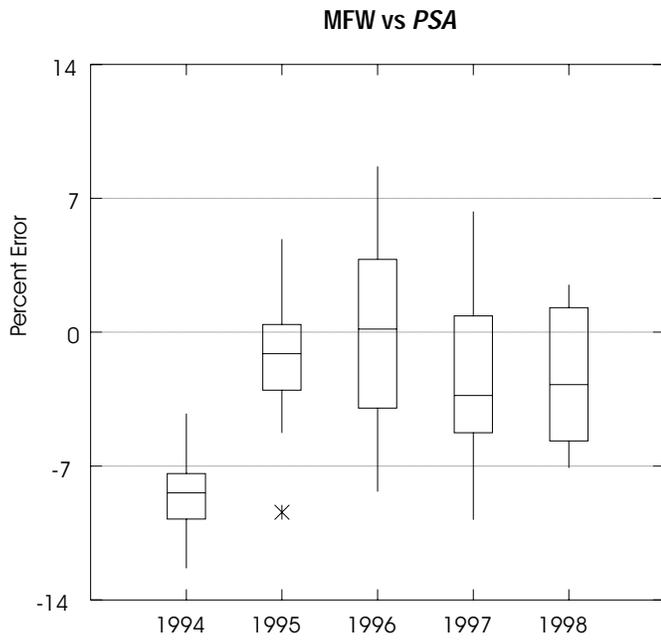
Distillate Fuel Oil Production



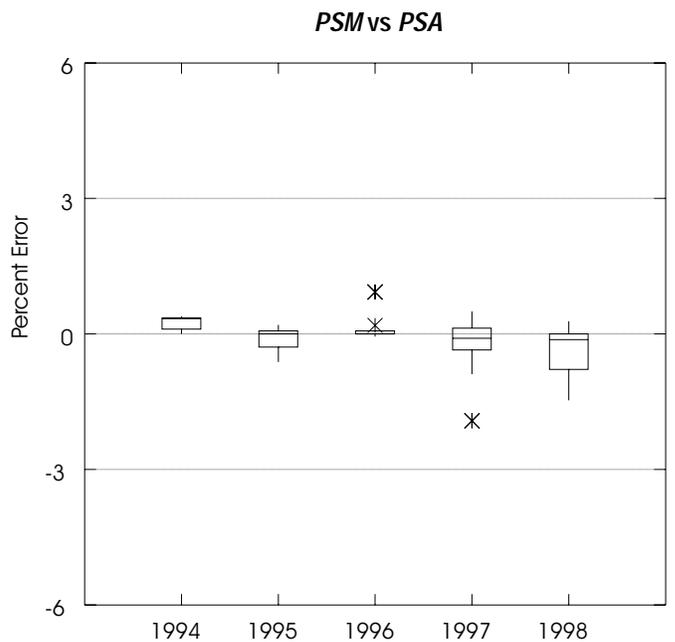
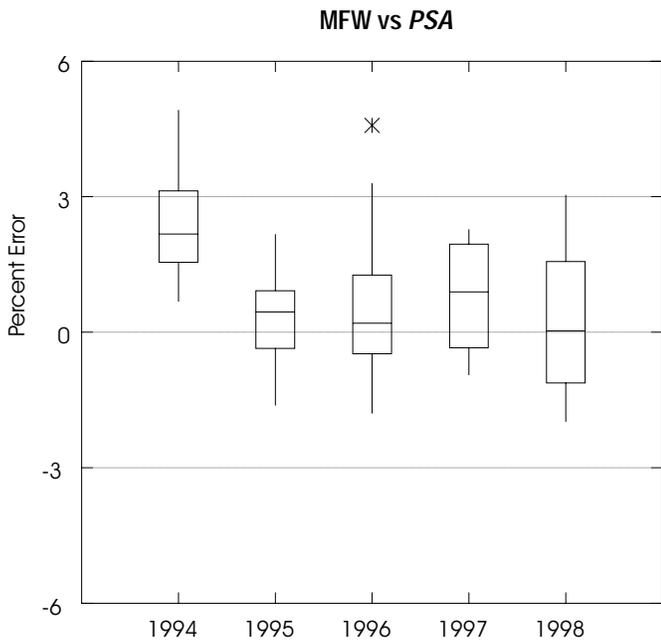
Source: Energy Information Administration, Petroleum Supply Reporting System.

Figure FE5. Range of Percent Errors for MFW and PSM Residual Fuel Oil and Jet Fuel Production Data, 1994 - 1998

Residual Fuel Oil Production



Jet Fuel Production



Source: Energy Information Administration, Petroleum Supply Reporting System.

the last 60 months have been within 1 percent of the final *PSA* values. The *PSM* percent error for May 1998 (-1.10) was the only month with an absolute value greater than 1 percent.

The box and whisker plots for residual fuel oil production and jet fuel production are shown in Figure FE5. The 1998 distribution of MFW percent errors for residual fuel oil production ranged from -7.09 to 2.48 percent. The 1998 *PSM* percent errors were distributed consistently about the median of 0.07 percent.

The 1998 MFW median (0.03) for jet fuel production was the smallest over the 5-year period and the percent errors ranged from -1.98 to 3.04 percent. Most of the 1998 *PSM* interim values for jet fuel production underestimated the final *PSA* values.

Stocks

Figures FE6, FE7, and FE8 show the yearly distribution of percent errors for stocks of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, and propane. Figure FE6 shows the box and whisker plots for crude oil stocks and motor gasoline stocks. The 1998 range (5.89) of MFW percent errors for crude oil stocks was the largest over the 5-year period, ranging from -2.01 to 3.88 percent. The MFW percent error for August 1998 (3.88) was the largest over the 60 months studied. Most of the 1998 *PSM* interim values were overestimates and were within 1 percent of the *PSA*. The 1998 median (0.43) was the largest positive median over the 5-year period.

Similar to 1997, all but one of the MFW estimates for motor gasoline stocks were underestimated. All of the *PSM* percent errors were within 0.42 percent and the median was close to zero. The 1998 range (0.80) for the *PSM* percent errors was the smallest of all other 1998 *PSM* plots analyzed.

Figure FE7 shows box and whisker plots for distillate and residual fuel oil stocks. In contrast to prior years, all of the MFW estimates for 1998 distillate fuel oil stocks were underestimates. Most of the *PSM* interim values overestimated the final *PSA* values. Compared to prior years, the 1998 *PSM* percent errors had the largest range (2.16), ranging from -0.10 to 2.06 percent. June 1998 (2.06) had the largest percent error over the past 60 months, resulting in an outlier due to reporting problems.

Residual fuel oil stocks typically have larger percent errors than other stock series. Most of the 1998 MFW percent errors were underestimates, ranging from -5.62 to 1.08 percent. The distribution of 1998 *PSM* percent errors was tightly grouped around the median of -0.09 percent. The two outliers occurred in November (-2.23) and December (-1.68) due to reporting problems for those months.

The box and whisker plots for jet fuel stocks and propane stocks are shown in Figure FE8. For 1998, the percent errors for jet fuel stocks ranged from -5.58 to 0.97 percent. June 1998 (-5.58) had the largest absolute percent error over the 60-month period. All of

the 1998 *PSM* percent errors were within 0.60 percent of the *PSA* values. Most of the percent errors were tightly distributed about the median of 0.12 percent except for the outliers in February, March, and June due to reporting problems.

In contrast to prior years, most of the 1998 MFW propane stocks overestimated the *PSA* values. The 1998 median of 1.56 percent was the first positive median for the 5-year period. An outlier in February (-7.88) was due to reporting problems. For the 1998 *PSM* percent errors, the range of 2.43 percent was the largest over the 5-year period. Over the past 60 months studied, February 1998 (-1.71) had the largest absolute percent error.

Imports

Figures FE9, FE10, and FE11 show the yearly distributions of percent errors for the imports of crude oil and four products: motor gasoline, distillate fuel oil, residual fuel oil, and jet fuel. Because of the irregularity of imports for crude oil and petroleum products, the magnitude and range of percent errors for both the MFW and the *PSM* imports numbers can be expected to be much larger and wider than for production and stocks.

Figure FE9 shows that the median (-2.47) for the 1998 MFW estimates of crude oil imports had the largest absolute percent error over the 5-year period. The MFW range (10.29) was the smallest range for all import plots analyzed. Similar to last year, all of the *PSM* interim values underestimated the final *PSA* values. The 1998 range of 4.81 percent was the largest range over the 5-year period and April (-5.14) had the largest absolute percent error over the 60-month period. The April outlier was due to incomplete reporting.

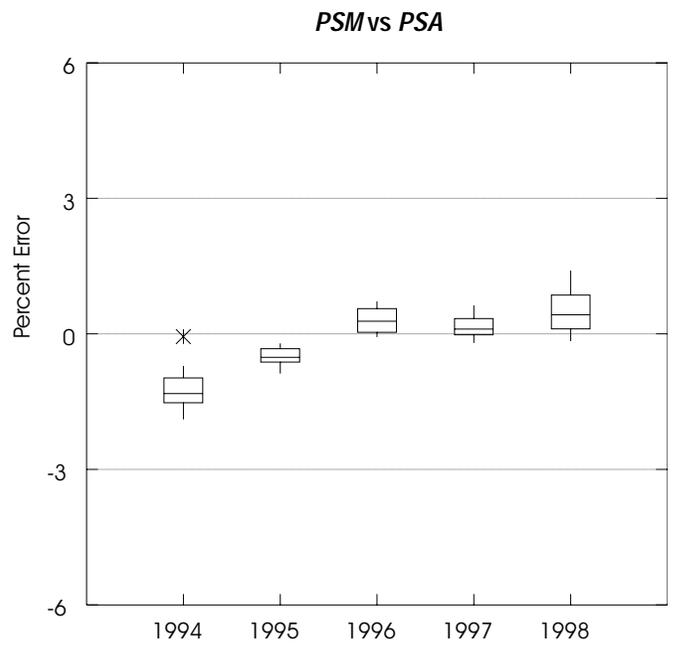
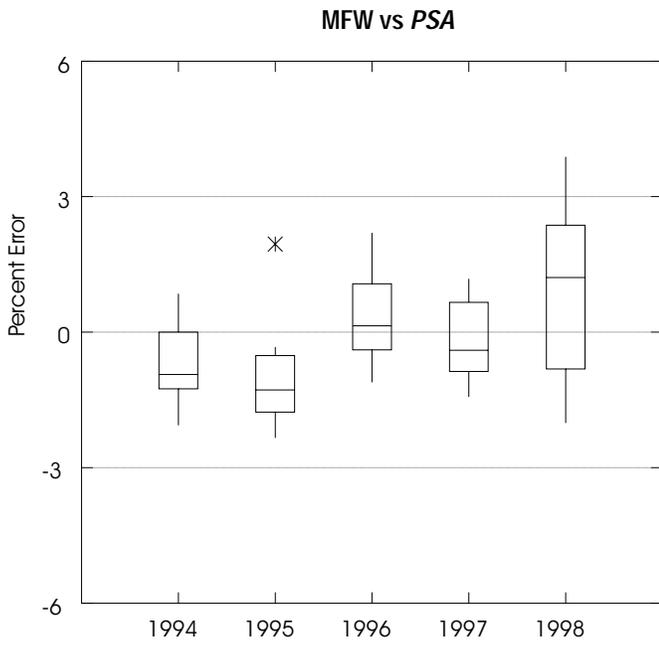
The distributions of percent errors of the MFW estimates and *PSM* interim values for 1994 through 1998 of motor gasoline and distillate fuel oil imports are shown in Figure FE10. The 1998 MFW median (-1.07) for motor gasoline imports was the closest to zero over the past 5 years. Most of the 1998 *PSM* interim values were underestimates. April 1998 (-13.95) had the largest absolute percent error over the 60-month period.

As in prior years, most of the 1998 MFW estimates for distillate fuel oil imports were underestimated. The three outliers in March, April, and October were due to reporting problems. In contrast to prior years, all of the 1998 *PSM* interim values underestimated the final *PSA* values. The 1998 median of -6.31 percent had the largest absolute percent error for the 5 years analyzed. November 1998 (-15.08) had the largest absolute percent error over the past 60 months.

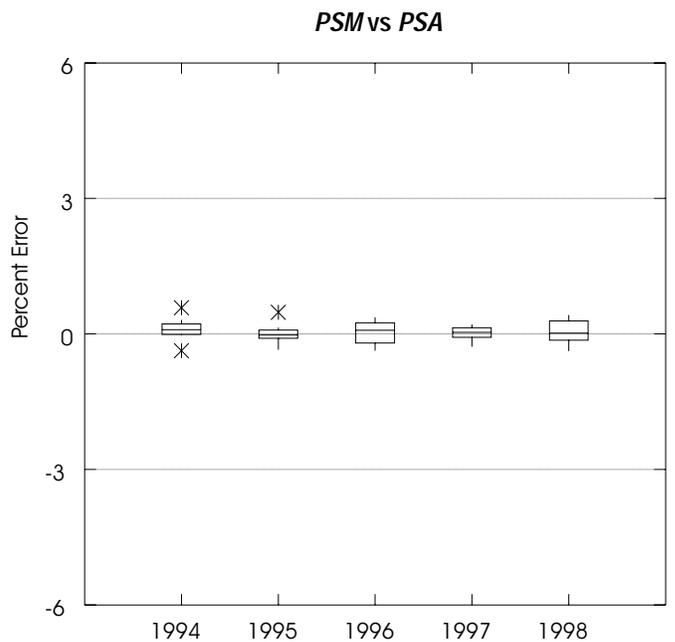
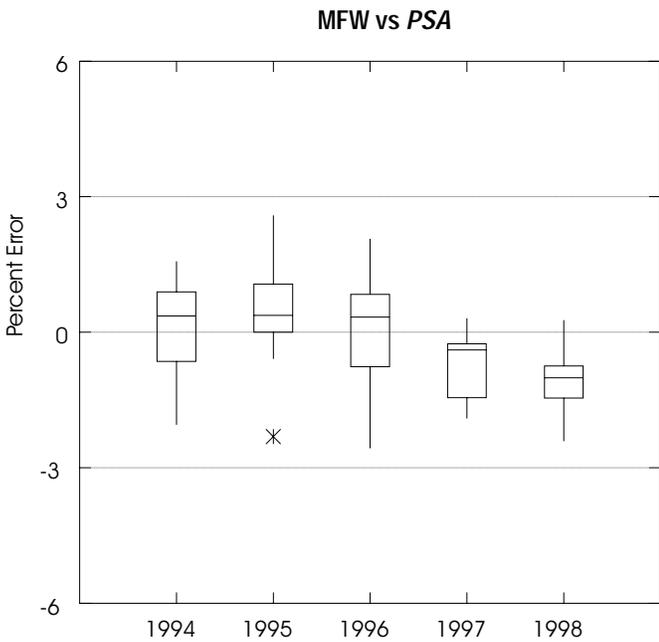
Figure FE11 shows the box and whisker plots for residual fuel oil imports and jet fuel imports. Most of the 1998 MFW estimates for residual fuel oil imports were underestimates. The 1998 MFW median (-16.75) was the largest absolute percent error over the 5-year period and July 1998 (-39.10) had the largest absolute percent error over the 60-month period. The range (49.65) of the MFW residual fuel oil percent errors was the largest of all MFW

Figure FE6. Range of Percent Errors for MFW and PSM Crude Oil Stocks Excluding Strategic Petroleum Reserve (SPR) and Motor Gasoline Stocks Data, 1994 -1998

Crude Oil Stocks Excluding SPR



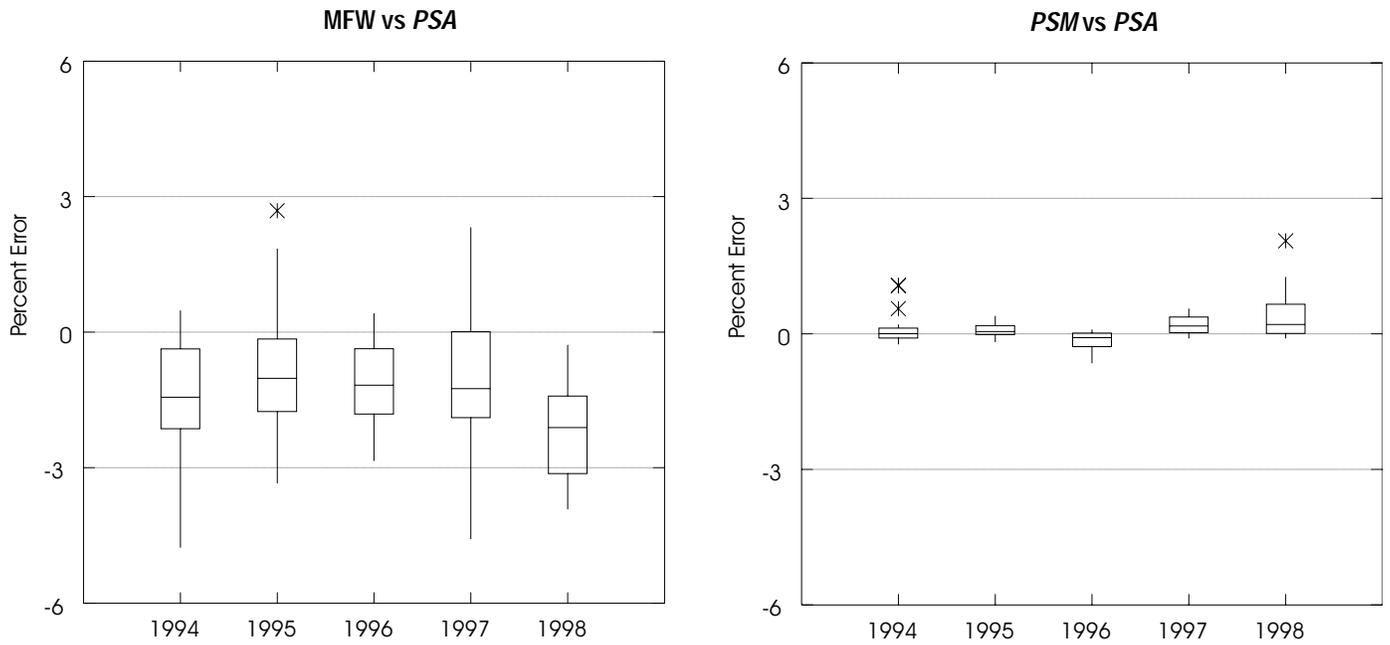
Motor Gasoline Stocks



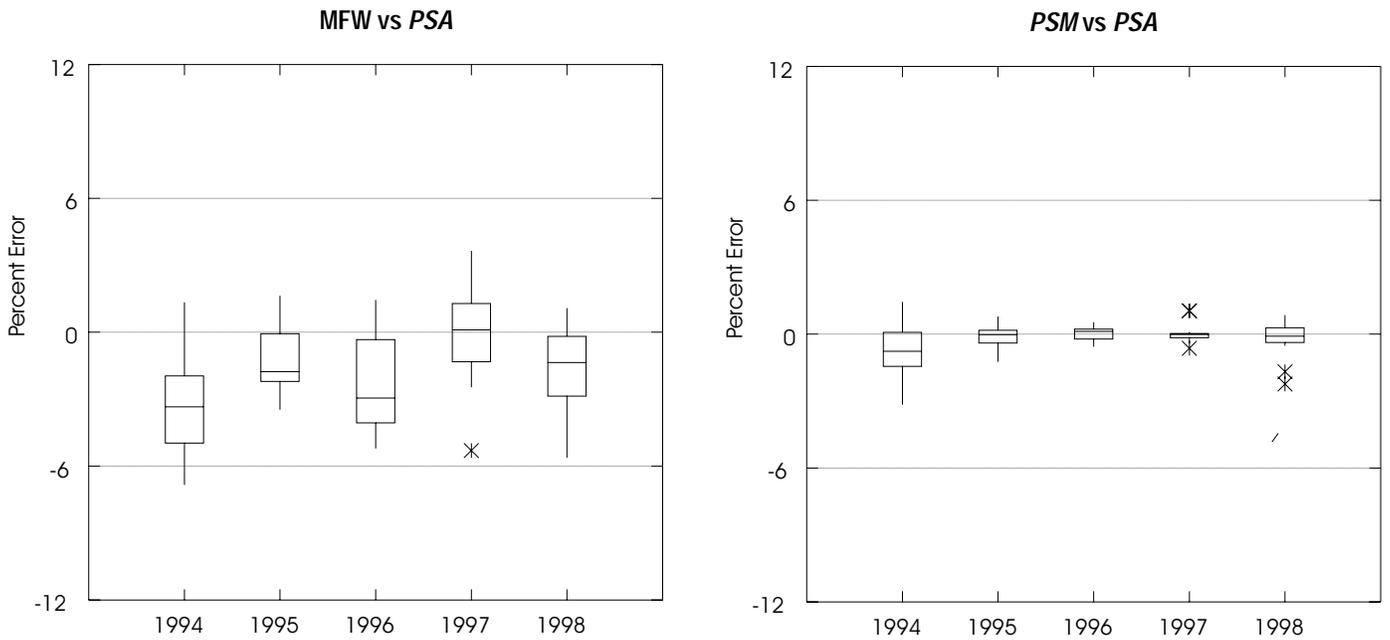
Source: Energy Information Administration, Petroleum Supply Reporting System.

Figure FE7. Range of Percent Errors for MFW and PSM Distillate Fuel Oil and Residual Fuel Oil Stocks Data, 1994 - 1998

Distillate Fuel Oil Stocks



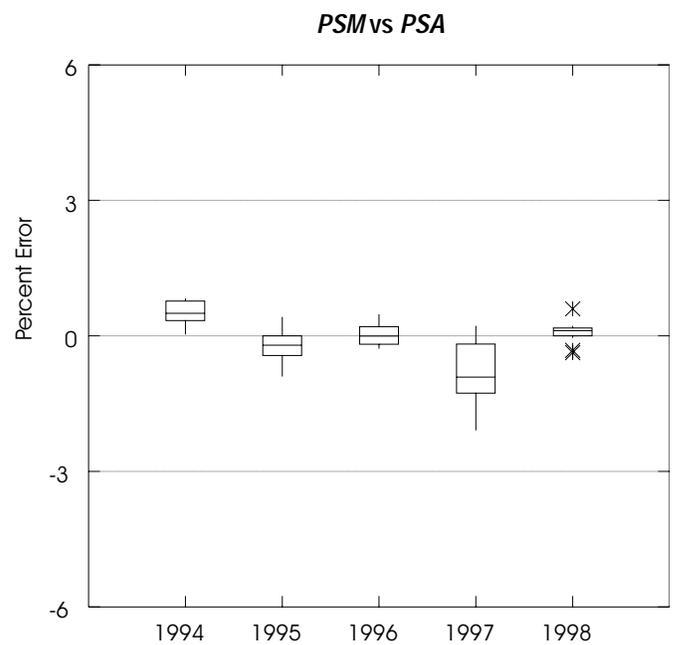
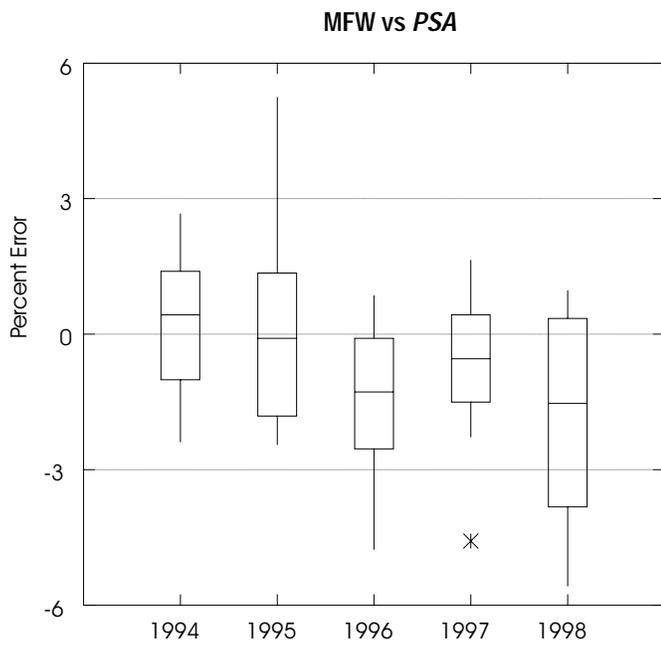
Residual Fuel Oil Stocks



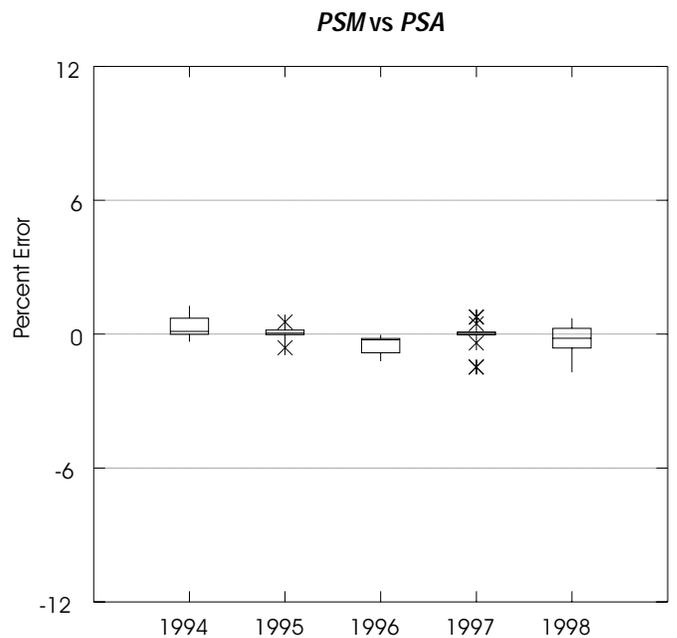
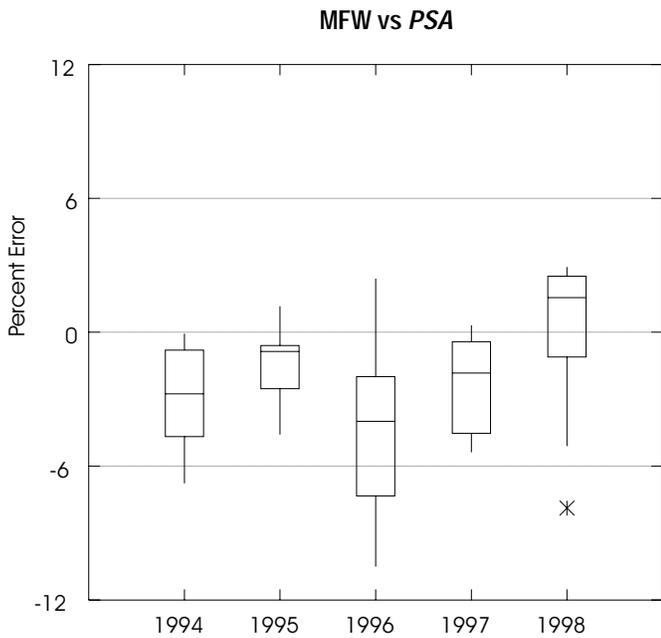
Source: Energy Information Administration, Petroleum Supply Reporting System.

Figure FE8. Range of Percent Errors for MFW and PSM Jet Fuel Stocks and Propane Stocks Data, 1994 - 1998

Jet Fuel Stocks

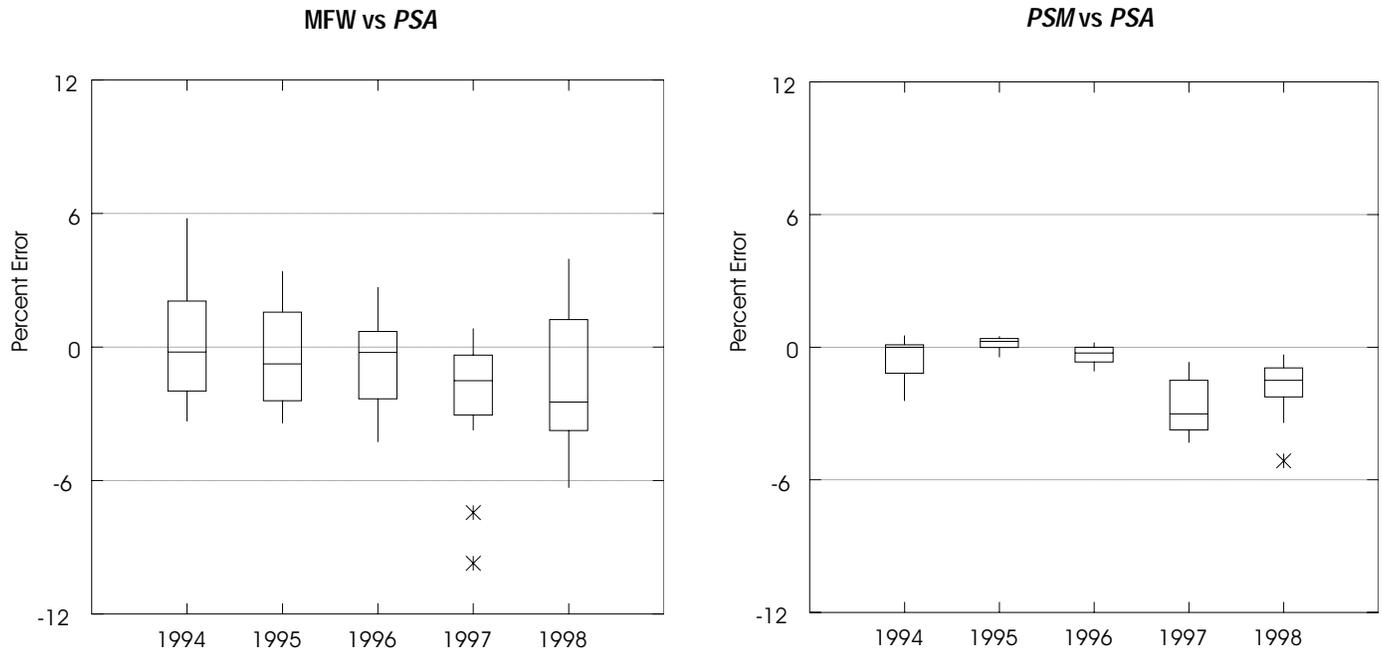


Propane Stocks



Source: Energy Information Administration, Petroleum Supply Reporting System.

Figure FE9. Range of Percent Errors for MFW and PSM Crude Oil Imports Excluding SPR Data, 1994 - 1998



Source: Energy Information Administration, Petroleum Supply Reporting System.

plots analyzed in 1998. In contrast to prior years, all of the 1998 *PSM* interim values underestimated the final *PSA* values. July 1998 (-36.97) had the largest absolute percent error for the 60 months studied.

In contrast to prior years, all of the 1998 *MFW* percent errors for jet fuel imports underestimated the final *PSA* values. The median (-37.81) of the 1998 percent errors was the largest absolute percent error for the 5 years and July 1998 (-61.54) had the largest absolute percent error over the 60-month period. Similar to the 1998 *MFW* estimates, all of the 1998 *PSM* interim values underestimated the final values. The range (40.36) was the largest over the 5-year period and the largest of all other 1998 *PSM* plots analyzed. July 1998 (-61.54) also had the largest absolute percent error for the past 60 months. The underestimates for 1998 *MFW* and *PSM* values were due to additional companies being included in the *PSA* values.

Conclusion

In summary, similar to previous years, the interim *PSM* data were closer in value to the final *PSA* volumes than the *MFW* estimates. This is largely a result of the longer time period provided to process the monthly data and monthly respondents' accounting systems.

In 1998, 40 of 66 *PSM* interim values were within 1 percent (mean absolute percent error) of the final values; 21 of 61 *MFW* estimates were within 2 percent (mean absolute percent error) of the final values; and 8 of those 21 were within 1 percent. As in previous years, the accuracy of 1998 preliminary and interim values varied

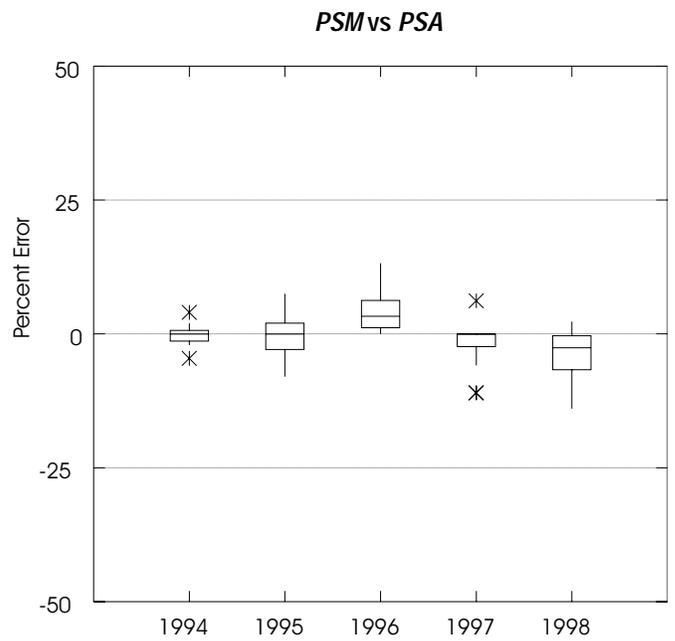
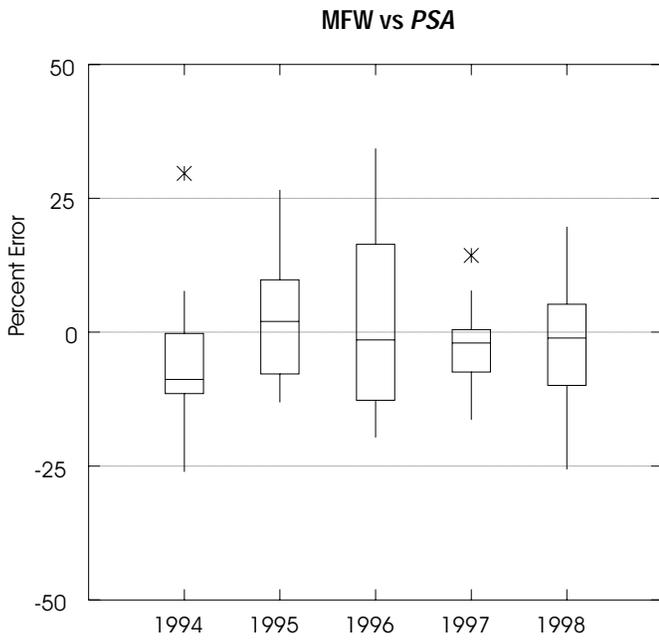
by product and by petroleum supply type. As a group, stocks continued to have the most accurate *MFW* estimates and *PSM* interim values.

The good coverage for weekly surveys across petroleum supply type and product combinations has contributed to the accuracy of weekly estimates. In 1998, for 19 of the 21 categories, coverage was 90 percent or above. The decreases in response rates from 1997 for the weekly and monthly surveys were the result of budget cuts at the respondent companies, company mergers, and new company accounting systems that initially made reporting difficult. These factors may have contributed to a decline in the accuracy of these data.

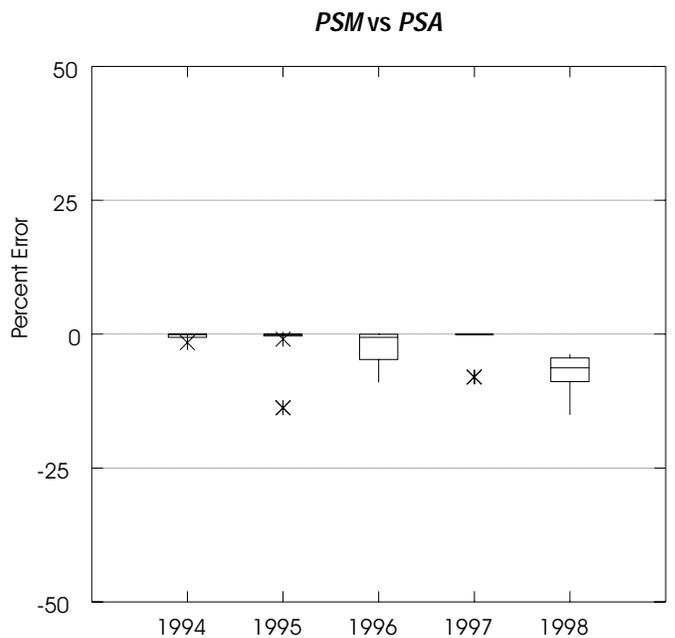
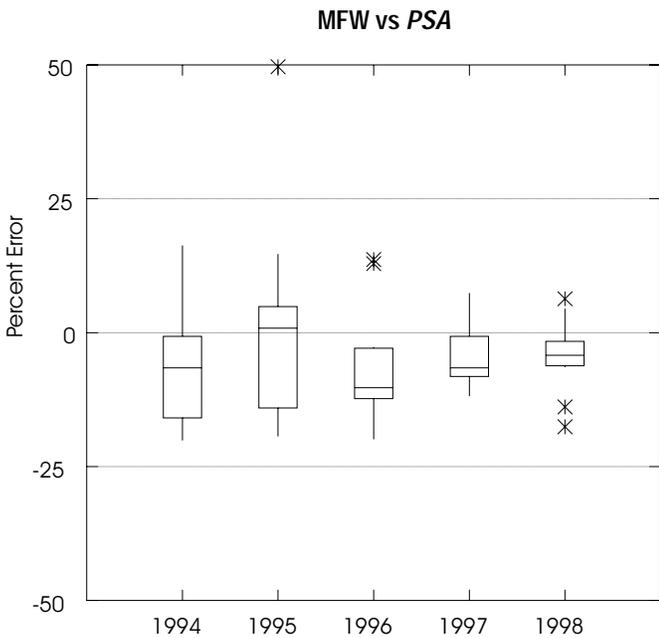
To successfully maintain and improve the accuracy of these data, the PD is participating in several new initiatives including the development of a nonresponse follow-up team, increased efforts to insure compliance with reporting requirements, and the development of a new and improved data collection and processing system, the Common Collection and Processing System (CCAPS) and Master Universe Database (MUD), that will upgrade and unify legacy systems by incorporating state-of-the-art technology; continuation of customer outreach; improvement of the Windows version of PEDRO, the electronic data collection method; and continuation of efforts to improve survey design and methodology, graphical data validation, and the automated data retrieval system, Survey Information System (SIS). The PD has certified that all of its systems are Y2K compliant. The results of these efforts should enable the PD to continue to provide accurate weekly and monthly data estimates.

Figure FE10. Range of Percent Errors for MFW and PSM Motor Gasoline and Distillate Fuel Oil Imports Data, 1994 - 1998

Motor Gasoline Imports



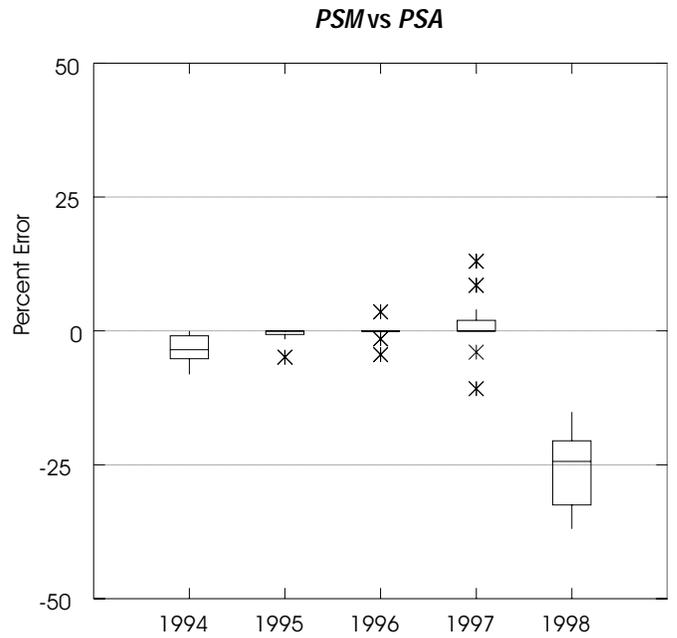
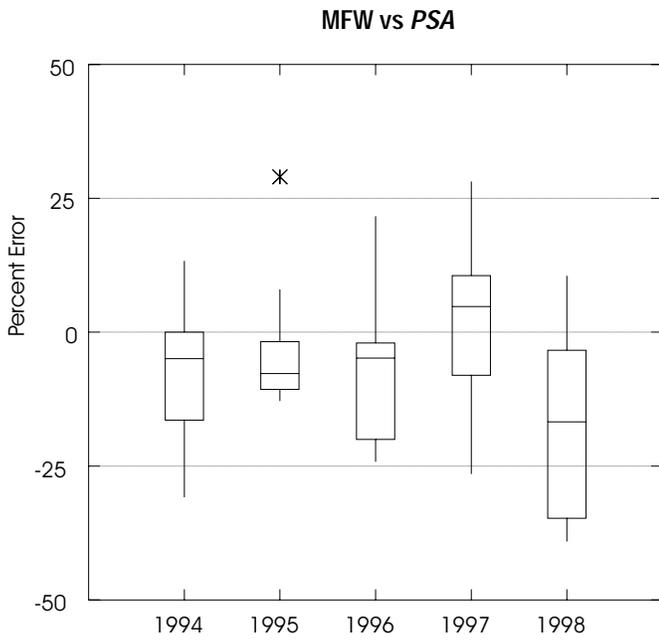
Distillate Fuel Oil Imports



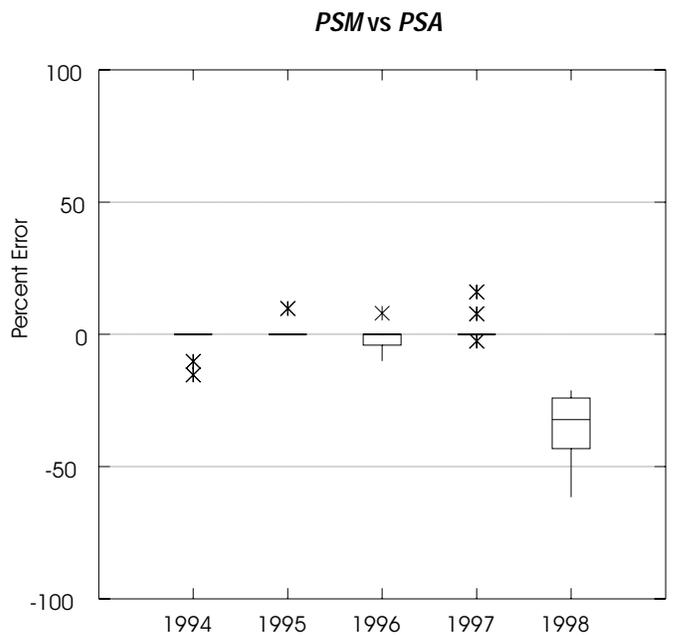
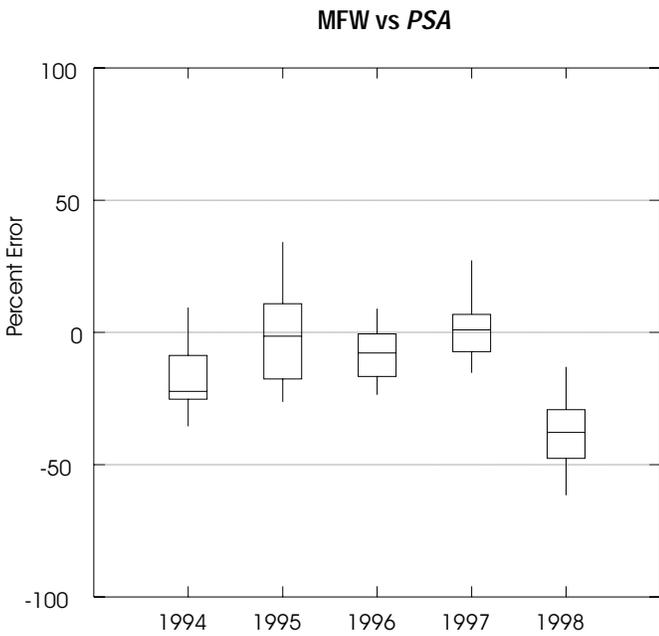
Source: Energy Information Administration, Petroleum Supply Reporting System.

Figure FE11. Range of Percent Errors for MFW and PSM Residual Fuel Oil and Jet Fuel Imports Data, 1994 - 1998

Residual Fuel Oil Imports



Jet Fuel Imports



Source: Energy Information Administration, Petroleum Supply Reporting System.

Comparisons of Independent Petroleum Supply Statistics

by Robert G. Harper, III

Introduction

The Petroleum Division (PD) of the Energy Information Administration (EIA) collects and publishes information on petroleum supply and disposition in the United States. The information is collected through a series of surveys that make up the Petroleum Supply Reporting System (PSRS). The PSRS data are published in the *Weekly Petroleum Status Report (WPSR)*, *Petroleum Supply Monthly (PSM)*, and the *Petroleum Supply Annual (PSA)*.

This article compares final petroleum data published in the *PSA* with similar petroleum data obtained from other sources. Data comparisons are presented for 1989 through 1998 for the following series: crude oil production, crude oil imports, motor gasoline supplied, distillate fuel oil supplied, and residual fuel oil supplied. Graphs were added in order to better portray the data similarities and data differences.

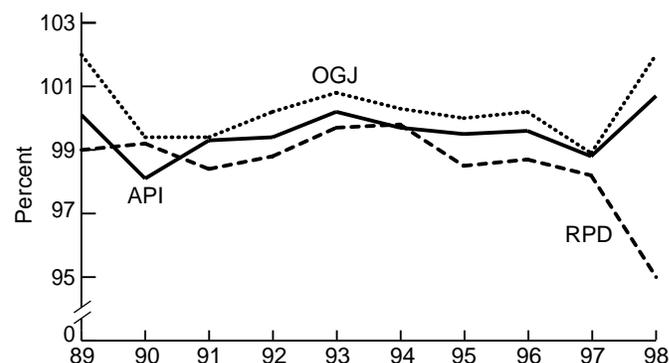
Crude Oil Production

Crude oil production statistics (including those for lease condensate) from the American Petroleum Institute (API), the *Oil and Gas Journal (OGJ)*, and EIA's Reserves and Production Division (RPD) are compared with statistics from the *Petroleum Supply Annual (PSA)* (Table FE1/Figure FE1). Data on crude oil

production published in the *PSA* are based on data collected by State government agencies as well as the Minerals Management Service (MMS) of the U.S. Department of the Interior, which collects data on crude oil produced on Federally-owned offshore leases.

Production estimates from API are also based on data provided by State government agencies. From 1989 through 1998, API crude

Figure FE1. A Comparison of Crude Oil Production, 1989-1998 (As a Percent of PSA)



Source: Energy Information Administration, *Petroleum Supply Annual*, Table FE1.

Table FE1. A Comparison of Data Series for Crude Oil Production, 1989-1998

Year	PSA	API		OGJ		RPD	
	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1998	2,282	2,298	100.7	2,327	102.0	2,169	95.0
1997	2,355	2,326	98.8	2,330	98.9	2,312	98.2
1996	2,366	2,356	99.6	2,370	100.2	2,335	98.7
1995	2,394	2,382	99.5	2,393	100.0	2,358	98.5
1994	2,431	2,424	99.7	2,438	100.3	2,425	99.8
1993	2,499	2,504	100.2	2,520	100.8	2,492	99.7
1992	2,625	2,608	99.4	2,630	100.2	2,593	98.8
1991	2,707	2,687	99.3	2,692	99.4	2,665	98.4
1990	2,685	2,634	98.1	2,668	99.4	2,663	99.2
1989	2,779	2,781	100.1	2,834	102.0	2,751	99.0

Sources: PSA: *Petroleum Supply Annual*, 1989 through 1998, Table 2. API: American Petroleum Institute, *Monthly Statistical Report*, 1989 through 1998. OGJ: *Oil and Gas Journal*, 1989 through 1998. RPD: *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves Annual Report*, Crude Oil, 1989 through 1998, Table 6; Lease Condensate, 1989, Table 15; 1990 through 1998, Table 16.

oil production statistics averaged within 0.66 percent of the *PSA* volumes. From 1997 to 1998, the API data difference decreased from 1.2 percent below *PSA* numbers to 0.7 percent above *PSA* statistics.

Crude oil production estimates developed by the *Oil and Gas Journal* (OGJ) are based on data obtained from State conservation agencies and on historical State production levels. In 1997, OGJ statistics were 1.1 percent below *PSA* statistics, but, in 1998, OGJ difference rose to 2.0 percent above. For the 10-year period 1989 through 1998, the average absolute difference was 0.78 percent.

The RPD publishes the *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves Annual Report*. These crude oil production estimates are based on data from Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves." In 1998, data were received from a sample survey of 3,344 oil and gas well operators. The RPD's national production estimates for the 1998 data were 4.4 percent lower than comparable *PSA* volumes versus 1.8 percent lower than 1997 *PSA* volumes. However, over the 10-year period 1989 through 1998, the RPD and *PSA* statistics have remained in relatively close agreement, with an average absolute difference of only 1.5 percent.

The comparison of these data series does not show any major discrepancies between the four independent sources. However, minor differences could be due to revisions and late reporting by State agencies, the Minerals Management Service, and also by oil and gas well operators, which do not provide data or resubmissions.

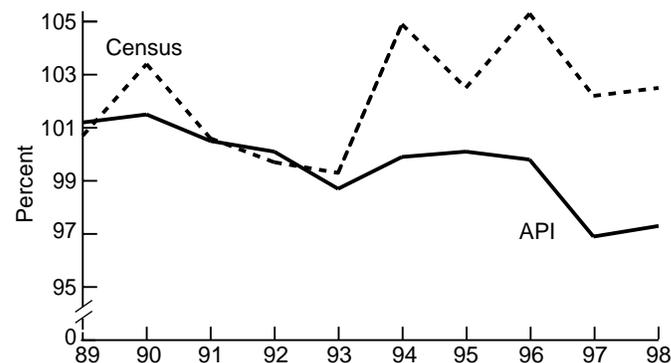
Crude Oil Imports

Data on crude oil imports are collected on survey Form EIA-814, "Monthly Imports Report." Survey respondents to the form include all companies that import crude oil or petroleum products into the United States, Puerto Rico, the Virgin Islands, and other

U.S. possessions. However, for comparison purposes, statistics on imports into Puerto Rico, the Virgin Islands, and other U.S. possessions are excluded from this analysis. Approximately 185 respondents report on the Form EIA-814. The *PSA* statistics are compared with API and the U.S. Bureau of the Census (Census) statistics on crude oil imports (Table FE2/Figure FE2).

Since the API data on crude oil imports does not include crude oil imported by the Strategic Petroleum Reserve (SPR), data from the *PSA* on volumes of crude oil imported for the SPR were added to API data for comparison purposes. (See "Information on Data Source Differences and Adjustments," located on page xxxvi). In 1997, there was a 3.1 percent the difference between API and *PSA* statistics; however, in 1998, the difference had decreased to 2.7 percent. Over the 10-year period 1989 through 1997, the average absolute difference was 1.1 percent. For the second consecutive year, annual crude oil imports rose above the 3 billion barrel mark for the *PSA* data.

Figure FE2. A Comparison of Crude Oil Imports, 1989-1998 (As a Percent of *PSA*)



Source: Energy Information Administration, *Petroleum Supply Annual*, Table FE2.

Table FE2. A Comparison of Data Series for Crude Oil Imports into United States (Excluding U.S. Possessions), 1989-1998

Year	PSA	API ^a		Census ^b	
	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1998	3,178	3,092	97.3	3,258	102.5
1997	3,002	2,909	96.9	3,069	102.2
1996	2,748	2,743	99.8	2,894	105.3
1995	2,639	2,642	100.1	2,705	102.5
1994	2,578	2,576	99.9	2,704	104.9
1993	2,477	2,445	98.7	2,459	99.3
1992	2,226	2,229	100.1	2,220	99.7
1991	2,111	2,122	100.5	2,124	100.6
1990	2,151	2,184	101.5	2,224	103.4
1989	2,133	2,158	101.2	2,147	100.7

^aAPI statistics include *PSA* statistics for crude oil imported for the Strategic Petroleum Reserve.

^bCensus statistics are adjusted to reflect the geographic coverage and reporting period of the *PSA*.

Sources: *PSA*: *Petroleum Supply Annual*, 1989 through 1998, Table 2. API: American Petroleum Institute, *Monthly Statistical Report*, 1989 through 1998. Census: Bureau of the Census, FT-246, *Annual U.S. Imports for Consumption and General Imports*, 1989 through 1998.

The Bureau of the Census obtains data on crude oil imports from the U.S. Customs Service. (See "Information on Data Source Differences and Adjustments," located on page xxxvi). In order to import crude oil or petroleum products into the United States, either U.S. Customs Form CF-7501, "Entry Summary," or U.S. Customs Form CF-7505, "Warehouse Withdrawal for Consumption," must be filed. Those forms are processed, tabulated, and published in Census Bureau report FT-246, *Annual U.S. Imports for Consumption and General Imports*. Data on imports into Puerto Rico and other U.S. possessions are excluded from Census data. The Census data are adjusted for comparison purposes because their geographic coverage differs from that for the PSA data. In 1998, the adjusted Census data were 2.5 percent higher than the PSA annual volumes. The difference represents only a 0.3 percent increase over 1997 data, although the reason for the decrease is not readily apparent.

Product Supplied

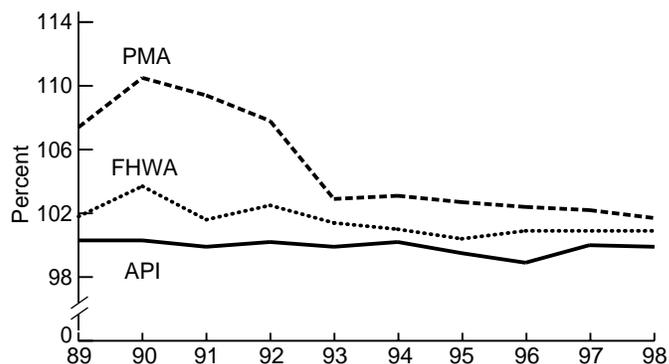
Product supplied, as reported in the PSA, is used to measure the volume of petroleum products available for domestic consumption. These data are generated for each petroleum product by adding field production, refinery production, and imports minus (-) stock change, refinery inputs, and exports. Product supplied measures the disappearance of products from primary sources, i.e., from refineries, natural gas processing plants, blending plants, pipelines, and bulk terminals.

Motor Gasoline Supplied

PSA statistics on motor gasoline supplied are compared with data from the EIA's Petroleum Division's marketing surveys, the American Petroleum Institute (API), and the Federal Highway Administration (FHWA) (Table FE3/Figure FE3). PD Form EIA-782C, "Monthly Report of Prime Supplier Sales Volumes of Petroleum Products for Local Consumption," is used to monitor

prime suppliers' sales to local distributors, local retailers, or end users. These data are published in the *Petroleum Marketing Annual* (PMA) and are available electronically after 1994. The respondent universe consists of refiners and gas plant operators, importers, and resellers or retailers. Approximately 202 firms made up the EIA-782C survey frame. In 1998, the PMA volume of motor gasoline was 1.7 percent above the PSA volume, a 0.5 percent decrease from 1997. Downstream blending is one major reason that PMA volumes for motor gasoline may be higher than PSA volumes. Blending of fuel ethanol and methyl tertiary butyl ether with unfinished gasoline often occurs downstream from refineries and, until 1993, may have been counted in the EIA-782C data, but omitted from the PSA data. Prior to 1993, double counting on the EIA-782C survey may have also contributed to the discrepancy between survey results. Since then, improved operating procedures have sharply reduced this problem. For the 10-year period 1989 through 1998, the average difference between PSA and PMA data was 5.0 percent.

Figure FE3. A Comparison of Motor Gas Supplied, 1989-1998 (As a Percent of PSA)



Source: Energy Information Administration, *Petroleum Supply Annual*, Table FE3.

Table FE3. A Comparison of Data Series for Motor Gasoline Supplied for Domestic Use, 1989-1998

Year	PSA		PMA		API		FHWA	
	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA	
1998	3,012	3,064	101.7	3,008	99.9	3,039	100.9	
1997	2,926	2,991	102.2	2,927	100.0	2,952	100.9	
1996	2,888	2,958	102.4	2,856	98.9	2,913	100.9	
1995	2,843	2,919	102.7	2,829	99.5	2,854	100.4	
1994	2,774	2,861	103.1	2,780	100.2	2,801	101.0	
1993	2,729	2,807	102.9	2,725	99.9	2,768	101.4	
1992	2,660	2,867	107.8	2,666	100.2	2,726	102.5	
1991	2,623	2,870	109.4	2,621	99.9	2,665	101.6	
1990	2,641	2,919	110.5	2,650	100.3	2,739	103.7	
1989	2,675	2,873	107.4	2,683	100.3	2,722	101.8	

Sources: PSA: *Petroleum Supply Annual*, 1989 through 1998, Table 2. PMA: *Petroleum Marketing Annual*, 1989 through 1993, Table 47; 1994 through 1998, Table 48. API: American Petroleum Institute, *Monthly Statistical Report*, 1989 through 1998. FHWA: Federal Highway Administration, *Highway Statistics*, 1989 through 1998, Tables MF-24 and MF-21.

API statistics on motor gasoline delivered from primary storage are published in their *Monthly Statistical Report*. The API statistics are similar in concept to EIA's product supplied. The data represent production plus imports for motor gasoline (adjusted for net stock change) minus exports. Those statistics are based on an historical analysis of the industry and information provided on a voluntary basis by importers of record (licensed importers) and by operators of refineries, bulk terminals, and pipelines. For the 10-year period 1989 through 1998, API and *PSA* statistics averaged within 0.3 percent of each other.

Data from the FHWA on total gasoline usage are based on volumes of gasoline reported to State motor fuel tax agencies by wholesale distributors. The FHWA's publication "*Highway Statistics*" includes data on both highway and non-highway use of gasoline. To adjust for comparison purposes, aviation gasoline use is subtracted from the FHWA data by the EIA. FHWA statistics are consistently higher than the *PSA* statistics. However, since 1996, the difference between FHWA and *PSA* statistics has remained at 0.9 percent. For the 10-year period 1989 through 1998, the average difference between *PSA* and FHWA data was 1.5 percent.

Distillate Fuel Oil Supplied

Statistics for distillate fuel oil (including kerosene) supplied from the *PSA* are compared with EIA's *PMA* data on distillate fuel oil sales collected from survey Form EIA-782C, "Monthly Report of Prime Supplier Sales Volumes of Petroleum Products for Local Consumption; Form EIA-821 "Annual Fuel Oil and Kerosene Sales Report;" (FOKS) and API data on distillate fuel oil delivered from primary storage (Table FE4/Figure FE4). Data on kerosene were discontinued in API's *Monthly Statistical Report*. To adjust for this, kerosene volumes from the *PSA* were added to API data for comparison purposes. API statistics on distillate fuel oil supplied generally have been comparable to *PSA* statistics, having averaged within 1.7 percent of each other for the last ten years.

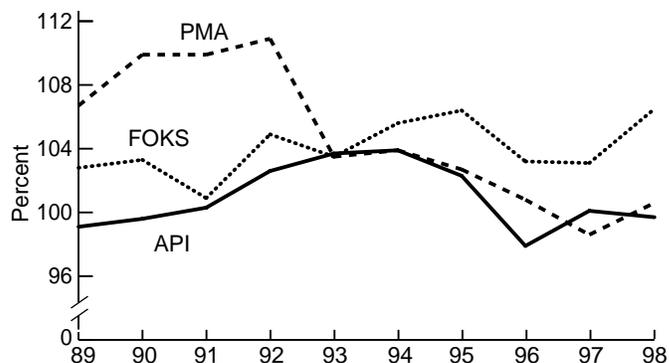
Table FE4. A Comparison of Data Series for Distillate Fuel Oil (including Kerosene) Supplied, 1989-1998

Year	PSA		PMA		FOKS		API ^a	
	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1998	1,263	100.6	1,270	100.6	1,345	106.5	1,259	99.7
1997	1,278	98.6	1,260	98.6	1,318	103.1	1,279	100.1
1996	1,254	100.8	1,264	100.8	1,294	103.2	1,228	97.9
1995	1,170	102.7	1,202	102.7	1,245	106.4	1,197	102.3
1994	1,154	103.9	1,199	103.9	1,219	105.6	1,199	103.9
1993	1,128	103.5	1,167	103.5	1,168	103.5	1,170	103.7
1992	1,090	110.9	1,209	110.9	1,140	104.9	1,118	102.6
1991	1,083	109.9	1,190	109.9	1,093	100.9	1,086	100.3
1990	1,118	109.9	1,229	109.9	1,155	103.3	1,114	99.6
1989	1,183	106.7	1,262	106.7	1,216	102.8	1,172	99.1

^aAPI statistics include *PSA* statistics for kerosene for 1989 through 1998.

Sources: *PSA*: *Petroleum Supply Annual*, 1989 through 1998, Table 2. *PMA*: *Petroleum Marketing Annual*, 1989 through 1993, Table 49; 1994 through 1998, Table 50. *Fuel Oil and Kerosene Sales Report*, 1989 through 1998. API: American Petroleum Institute, *Monthly Statistical Report*, 1989 through 1998.

Figure FE4. A Comparison of Distillate Supplied, 1989-1998 (As a Percent of PSA)



Source: Energy Information Administration, *Petroleum Supply Annual*, Table FE4.

The Fuel Oil And Kerosene Sales Report provides data on end-use sales of distillate fuel oil and kerosene. For the 10-year period 1989 through 1998, the average difference between *PSA* and FOKS data was 4.0 percent.

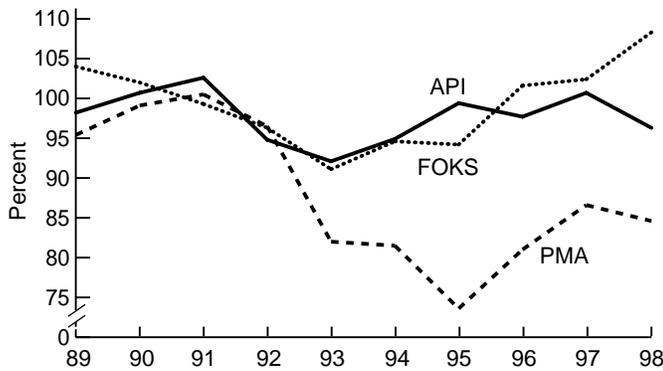
Until recently, the *PMA* statistics for prime suppliers' sales of distillate fuel oil and kerosene sold into States for consumption had been consistently higher than the *PSA* statistics. However, following a 1.4 percent decrease, between *PMA* and *PSA* data in 1997, there was only a 0.6 percent increase in 1998. For the last 10 years, the average absolute difference between *PSA* and *PMA* data was 5.0 percent. Double reporting on the EIA-782C survey is one reason that *PMA* sales are higher than *PSA* product supplied for distillate fuel oil prior to 1993. Another reason is the fungible nature of petroleum products. For example, if a product produced according to kerosene-type jet fuel specifications is sold as No. 1 distillate or kerosene, then the EIA-782C total distillate volumes would be greater than those of the *PSA*.

Table FE5. A Comparison of Data Series for Residual Fuel Oil Supplied for Domestic Use, 1989-1998

Year	PSA	PMA		FOKS		API	
	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1998	324	274	84.6	351	108.3	312	96.3
1997	291	252	86.6	298	102.4	293	100.7
1996	311	252	81.0	316	101.6	304	97.7
1995	311	229	73.6	293	94.2	308	99.4
1994	373	304	81.5	353	94.6	354	94.9
1993	394	323	82.0	359	91.1	363	92.1
1992	401	387	96.5	386	96.3	380	94.8
1991	423	425	100.5	420	99.3	434	102.6
1990	449	445	99.1	458	102.0	452	100.7
1989	500	477	95.4	520	104.0	491	98.2

Sources: PSA: *Petroleum Supply Annual*, 1989 through 1998, Table 2. PMA: *Petroleum Marketing Annual*, 1989 through 1993, Table 48; 1994 through 1998, Table 49. *Fuel Oil and Kerosene Sales Report*, 1989 through 1998. API: American Petroleum Institute, *Monthly Statistical Report*, 1989 through 1998.

Figure FE5. A Comparison of Residual Supplied, 1989-1998 (As a Percent of PSA)



Source: Energy Information Administration, *Petroleum Supply Annual*, Table FE5.

Residual Fuel Oil Supplied

Product supplied data from the *PSA* for residual fuel oil are compared with *PMA* data on prime suppliers' sales of residual fuel oil, Form-821 Annual Fuel Oil and Kerosene Sales, and API data on residual fuel oil delivered (Table FE5/Figure FE5). The *PMA* statistics for residual fuel oil are historically lower than the *PSA* statistics. A primary reason for the difference between *PMA* and *PSA* data may be because both PD Form EIA-782C, is a sales survey, with volumes based on transfer of ownership (equity basis), while *PSA* Form EIA-810 is a supply survey, with volumes reported on the basis of the amount of petroleum in custody, regardless of ownership (custody basis). Residual fuel oil

imported by electric utilities for their own use may not be reported on Form EIA-782C because a transfer of ownership (sale) did not occur in the United States. The difference between *PSA* and *PMA* statistics had steadily increased from 4.5 percent in 1992 to 26.4 percent in 1995. Since then, the difference has narrowed to 15.4 percent in 1998. For the 10-year period 1989 through 1998, the average absolute difference between *PSA* and *PMA* data was 12.0 percent. The Fuel Oil And Kerosene Sales Report provides data on end-use sales of residual fuel oil. For the 10-year period 1989 through 1998, the difference between *PSA* and FOKS data averaged 4.3 percent. The API volumes of residual fuel oil supplied were close to *PSA* volumes over the same 10-year period, while the average absolute difference between *PSA* and API data is 3.1 percent.

Conclusion

For comparison purposes, it must be recognized that differences probably will always exist given the various data collection processes employed by the respective organizations. The makeup of the sampling frames, the inclusion or exclusion of data from related survey forms, and how survey data are compiled or aggregated, are just three of the many reasons why the data from one survey may differ from those of another. Although *PSA* statistics were in relative proximity to other sources of petroleum data, the primary focus is to keep the data differences in perspective and within as narrow a range as possible. Future efforts will involve analysis of the differences as they relate to relevant issues, problems, or situations and how the data collection process may impact or be impacted by them.

Information on Data Source Differences and Adjustments

American Petroleum Institute: In this article, API's annual statistics are totals of initial monthly values. The initial monthly estimate published by API is derived from API sources. However, later API publications reflect revisions which make use of EIA data. *PSA* statistics on crude oil include imports for the Strategic Petroleum Reserve (SPR) while API statistics do not. Therefore, the following figures for SPR were added to the API figures: none in 1998, none in 1997, none in 1996, none in 1995, 4.5 million barrels in 1994, 5.4 million barrels in 1993, 3.6 million barrels in 1992, none in 1991, 9.8 million barrels in 1990, and 20.3 million barrels in 1989. The API publishes monthly estimates of motor gasoline, distillate fuel oil and residual fuel oil delivered from primary storage in thousand barrels per day. However, the API discontinued publishing kerosene data in 1982. *PSA* values for kerosene supplied (28 million barrels in 1998, 24 million barrels in 1997, 23 million barrels in 1996, 20 million barrels in 1995, 18 million barrels in 1994, 18 million barrels in 1993, 15 million barrels in 1992, 17 million barrels in 1991, 16 million barrels in 1990 and 31 million barrels in 1989) were added to API distillate totals.

Oil and Gas Journal: The *Oil and Gas Journal* publishes weekly averages of crude oil production in thousand barrels per day. Those averages are used to produce monthly totals as follows: the average for each week is used as a daily production estimate for each of the days the week covers. For each month, the production estimates for days covered by the month are summed. The totals are converted from thousand to million barrels for this article.

Federal Highway Administration: Data on both highway and non-highway use of gasoline, excluding aviation gasoline, are from the *Highway Statistics* publication and are based on volumes of total gasoline usage.

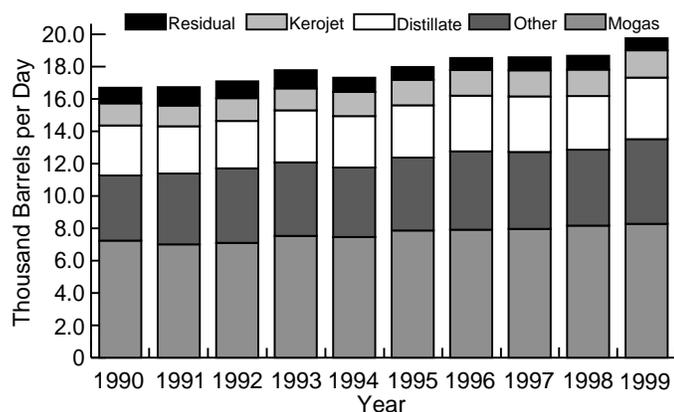
U.S. Bureau of the Census: Since 1986, Census data have been available through the FT-246, *Annual U.S. Imports for Consumption and General Imports*. Imports into Puerto Rico and the Virgin Islands are included in the Census data but not in the *PSA* data. The Census excludes data on imports into the United States from Puerto Rico and the Virgin Islands.

Petroleum Division: EIA's Petroleum Division data are from the Form EIA-782C, "Monthly Report of Prime Supplier Sales Volumes of Petroleum Products for Local Consumption." The prime supplier produces imports, or transports product across State boundaries and local marketing areas and sells the product to local distributors, local retailers, or end users. The report on *Fuel Oil and Kerosene Sales* provides information and State-level data on end-use sales of distillate fuel oil, kerosene, and residual fuel oil.

Highlights

November temperatures were considerably warmer than the seasonal norm. On average, temperatures were 11.7 percent warmer than this time last year and 18.8 percent warmer than normal for this time of year.¹ While weather-related demand for petroleum products was soft this month, moderate to strong economic growth and precautionary buying ahead of the new calendar year more than compensated. November marked yet another month of expansion for the growing U.S. economy.² Total demand for refined petroleum products, measured as product supplied, set a **November³ record high** at an average of 19.8 million barrels per day (Table & Figure H1).

Figure H1. Total Demand, 1990-Current, Comparison in November for Petroleum Products



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

November 1999 highlights include:

- Finished motor gasoline **demand** set a **record high for the month** at an average of 8.3 million barrels per day. **Stocks** of finished motor gasoline ended the month at 154.3 million barrels, 13.2 million barrels less than this time last year.
- Distillate fuel oil **demand** also set a **record high for the month** at 3.8 million barrels per day. Total distillate fuel oil **stocks** ended the month at a 20.8 million barrel deficit compared to last November.
- Residual fuel oil **demand** dropped to 750 thousand barrels per day, the lowest daily average for November since 1996. **Production** was the **lowest for November in more than three decades** at 605 thousand barrels per day.
- Kerosene-type jet fuel **demand** set the **November record** at a high of 1.7 million barrels per day. **Production** of kerosene-type jet fuel was down 76 thousand barrels per day from the November record high. Kerosene-type jet fuel **stocks** totaled 41.1 million barrels by month-end.

¹ "Heating Degree Day Data Monthly Summary, Monthly Data for November 1999", *National Oceanic and Atmospheric Administration*, accessible via the Internet at <http://www.cpc.ncep.noaa.gov/>.

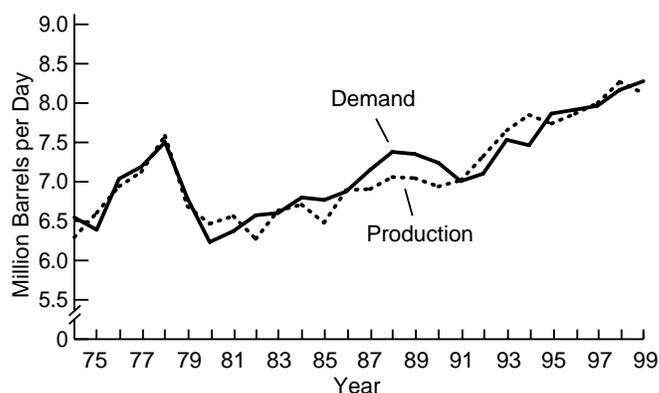
² "The Beige Book Summary", *Federal Reserve Board*, December 8, 1999, accessible via the Internet at <http://www.bog.frb.fed.us/fomc/beigebook/1999/>.

³ November 1999 data are monthly-from-weekly estimates based on the Energy Information Administration's Weekly Petroleum Supply Reporting System.

⁴ "Table 16. U.S. Retail Motor Gasoline and On-Highway Diesel Fuel Prices, 1998 to Present", *Weekly Petroleum Status Report*, November 26, 1999, p. 27.

- Thanks to mild weather, propane **inventories** experienced a smaller than normal November draw ending the month at 56.1 million barrels.
- Crude oil domestic **production** averaged 6.1 million barrels per day, **the lowest average for the month in 49 years**. **Imports** of crude oil averaged 8.2 million barrels per day, down 8.3 percent compared to last November's record for the month. Excluding the crude oil **stocks** held in the Strategic Petroleum Reserve (SPR), by month's end, stocks were **below 300 million barrels**.
- Crude oil inputs averaged 14.8 million barrels per day, the highest average for the month since the 1978 record.

Figure H2. Finished Motor Gasoline, Year-to-Year November Comparisons, 1974-1999



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Motor Gasoline

Finished motor gasoline **demand** set a **record high for the month** at an average of 8.3 million barrels per day (Figure H2). Along with crude oils price recovery, gasoline prices too have been increasing. Conventional motor gasoline prices were up over a quarter compared to this time last year with November prices averaging \$1.274 per gallon, including taxes (Figure H3).⁴ **Production** of finished motor gasoline reached the second highest daily average for the month at 8.1 million barrels per day. While **imports** of finished motor gasoline fell to their lowest average for a month this year, they were in the upper range for November at 253 thousand barrels per day. **Stocks** of finished motor gasoline ended the month at 154.3 million barrels, the lowest level since August 1997 and the lowest level for the month since 1996. Compared to last November's motor gasoline stock levels, reformulated stocks were down 8.1 percent at 39.3 million barrels, oxygenated stocks were down 12.4 percent at 0.9 million barrels, and other finished stocks were down 7.8 percent at 114.1 million barrels.

Table H1. Petroleum Supply Summary
(Million Barrels per Day, Except Where Noted)

Category	1999			1998	January - November	
	Estimated November	October	Difference ^a	November	1999	1998
Products Supplied	19.8	19.9	-0.1	18.7	19.4	18.9
Finished Motor Gasoline.....	8.3	8.5	-0.3	8.2	8.3	8.2
Distillate Fuel Oil.....	3.8	3.8	(s)	3.3	3.5	3.5
Residual Fuel Oil	0.8	0.7	(s)	0.9	0.8	0.9
Jet Fuel.....	1.7	1.7	(s)	1.6	1.7	1.6
Other Petroleum Products ^b	5.2	5.2	0.1	4.7	5.0	4.7
Crude Oil Inputs	14.8	14.6	0.2	14.8	14.9	14.9
Operating Utilization Rate (%)	92.0	92.2	-0.2	97.5	93.9	97.0
Imports	9.9	10.4	-0.5	10.9	10.6	10.7
Crude Oil	8.2	8.4	-0.2	8.9	8.6	8.7
Strategic Petroleum Reserve	0.0	(s)	(s)	0.0	(s)	0.0
Other.....	8.2	8.4	-0.2	8.9	8.6	8.7
Products	1.7	2.0	-0.3	1.9	2.0	2.0
Finished Motor Gasoline.....	0.3	0.4	-0.1	0.2	0.4	0.3
Distillate Fuel Oil.....	0.3	0.2	(s)	0.2	0.2	0.2
Residual Fuel Oil	0.2	0.2	(s)	0.3	0.2	0.3
Jet Fuel.....	0.1	0.1	(s)	0.1	0.1	0.1
Other Petroleum Products ^c	0.9	1.1	-0.2	1.1	1.0	1.1
Exports	0.9	0.9	(s)	0.8	0.9	0.9
Crude Oil	0.1	0.1	0.1	0.1	0.1	0.1
Products	0.8	0.9	-0.1	0.7	0.8	0.8
Total Net Imports	9.0	9.5	-0.5	10.1	9.7	9.8
Stock Change^d	-1.2	-0.9	-0.3	0.7	-0.3	0.3
Crude Oil	-0.4	-0.1	-0.3	0.3	-0.1	0.1
Products	-0.9	-0.9	(s)	0.4	-0.2	0.2
Total Stocks	1,559	1,579	-20	1,672	—	—
(million barrels)						
Crude Oil	868	876	-7	904	—	—
Strategic Petroleum Reserve ^e	569	572	-3	569	—	—
Other.....	299	303	-4	335	—	—
Products	691	704	-13	768	—	—
Finished Motor Gasoline.....	154	159	-5	168	—	—
Distillate Fuel Oil.....	134	138	-4	155	—	—
Residual Fuel Oil	39	40	-2	43	—	—
Jet Fuel.....	41	44	-3	45	—	—
Other Petroleum Products ^c	323	323	(s)	358	—	—

^a Difference is equal to volume for current month minus volume for previous month.

^b Includes crude oil product supplied, natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and jet fuel.

^c Includes natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except finished motor gasoline, jet fuel, distillate fuel oil, and residual fuel oil.

^d A negative number indicates a decrease in stocks and a positive number indicates an increase.

^e Crude oil stocks in the Strategic Petroleum Reserve include non-U.S. stocks held under foreign or commercial storage agreements.

(s) = Less than 0.05 million barrels per day, or less than 0.05 percent, or less than 0.5 million barrels.

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

Source: Energy Information Administration (EIA), 1998, *Petroleum Supply Annual*, Volume 2; appropriate issues of the *Petroleum Supply Monthly* and the *Weekly Petroleum Status Report*.

Data for the current month are preliminary estimates, based on weekly submissions. For an explanation of estimation methodology and accuracy, see Appendix A of *Weekly Petroleum Status Report* and the article, "Accuracy of Petroleum Supply Data", published in the October 1998, *Petroleum Supply Monthly*.

Table H2. U.S. Refinery Inputs, Capacities¹ and Utilization Rates: 1998-1999
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1998												
Gross Refinery Inputs	14,661	14,262	14,901	15,301	15,464	15,671	15,705	15,806	15,040	14,222	15,095	15,169
Operating Refinery Capacity ²	15,538	15,558	15,550	15,547	15,573	15,686	15,691	15,685	15,699	15,343	15,478	15,797
Idle Capacity ³	173	158	184	144	135	135	135	143	129	537	449	154
Idle Three Months or Less	47	20	46	0	0	0	0	14	0	420	369	37
Idle More than Three Months	127	138	138	144	135	135	135	129	129	117	80	117
Operable Refinery Capacity	15,711	15,716	15,735	15,692	15,708	15,821	15,826	15,828	15,828	15,880	15,927	15,951
Utilization Rate (percent)												
Operating Capacity	94.4	91.7	95.8	98.4	99.3	99.9	100.1	100.8	95.8	92.7	97.5	96.0
Operable Capacity	93.3	90.7	94.7	97.5	98.4	99.1	99.2	99.9	95.0	89.6	94.8	95.1
1999												
Gross Refinery Inputs	14,762	14,719	14,802	15,333	15,253	15,195	15,447	15,546	15,353	14,861		
Operating Refinery Capacity ²	15,953	15,955	16,139	16,140	15,984	16,137	16,134	16,134	16,164	16,118		
Idle Capacity ³	200	227	131	132	288	139	153	153	153	199		
Idle Three Months or Less	71	98	2	0	158	7	21	48	14	46		
Idle More than Three Months	129	129	129	132	130	132	132	105	139	153		
Operable Refinery Capacity	16,153	16,181	16,270	16,271	16,271	16,276	16,287	16,287	16,317	16,317		
Utilization Rate (percent)												
Operating Capacity	92.5	92.3	91.7	95.0	95.4	94.2	95.7	96.4	95.0	92.2		
Operable Capacity	91.4	91.0	91.0	94.2	93.7	93.4	94.8	95.4	94.1	91.1		

¹Capacities are on a calendar day basis.

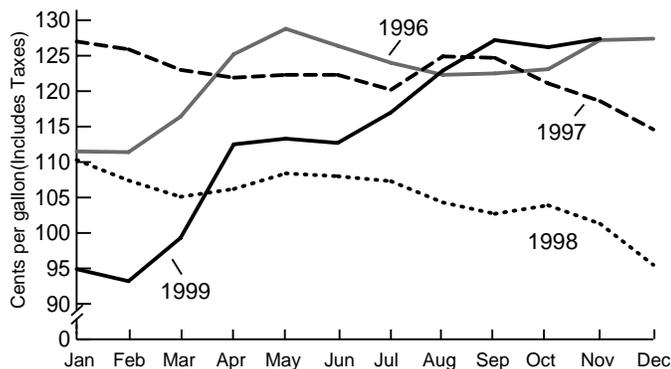
²Operating capacity equals the operable capacity less the total idle capacity.

³Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.

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

Sources: Energy Information Administration (EIA), 1998, *Petroleum Supply Annual*, Volume 2, Table 16; EIA, *Petroleum Supply Monthly*, 1999 data issue, Table 28.

Figure H3. Retail Prices for Conventional Motor Gasoline, 1996-current



Source: Energy Information Administration, *Weekly Petroleum Status Report*, DOE/EIA-0208 (various issues).

Distillate Fuel Oil

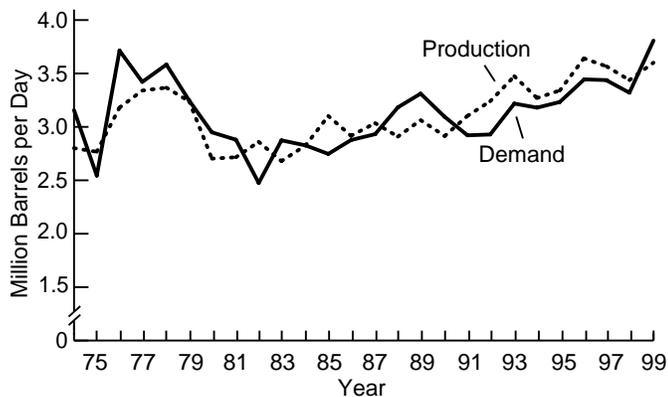
Demand for distillate fuel oil averaged 3.8 million barrels per day, setting a **record high for the month** (Figure H4). While mild weather failed to provide much support for heating oils, fears related to possible computer glitches have been pointed to as the reason for the increased demand.⁵ In addition to precautionary moves by end-users and distributors, rail traffic continues at healthy levels providing additional need in the transportation sector.⁶ **Production** of distillate fuel oils reached the highest daily average for the month in three years at 3.6 million barrels per day. Distillate fuel oil **imports** averaged 252 thousand barrels per day which was in the upper range for the month. Precautionary stock piling by jobbers and dealers, to minimize supply disruptions related to year 2000 problems has led to secondary level storage fills.⁷ Primary stocks were at their lowest level for the month since 1996. Total distillate fuel oil **stocks** ended the month at 133.8 million barrels. At 68.5 million barrels, stocks of low-sulfur distillates were down 5.0 million barrels compared to this time last year. Stocks of high-sulfur, or heating oils, ended the month at 65.3 million barrels, down 15.8 million barrels compared to last November.

⁵ "Draw on Stocks Rolls On, But at Uneven Pace", *The Oil Daily*, December 9, 1999, p. 1 & 2.

⁶ "Rail Freight Traffic Up in November", *Association of American Railroads*, December 2, 1999, accessible via the Internet at <http://www.aar.org/>.

⁷ "US Refiners Battle Against Weakest Margins of the Decade", *The Oil Daily*, December 15, 1999, p. 2.

Figure H4. Distillate, Year-to-Year November Comparisons, 1974-1999

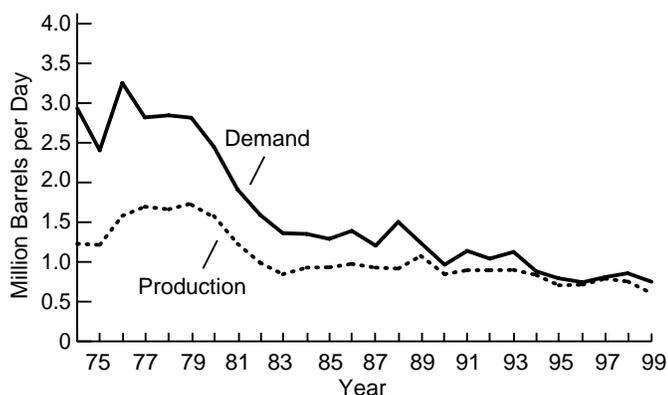


Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Residual Fuel Oil

Demand for residual fuel oil was sluggish due to the warmer weather and more economical alternatives as power generating utilities favored natural gas while only the shipping sector (which uses residual fuel oil for bunkering) showed much support.⁸ Demand for residual fuel oil dropped to the lowest average for the month since 1996 at 750 thousand barrels per day (Figure H5). Production of residual fuel oil dropped to the lowest level for November in more than three decades averaging 605 thousand barrels per day. Residual fuel oil imports averaged 201 thousand barrels per day, low compared to past November averages. Stocks ended the month within the normal seasonal range at 38.7 million barrels.

Figure H5. Residual, Year-to-Year November Comparisons, 1974-1999

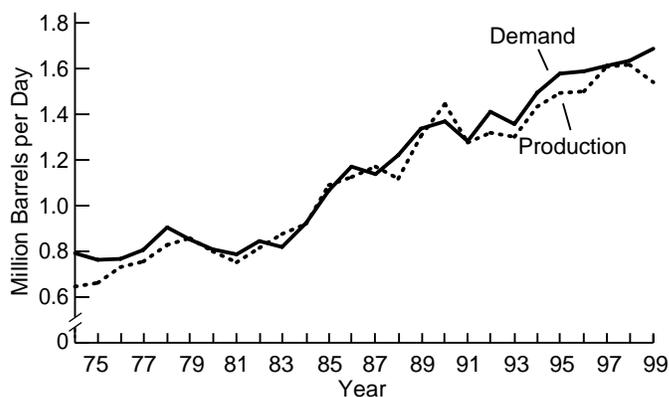


Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Kerosene-Type Jet Fuel

Demand for kerosene-type jet fuel continues to soar and data for the airline industry implies a greater need for the fuel as more seats were available to travelers.⁹ Along with the increasing needs of the air industry, demand for kerosene-type jet fuel also received support from refineries who use the fuel as a winterizing agent for low-sulfur diesel.¹⁰ Demand for kerosene-type jet fuel soared to 1.7 million barrels per day in November, a record high for this time of year (Figure H6). At an average of 1.5 million barrels per day, production of kerosene-type jet fuel was only 77 thousand barrels per day from the record for November set last year. Imports of total jet fuel, kerosene- and naphtha-type, were within the normal seasonal range averaging 108 thousand barrels per day. Stocks of kerosene-type jet fuel were 4.4 million barrels below this time last year at 41.1 million barrels.

Figure H6. Kerojet, Year-to-Year November Comparisons, 1974-1999



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Propane

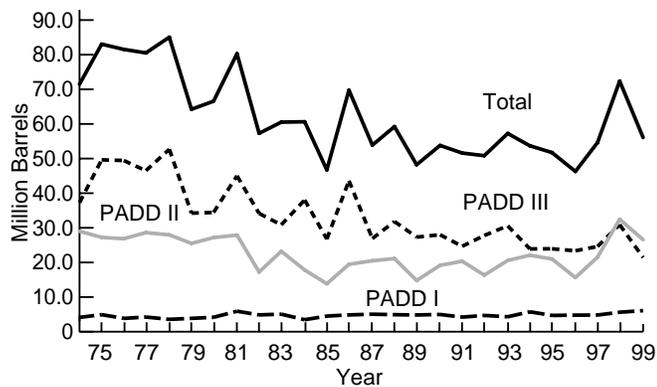
Mild temperatures during November, particularly in some of the major propane consuming regions of the Nation, left U.S. month-end inventories at the second highest level for the month since 1993. This occurred even though U.S. inventories ended the month 16.3 million barrels lower than last November's unusually high total. Propane inventories ended the month within the normal seasonal range at 56.1 million barrels, indicating a smaller than normal seasonal draw (Figure H7). Compared to last year, East Coast propane stocks increased 441 thousand barrels for a total of 6.1 million barrels. Inventories were static along the Gulf Coast and increased 394 thousand barrels in the Midwest stocks. Inventories in the Gulf Coast totaled 21.4 million barrels while the Midwest totaled 26.6 million barrels. East Coast stocks were the only region to end the month above the normal seasonal range. Propane stocks in the Midwest were towards the upper limit of the normal range and Gulf Coast inventories ended the month below normal.

⁸ "New York fuel oil recovering slowly from record Nov lows", *Platt's Oilgram Price Report*, November 29, 1999, p. 1 & 4.

⁹ "Preliminary Scheduled Passenger Traffic Statistics", *Air Transport Association*, December 13, 1999, accessible via the Internet at <http://www.air-transport.org/>.

¹⁰ "Atlantic Coast: Jet cruises higher on tight supply, winter's pull", *Platt's Oilgram Price Report*, November 24, 1999, p. 3.

Figure H7. Propane Stocks, Year-to-Year November Comparisons, 1974-1999



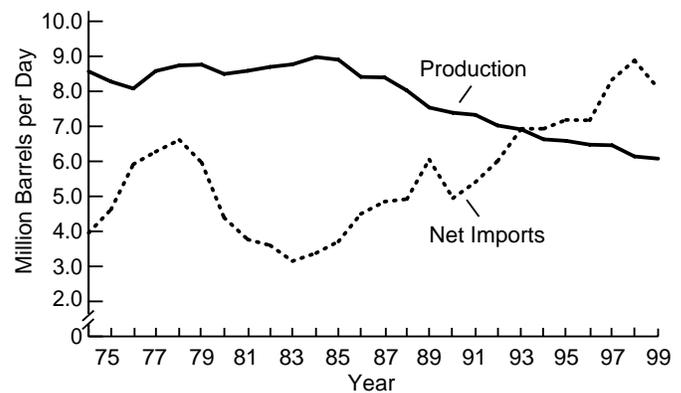
Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Crude Oil

Domestic **production** of crude oil dropped to the **lowest daily average for November in 49 years** at 6.1 million barrels per day (Figure H8). Alaskan field production of crude oil averaged only 1.0 million barrels per day, **down 11.6 percent compared to this time last year**. Alaskan crude production was affected by the warm temperatures, multiple power outages at Prudhoe Bay, and an eight-hour shutdown of the Trans-Alaskan Pipeline System for planned maintenance.¹¹ Imports of crude oil were down 8.3 percent compared to last November's record high daily average. Crude oil **imports** averaged 8.2 million barrels per day. Net imports of crude oil were also down for the month, averaging 8.1 million barrels per day. Imports of crude slowed in November thanks to higher crude oil prices and end-of-year accounting practices which dictate lower crude oil inventories.¹² Along with strong compliance in production cuts among OPEC members, further tightening in the crude oil market came late in the month as the sixth phase of the United Nations "oil-for-food" deal came to a close and the Iraqi government rejected a two-week extension to the program.¹³ The crude oil price recovery left OPEC's "basket" price for crude oil at an average of \$23.74 a barrel for November.¹⁴

Stocks of crude oil, excluding the SPR, ended the month at their lowest level since February 1997 and the lowest for November since 1976. Excluding the SPR inventories, crude oil **stocks** ended the month at 299.0 million barrels. Compared to this time last year, crude oil stocks are down 36.3 million barrels. Total stocks of crude oil, including stocks in the SPR, ended the month at the lowest month-end total since December 1997. Total crude oil stocks ended the month at 868.3 million barrels; this includes non-U.S. stocks held under foreign or commercial storage agreements.

Figure H8. Crude Oil, Year-to-Year November Comparisons for Production and Net Imports, 1974-1999

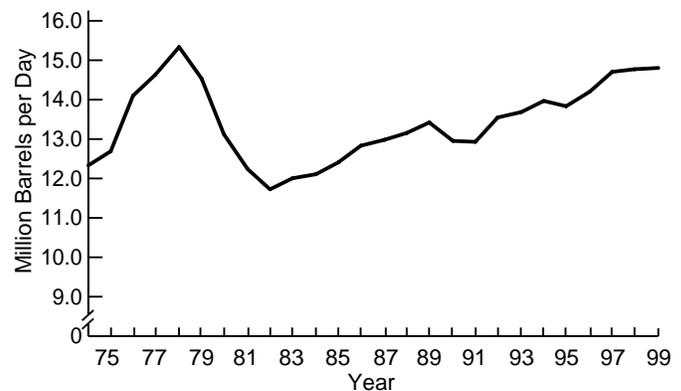


Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Refinery Operations

Crude oil **inputs** averaged 14.8 million barrels per day, the highest average for the month since the 1978 record high (Figure H9). The estimated refinery **operable utilization rate** (gross input divided by operable capacity), averaged 91.2 percent of capacity compared to 94.8 percent last November. During November, the Federal Trade Commission (FTC) approved a consent order for the mega-merger between Exxon Corp. and Mobil Oil Corp. While the formation of the Exxon Mobil Corp. was approved, the FTC expressed concern over the proposed merger between BP Amoco PLC and the Atlantic Richfield Co. (ARCO).¹⁵

Figure H9. Year-to-Year November Comparisons for Crude Oil Inputs, 1974-1999



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

¹¹ "FY 2000 ANS Production", *Alaska Department of Revenue*, November 1999, accessible via the Internet at <http://www.revenue.state.ak.us/oga/>.

¹² "Marketview-Trying to Do Without", *Petroleum Intelligence Weekly*, December 6, 1999, p. 6.

¹³ "Iraq, protesting UN moves, halts exports", *Platt's Oilgram News*, November 23, 1999, p. 1 & 5.

¹⁴ "OPEC weekly basket falls 32 cts/bbl", *Platt's Oilgram Price Report*, December 7, 1999, p. 9.

¹⁵ "Mega-Mergers Hit The Limit, Say US Regulators", *Petroleum Intelligence Weekly*, December 6, 1999, p. 1 & 4.

Table S1. Crude Oil and Petroleum Products Overview, 1984 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Field Production			Stock Change ^a		Petroleum Products Supplied	Ending Stocks ^b (Million Barrels)
	Total Domestic ^c	Crude Oil	Natural Gas Plant Liquids	Crude Oil ^d	Petroleum Products		Crude Oil ^d and Petroleum Products
1984 Average	10,554	8,879	1,630	199	81	15,726	1,556
1985 Average	10,636	8,971	1,609	50	-153	15,726	1,519
1986 Average	10,289	8,680	1,551	78	124	16,281	1,593
1987 Average	10,008	8,349	1,595	128	-87	16,665	1,607
1988 Average	9,818	8,140	1,625	1	-29	17,283	1,597
1989 Average	9,219	7,613	1,546	86	-129	17,325	1,581
1990 Average	8,994	7,355	1,559	-35	142	16,988	1,621
1991 Average	9,168	7,417	1,659	-42	32	16,714	1,617
1992 Average	8,996	7,171	1,697	-1	-68	17,033	^g 1,592
1993 Average	8,836	6,847	1,736	81	^g 70	17,237	^g 1,647
1994 Average	8,645	6,662	1,727	18	^g -2	17,718	^g 1,653
1995 Average	8,626	6,560	1,762	-93	-153	17,725	^g 1,563
1996 Average	8,607	6,465	1,830	-124	-28	18,309	^g 1,507
1997 January	8,470	6,402	1,782	462	-679	18,554	1,501
February	8,708	6,514	1,867	-122	-557	18,398	1,482
March	8,646	6,452	1,876	520	444	17,863	1,512
April	8,604	6,441	1,824	197	4	18,559	1,518
May	8,633	6,474	1,822	230	1,172	18,293	1,561
June	8,610	6,442	1,827	-199	658	18,617	1,575
July	8,608	6,409	1,821	-343	-167	19,107	1,559
August	8,535	6,347	1,831	-283	643	18,565	1,570
September	8,679	6,486	1,845	95	642	18,562	1,592
October	8,624	6,467	1,813	393	-214	19,071	1,598
November	8,565	6,459	1,728	252	-195	18,578	1,600
December	8,662	6,531	1,773	-608	-675	19,250	1,560
Average	8,611	6,452	1,817	51	93	18,620	—
1998 January	8,781	6,541	1,805	389	-66	18,362	1,570
February	8,731	6,476	1,857	37	-79	18,316	1,569
March	8,590	6,408	1,853	538	54	18,685	1,587
April	8,685	6,483	1,869	556	349	19,044	1,614
May	8,529	6,347	1,835	-9	1,232	18,375	1,652
June	8,460	6,267	1,748	-620	577	19,182	1,651
July	8,155	6,194	1,586	187	162	19,466	1,661
August	8,301	6,203	1,722	-293	530	19,347	1,669
September	7,878	5,789	1,716	-641	95	18,895	1,652
October	8,257	6,143	1,744	677	-776	19,188	1,649
November	8,294	6,140	1,768	321	425	18,673	1,672
December	8,066	6,043	1,620	-285	-515	19,419	1,647
Average	8,392	6,252	1,759	74	165	18,917	—
1999 January	^E 7,974	^E 5,954	1,656	67	-321	18,850	1,639
February	^E 8,109	^E 5,984	1,722	31	-521	19,240	1,625
March	^E 8,204	^E 6,048	1,779	342	-903	19,489	1,608
April	^E 8,087	^E 5,977	1,786	-192	434	18,861	1,615
May	^E 8,185	^E 5,985	1,768	406	1,064	18,142	1,661
June	^E 8,097	^E 5,880	1,827	-402	-425	19,738	1,636
July	^E 8,055	^E 5,873	1,880	104	1	19,503	1,639
August	^E 8,202	^E 5,912	1,838	-545	-131	19,883	1,618
September	^E 8,128	^E 5,820	1,911	-370	29	19,537	1,608
October	^{RE} 8,222	^{RE} 5,878	^R 1,938	^R -74	^R -856	^R 19,860	^R 1,579
November*	^E 8,370	^{PE} 6,077	^E 1,850	^E -364	^E -878	^E 19,758	^E 1,559
11-Mo. Average	^E 8,148	^{PE} 5,944	^E 1,814	^E -89	^E -225	^E 19,351	—
1998 11-Mo. Average	8,422	6,271	1,772	107	229	18,871	—
1997 11-Mo. Average	8,606	6,444	1,821	112	164	18,562	—

^a A negative number indicates a decrease in stocks and a positive number indicates an increase.

^b Stocks are totals as of end of period.

^c Includes crude oil, natural gas plant liquids, and other liquids. Beginning in 1993, fuel ethanol blended into finished motor gasoline and oxygenate production from merchant MTBE plants are also included.

^d Includes stocks located in the Strategic Petroleum Reserve.

^e Includes crude oil for storage in the Strategic Petroleum Reserve.

^f Net Imports equal Imports minus Exports.

^g In January 1981 and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. Bulk terminal and pipeline stocks of oxygenates were added beginning in January 1993. See Summary Statistics Explanatory Note 4.

Footnotes continued on following page.

Table S1. Crude Oil and Petroleum Products Overview, 1984 - Present (Continued)
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Imports			Exports			Net Imports ^f
	Total	Crude Oil ^e	Petroleum Products	Total	Crude Oil	Petroleum Products	
1984 Average	5,437	3,426	2,011	722	181	541	4,715
1985 Average	5,437	3,201	1,866	781	204	577	4,286
1986 Average	6,224	4,178	2,045	785	154	631	5,439
1987 Average	6,678	4,674	2,004	764	151	613	5,914
1988 Average	7,402	5,107	2,295	815	155	661	6,587
1989 Average	8,061	5,843	2,217	859	142	717	7,202
1990 Average	8,018	5,894	2,123	857	109	748	7,161
1991 Average	7,627	5,782	1,844	1,001	116	885	6,626
1992 Average	7,888	6,083	1,805	950	89	861	6,938
1993 Average	8,620	6,787	1,833	1,003	98	904	7,618
1994 Average	8,996	7,063	1,933	942	99	843	8,054
1995 Average	8,835	7,230	1,605	949	95	855	7,886
1996 Average	9,478	7,508	1,971	981	110	871	8,498
1997 January	9,763	7,492	2,271	1,038	141	897	8,725
February	9,561	7,434	2,127	1,017	229	787	8,544
March	9,833	7,754	2,079	933	136	796	8,900
April	10,114	7,987	2,127	937	92	845	9,177
May	10,818	8,653	2,165	876	26	851	9,941
June	10,736	8,759	1,978	955	57	898	9,782
July	10,008	8,178	1,830	1,012	70	942	8,996
August	10,465	8,621	1,844	1,074	110	964	9,390
September	10,537	8,840	1,697	997	122	875	9,540
October	10,792	8,927	1,865	1,066	152	914	9,726
November	9,948	8,366	1,582	934	32	901	9,014
December	9,328	7,653	1,675	1,197	131	1,066	8,130
Average	10,162	8,225	1,936	1,003	108	896	9,158
1998 January	10,127	8,339	1,788	1,133	231	902	8,994
February	9,991	8,045	1,946	1,003	197	806	8,988
March	10,034	8,124	1,911	948	99	848	9,087
April	11,105	8,985	2,120	1,048	163	885	10,057
May	11,104	8,987	2,117	1,053	144	909	10,051
June	10,926	8,795	2,132	987	63	924	9,939
July	11,649	9,507	2,142	998	104	894	10,651
August	11,032	9,177	1,855	780	51	729	10,252
September	10,499	8,500	1,998	863	34	828	9,636
October	10,861	8,667	2,194	851	87	763	10,011
November	10,860	8,940	1,920	782	60	721	10,078
December	10,258	8,352	1,906	893	90	803	9,365
Average	10,708	8,706	2,002	945	110	835	9,764
1999 January	10,181	8,308	1,873	896	107	788	9,285
February	10,336	8,387	1,949	756	119	636	9,580
March	10,589	8,757	1,832	764	95	669	9,825
April	11,227	9,080	2,146	1,196	332	864	10,031
May	10,865	8,806	2,059	915	88	826	9,950
June	10,624	8,601	2,024	907	123	784	9,717
July	11,250	9,222	2,028	918	120	798	10,332
August	10,734	8,684	2,050	902	132	769	9,832
September	10,566	8,470	2,097	889	27	862	9,677
October	^R 10,428	^R 8,439	^R 1,989	^R 944	^R 56	^R 888	^R 9,484
November*	^E 9,919	^E 8,198	^E 1,721	^E 935	^E 110	^E 825	^E 8,984
11-Mo. Average	^E 10,614	^E 8,635	^E 1,979	^E 912	^E 119	^E 793	^E 9,702
1998 11-Mo. Average	10,750	8,739	2,011	949	112	838	9,801
1997 11-Mo. Average	10,239	8,279	1,960	985	106	880	9,254

Footnotes continued.

R = Revised data. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

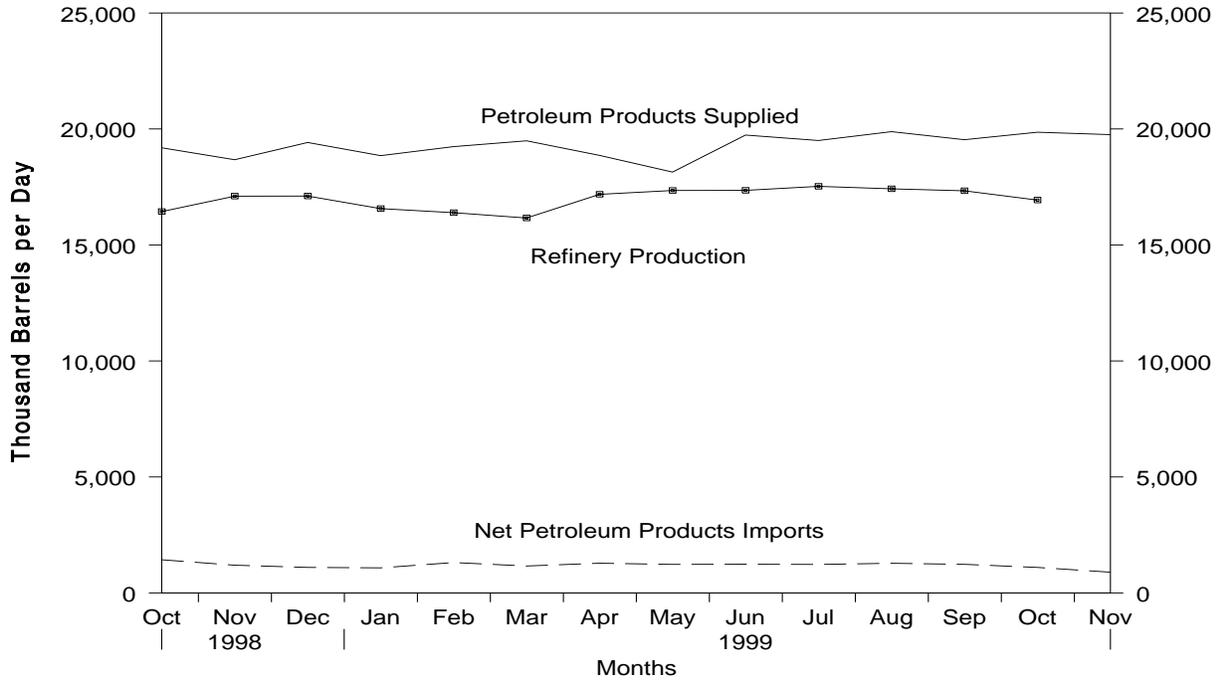
— = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Crude oil includes lease condensate. • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

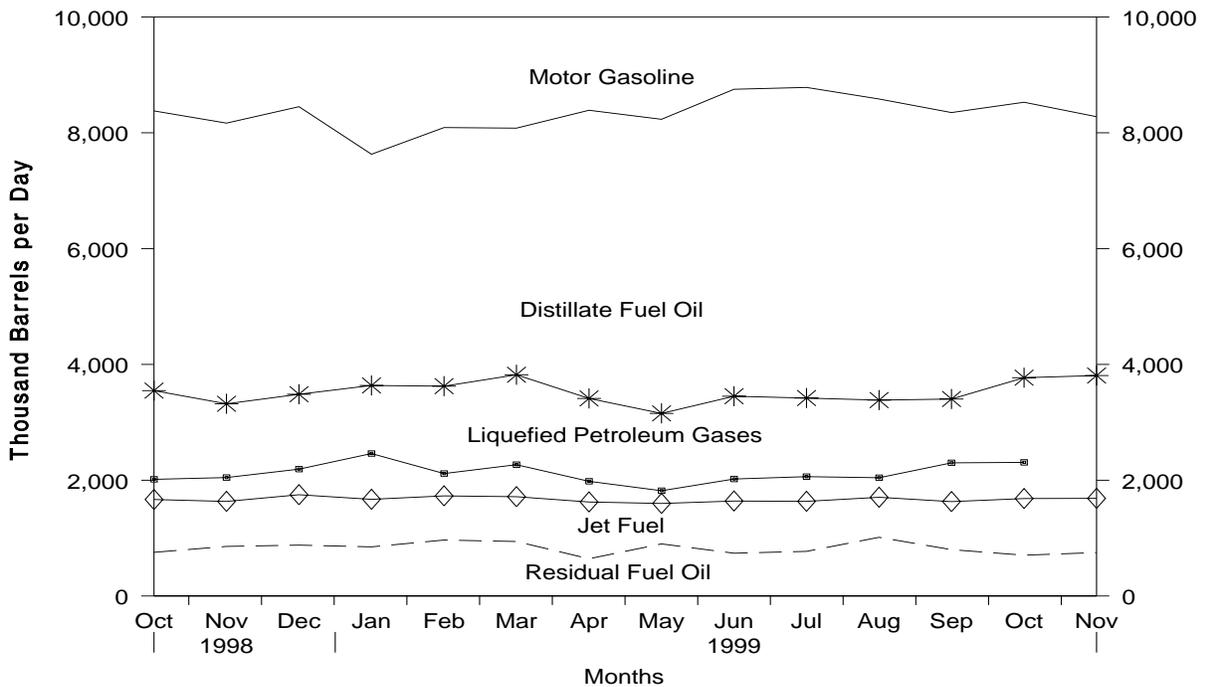
Source: See Summary Statistics Table and Figure Sources.

Figure S1. Petroleum Overview, October 1998 - Present



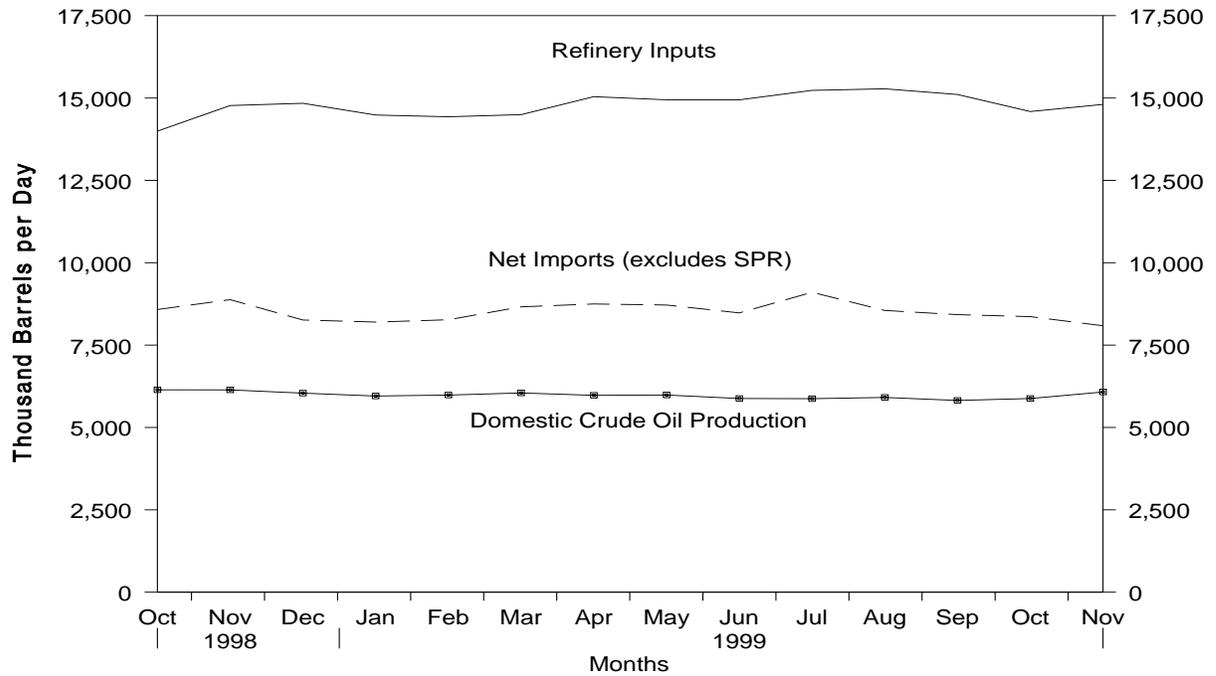
Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S1. See Summary Statistics Table and Figure Sources.

Figure S2. Petroleum Products Supplied, October 1998 - Present



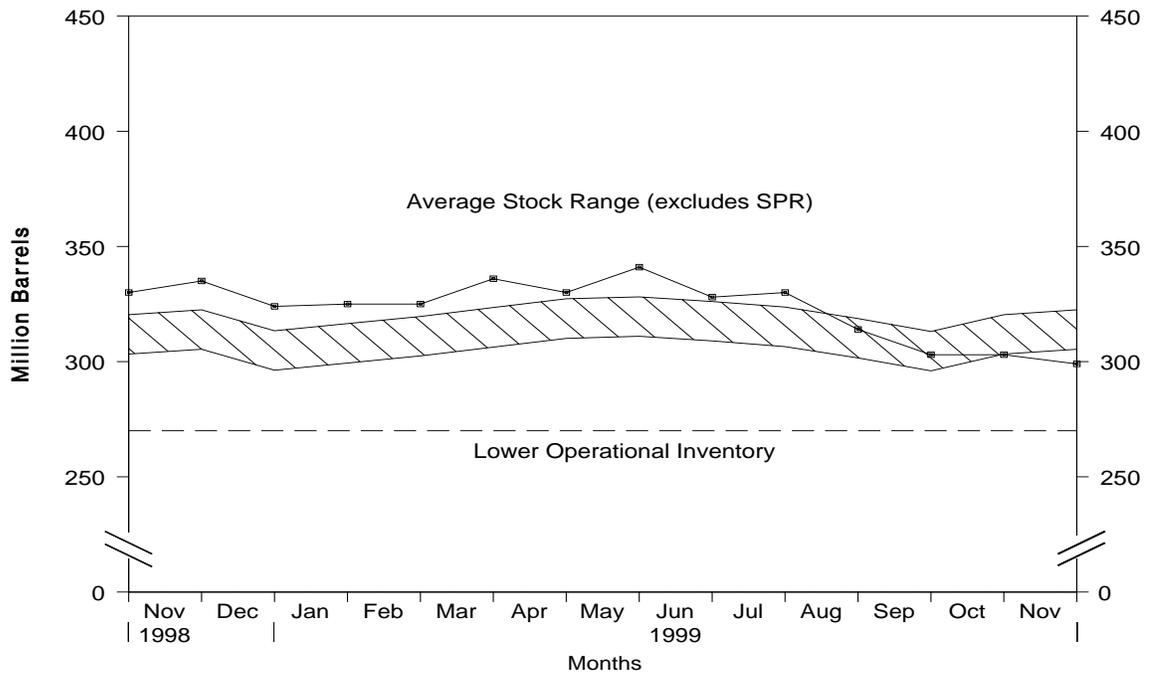
Source: Energy Information Administration, *Petroleum Supply Monthly*, Tables S4-S7, and S9. See Summary Statistics Table and Figure Sources.

Figure S3. Crude Oil Supply and Disposition, October 1998 - Present



Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S2. See Summary Statistics Table and Figure Sources.

Figure S4. Crude Oil Ending Stocks,¹ October 1998 - Present



¹Excludes stocks held in the Strategic Petroleum Reserve (SPR).

Note: The Lower Operational Inventory for crude oil stocks is 270.0 million barrels.

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S2. See Summary Statistics Table and Figure Sources.

Table S2. Crude Oil Supply and Disposition, 1984 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply						Disposition	
	Field Production		Imports			Unaccounted for Crude Oil ^a	Crude Losses	
	Total Domestic	Alaskan	Total	SPR	Other			
1984 Average	8,879	1,722	3,426	197	3,229	185	2	
1985 Average	8,971	1,825	3,201	118	3,083	145	1	
1986 Average	8,680	1,867	4,178	48	4,130	139	(s)	
1987 Average	8,349	1,962	4,674	73	4,601	145	(s)	
1988 Average	8,140	2,017	5,107	51	5,055	196	(s)	
1989 Average	7,613	1,874	5,843	56	5,787	200	(s)	
1990 Average	7,355	1,773	5,894	27	5,867	258	(s)	
1991 Average	7,417	1,798	5,782	0	5,782	195	(s)	
1992 Average	7,171	1,714	6,083	10	6,073	258	(s)	
1993 Average	6,847	1,582	6,787	15	6,772	168	(s)	
1994 Average	6,662	1,559	7,063	12	7,051	266	(s)	
1995 Average	6,560	1,484	7,230	0	7,230	193	(s)	
1996 Average	6,465	1,393	7,508	0	7,508	215	(s)	
1997 January	6,402	1,380	7,492	0	7,492	378	0	
February	6,514	1,384	7,434	0	7,434	-350	0	
March	6,452	1,331	7,754	0	7,754	501	0	
April	6,441	1,330	7,987	0	7,987	167	0	
May	6,474	1,303	8,653	0	8,653	257	0	
June	6,442	1,260	8,759	0	8,759	-170	0	
July	6,409	1,238	8,178	0	8,178	136	0	
August	6,347	1,200	8,621	0	8,621	130	0	
September	6,486	1,276	8,840	0	8,840	199	0	
October	6,467	1,286	8,927	0	8,927	5	0	
November	6,459	1,278	8,366	0	8,366	164	0	
December	6,531	1,290	7,653	0	7,653	267	0	
Average	6,452	1,296	8,225	0	8,225	145	0	
1998 January	6,541	1,229	8,339	0	8,339	60	0	
February	6,476	1,238	8,045	0	8,045	-264	0	
March	6,408	1,221	8,124	0	8,124	745	0	
April	6,483	1,200	8,985	0	8,985	336	0	
May	6,347	1,173	8,987	0	8,987	122	0	
June	6,267	1,135	8,795	0	8,795	-135	0	
July	6,194	1,155	9,507	0	9,507	144	(s)	
August	6,203	1,133	9,177	0	9,177	96	0	
September	5,789	1,093	8,500	0	8,500	-44	(s)	
October	6,143	1,197	8,667	0	8,667	-52	(s)	
November	6,140	1,168	8,940	0	8,940	74	0	
December	6,043	1,160	8,352	0	8,352	250	0	
Average	6,252	1,175	8,706	0	8,706	115	(s)	
1999 January	E 5,954	E 1,164	8,308	0	8,308	396	0	
February	E 5,984	E 1,104	8,387	0	8,387	209	(s)	
March	E 6,048	E 1,134	8,757	0	8,757	128	(s)	
April	E 5,977	E 1,056	9,080	0	9,080	122	0	
May	E 5,985	E 1,088	8,806	0	8,806	650	0	
June	E 5,880	E 967	8,601	0	8,601	183	0	
July	E 5,873	E 990	9,222	0	9,222	361	0	
August	E 5,912	E 1,011	8,684	0	8,684	272	0	
September	E 5,820	E 933	8,470	17	8,452	475	0	
October	RE 5,878	RE 1,068	R 8,439	R 17	R 8,422	R 254	0	
November*	PE 6,077	PE 1,033	E 8,198	E 0	E 8,198	E 276	E 0	
11-Mo. Average	PE 5,944	PE 1,050	E 8,635	E 3	E 8,632	E 304	E (s)	
1998 11-Mo. Average	6,271	1,176	8,739	0	8,739	102	(s)	
1997 11-Mo. Average	6,444	1,296	8,279	0	8,279	134	0	

^a Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

^b A negative number indicates a decrease in stocks and a positive number indicates an increase.

^c Stocks are totals as of end of period.

^d Crude oil stocks in the Strategic Petroleum Reserve include non-U.S. stocks held under foreign or commercial storage agreements.

^e Previously published as crude used directly.

^f Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

Footnotes continued on following page.

Table S2. Crude Oil Supply and Disposition, 1984 - Present (Continued)
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Disposition					Ending Stocks ^c (Million Barrels)		
	Stock Change ^b		Refinery Inputs	Exports	Product Supplied	Total	SPR ^d	Other Primary
	SPR ^d	Other						
1984 Average	195	4	12,044	181	64	796	451	345
1985 Average	117	-67	12,002	204	60	814	493	321
1986 Average	50	28	12,716	154	49	843	512	331
1987 Average	80	49	12,854	151	34	890	541	349
1988 Average	52	-51	13,246	155	40	890	560	330
1989 Average	56	30	13,401	142	28	921	580	341
1990 Average	16	-51	13,409	109	24	908	586	323
1991 Average	-47	5	13,301	116	18	893	569	325
1992 Average	17	-18	13,411	89	13	893	575	318
1993 Average	34	47	13,613	98	10	922	587	335
1994 Average	13	5	13,866	99	9	929	592	337
1995 Average	(s)	-93	13,973	95	7	895	592	303
1996 Average	-71	-53	14,195	110	6	850	566	284
1997 January	-75	537	13,664	141	5	864	563	301
February	(s)	-121	13,485	229	6	861	563	297
March	(s)	520	14,047	136	5	877	563	313
April	(s)	197	14,303	92	3	883	563	319
May	(s)	230	15,123	26	4	890	563	326
June	(s)	-199	15,170	57	2	884	563	320
July	(s)	-343	14,994	70	2	873	563	310
August	(s)	-283	15,271	110	(s)	864	563	301
September	(s)	95	15,308	122	(s)	867	563	304
October	(s)	393	14,854	152	0	879	563	316
November	(s)	252	14,706	32	0	887	563	324
December	(s)	-607	14,928	131	0	868	563	305
Average	-7	57	14,662	108	2	—	—	—
1998 January	(s)	389	14,319	231	0	880	563	317
February	(s)	38	14,023	197	0	881	563	318
March	0	538	14,639	99	0	898	563	334
April	0	556	15,085	163	0	915	563	351
May	(s)	-9	15,321	144	0	914	563	351
June	(s)	-620	15,485	63	0	896	563	332
July	(s)	187	15,554	104	0	901	563	338
August	0	-293	15,717	51	0	892	563	329
September	0	-641	14,851	34	0	873	563	310
October	19	658	13,994	87	0	894	564	330
November	150	170	14,772	60	0	904	569	335
December	93	-378	14,840	90	0	895	571	324
Average	22	52	14,889	110	0	—	—	—
1999 January	18	49	14,483	107	0	897	572	325
February	(s)	31	14,430	119	0	897	572	325
March	0	342	14,495	95	0	908	572	336
April	17	-209	15,039	332	0	902	572	330
May	37	369	14,946	88	0	915	574	341
June	40	-442	14,943	123	0	903	575	328
July	29	75	15,232	120	0	906	576	330
August	-27	-519	15,280	132	0	889	575	314
September	20	-389	15,107	27	0	878	575	303
October	R -103	R 29	R 14,590	R 56	0	R 876	R 572	R 303
November*	E -167	E -198	E 14,805	E 110	E 0	E 868	E 569	E 299
11-Mo. Average	E -12	E -76	E 14,852	E 119	E 0	—	—	—
1998 11-Mo. Average	15	92	14,893	112	0	—	—	—
1997 11-Mo. Average	-7	119	14,637	106	2	—	—	—

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

SPR = Strategic Petroleum Reserve.

— = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Crude oil includes lease condensate. • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Table S3. Crude Oil and Petroleum Product Imports, 1984 - Present
(Thousand Barrels per Day)

Year/Month	Imports from Arab-OPEC Sources							
	Algeria		Iraq		Kuwait ^b		Libya	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1984 Average	323	194	12	12	36	24	1	0
1985 Average	187	84	46	46	21	4	4	0
1986 Average	271	78	81	81	68	28	0	0
1987 Average	295	115	83	82	84	70	0	0
1988 Average	300	58	345	343	92	80	0	0
1989 Average	269	60	449	441	157	155	0	0
1990 Average	280	63	518	514	86	79	0	0
1991 Average	253	44	0	0	6	6	0	0
1992 Average	196	24	0	0	51	39	0	0
1993 Average	220	24	0	0	353	344	0	0
1994 Average	243	21	0	0	312	307	0	0
1995 Average	234	27	0	0	218	213	0	0
1996 Average	256	8	1	1	236	235	0	0
1997 January	282	0	0	0	209	209	0	0
February	319	0	0	0	172	172	0	0
March	309	0	35	35	315	315	0	0
April	320	23	84	84	204	204	0	0
May	290	0	102	102	128	128	0	0
June	349	0	115	115	361	361	0	0
July	291	0	88	88	331	331	0	0
August	261	4	(s)	(s)	229	229	0	0
September	259	6	0	0	322	322	0	0
October	272	3	177	177	349	349	0	0
November	267	7	220	220	220	220	0	0
December	208	28	240	240	188	188	0	0
Average	285	6	89	89	253	253	0	0
1998 January	316	0	36	36	252	252	0	0
February	295	0	0	0	338	338	0	0
March	255	0	127	127	374	374	0	0
April	336	0	254	254	311	311	0	0
May	330	0	137	137	399	399	0	0
June	362	21	270	270	275	275	0	0
July	308	20	286	286	435	435	0	0
August	264	0	713	713	273	273	0	0
September	306	0	517	517	259	259	0	0
October	289	21	636	636	241	227	0	0
November	219	22	542	542	224	224	0	0
December	200	31	486	486	228	228	0	0
Average	290	10	336	336	301	300	0	0
1999 January	240	20	471	471	132	132	0	0
February	203	0	681	681	205	205	0	0
March	298	6	791	791	324	324	0	0
April	304	80	824	824	286	279	0	0
May	293	107	720	720	227	227	0	0
June	245	7	691	691	259	259	0	0
July	302	48	670	670	311	311	0	0
August	249	0	660	660	348	348	0	0
September	255	4	748	748	261	261	0	0
October	183	0	867	867	205	205	0	0
10-Mo. Average	258	27	712	712	256	255	0	0
1998 10-Mo. Average	306	6	300	300	316	314	0	0
1997 10-Mo. Average	295	4	61	61	262	262	0	0

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1984 - Present (Continued)
(Thousand Barrels per Day)

Year/Month	Imports from Arab-OPEC Sources							
	Qatar		Saudi Arabia ^b		United Arab Emirates		Total Arab OPEC	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1984 Average	5	4	325	309	117	90	819	634
1985 Average	(s)	0	168	132	45	35	472	300
1986 Average	13	12	685	618	44	38	1,162	854
1987 Average	0	0	751	642	61	56	1,274	965
1988 Average	0	0	1,073	911	29	23	1,839	1,415
1989 Average	2	2	1,224	1,116	28	21	2,130	1,794
1990 Average	4	4	1,339	1,195	17	9	2,244	1,864
1991 Average	0	0	1,802	1,703	3	2	2,064	1,754
1992 Average	1	0	1,720	1,597	6	0	1,974	1,660
1993 Average	1	0	1,414	1,282	14	12	2,000	1,661
1994 Average	0	0	1,402	1,297	13	11	1,970	1,636
1995 Average	0	0	1,344	1,260	10	5	1,806	1,505
1996 Average	0	0	1,363	1,248	3	3	1,859	1,496
1997 January	0	0	1,344	1,253	0	0	1,835	1,462
February	0	0	1,361	1,250	0	0	1,852	1,421
March	0	0	1,292	1,157	0	0	1,950	1,506
April	15	0	1,573	1,408	0	0	2,197	1,720
May	0	0	1,475	1,333	0	0	1,996	1,564
June	0	0	1,299	1,174	6	0	2,130	1,650
July	0	0	1,313	1,188	14	0	2,037	1,607
August	0	0	1,636	1,516	0	0	2,127	1,750
September	0	0	1,599	1,511	0	0	2,180	1,839
October	16	0	1,377	1,282	0	0	2,191	1,812
November	0	0	1,308	1,257	0	0	2,015	1,704
December	15	0	1,311	1,192	0	0	1,962	1,649
Average	4	0	1,407	1,293	2	0	2,040	1,641
1998 January	0	0	1,515	1,438	0	0	2,119	1,726
February	18	18	1,470	1,360	0	0	2,121	1,716
March	0	0	1,552	1,406	13	13	2,321	1,920
April	0	0	1,527	1,348	20	20	2,446	1,933
May	0	0	1,362	1,279	0	0	2,228	1,815
June	15	0	1,647	1,566	0	0	2,569	2,132
July	15	0	1,615	1,575	0	0	2,660	2,315
August	0	0	1,500	1,468	0	0	2,750	2,453
September	0	0	1,606	1,532	0	0	2,689	2,308
October	0	0	1,316	1,228	0	0	2,483	2,113
November	0	0	1,386	1,323	0	0	2,371	2,111
December	0	0	1,402	1,326	0	0	2,316	2,071
Average	4	1	1,491	1,404	3	3	2,424	2,053
1999 January	0	0	1,511	1,410	0	0	2,354	2,032
February	0	0	1,510	1,437	0	0	2,599	2,324
March	34	0	1,645	1,584	0	0	3,092	2,704
April	31	0	1,444	1,379	5	0	2,894	2,563
May	0	0	1,502	1,406	0	0	2,742	2,460
June	0	0	1,515	1,419	19	0	2,729	2,375
July	0	0	1,412	1,271	0	0	2,695	2,300
August	18	0	1,394	1,299	3	0	2,671	2,306
September	14	0	1,451	1,341	0	0	2,729	2,354
October	0	0	1,284	1,188	0	0	2,539	2,260
10-Mo. Average	10	0	1,466	1,373	3	0	2,705	2,368
1998 10-Mo. Average	5	2	1,511	1,420	3	3	2,440	2,046
1997 10-Mo. Average	3	0	1,427	1,307	2	0	2,050	1,634

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1984 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Other-OPEC Sources							
		Ecuador ^c		Gabon ^d		Indonesia		Iran	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1984	Average	55	47	58	57	343	304	10	10
1985	Average	67	56	52	51	314	292	27	27
1986	Average	77	64	26	25	318	297	19	19
1987	Average	29	23	35	35	285	262	98	98
1988	Average	47	33	16	15	205	186	^g (s)	^g (s)
1989	Average	89	80	50	49	183	158	0	0
1990	Average	49	38	64	64	114	98	0	0
1991	Average	63	53	84	84	111	102	32	32
1992	Average	65	62	124	123	78	70	0	0
1993	Average	81	78	152	151	81	65	0	0
1994	Average	(c)	(c)	194	194	111	92	0	0
1995	Average	(c)	(c)	(d)	(d)	88	64	0	0
1996	Average	(c)	(c)	(d)	(d)	59	44	0	0
1997	January	(c)	(c)	(d)	(d)	55	38	0	0
	February	(c)	(c)	(d)	(d)	51	39	0	0
	March	(c)	(c)	(d)	(d)	18	15	0	0
	April	(c)	(c)	(d)	(d)	40	32	0	0
	May	(c)	(c)	(d)	(d)	86	86	0	0
	June	(c)	(c)	(d)	(d)	57	50	0	0
	July	(c)	(c)	(d)	(d)	73	66	0	0
	August	(c)	(c)	(d)	(d)	24	21	0	0
	September	(c)	(c)	(d)	(d)	90	83	0	0
	October	(c)	(c)	(d)	(d)	42	42	0	0
	November	(c)	(c)	(d)	(d)	79	74	0	0
	December	(c)	(c)	(d)	(d)	84	68	0	0
	Average	(c)	(c)	(d)	(d)	58	51	0	0
1998	January	(c)	(c)	(d)	(d)	36	33	0	0
	February	(c)	(c)	(d)	(d)	24	24	0	0
	March	(c)	(c)	(d)	(d)	50	47	0	0
	April	(c)	(c)	(d)	(d)	44	26	0	0
	May	(c)	(c)	(d)	(d)	21	21	0	0
	June	(c)	(c)	(d)	(d)	0	0	0	0
	July	(c)	(c)	(d)	(d)	96	84	0	0
	August	(c)	(c)	(d)	(d)	59	41	0	0
	September	(c)	(c)	(d)	(d)	73	54	0	0
	October	(c)	(c)	(d)	(d)	102	89	0	0
	November	(c)	(c)	(d)	(d)	183	138	0	0
	December	(c)	(c)	(d)	(d)	102	43	0	0
	Average	(c)	(c)	(d)	(d)	66	50	0	0
1999	January	(c)	(c)	(d)	(d)	80	75	0	0
	February	(c)	(c)	(d)	(d)	66	66	0	0
	March	(c)	(c)	(d)	(d)	43	40	0	0
	April	(c)	(c)	(d)	(d)	98	94	0	0
	May	(c)	(c)	(d)	(d)	82	76	0	0
	June	(c)	(c)	(d)	(d)	56	42	0	0
	July	(c)	(c)	(d)	(d)	38	33	0	0
	August	(c)	(c)	(d)	(d)	72	63	0	0
	September	(c)	(c)	(d)	(d)	94	66	0	0
	October	(c)	(c)	(d)	(d)	98	79	0	0
	10-Mo. Average ...	(c)	(c)	(d)	(d)	73	63	0	0
1998	10-Mo. Average ...	(c)	(c)	(d)	(d)	51	42	0	0
1997	10-Mo. Average ...	(c)	(c)	(d)	(d)	54	47	0	0

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1984 - Present (Continued)
(Thousand Barrels per Day)

Year/Month	Imports from Other-OPEC Sources						Total OPEC ^{c,d,e}	
	Nigeria		Venezuela		Total Other OPEC ^{c,d}			
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1984 Average	216	207	548	253	1,230	878	2,049	1,512
1985 Average	293	280	605	306	1,358	1,012	1,830	1,312
1986 Average	440	437	793	416	1,674	1,259	2,837	2,113
1987 Average	535	529	804	488	1,787	1,435	3,060	2,400
1988 Average	618	607	794	439	1,681	1,281	3,520	2,696
1989 Average	815	800	873	495	2,010	1,582	4,140	3,376
1990 Average	800	784	1,025	666	2,052	1,650	4,296	3,514
1991 Average	703	683	1,035	668	2,028	1,622	4,092	3,377
1992 Average	681	665	1,170	826	2,117	1,746	4,092	3,406
1993 Average	740	722	1,300	1,010	2,354	2,026	4,354	3,687
1994 Average	637	624	1,334	1,034	2,277	1,944	4,247	3,580
1995 Average	627	621	1,480	1,151	2,196	1,835	4,002	3,341
1996 Average	617	595	1,676	1,303	2,353	1,942	4,211	3,438
1997 January	548	522	1,641	1,215	2,243	1,775	4,078	3,237
February	625	620	1,601	1,262	2,278	1,920	4,130	3,341
March	542	541	1,769	1,348	2,329	1,904	4,279	3,410
April	756	747	1,695	1,319	2,491	2,098	4,688	3,818
May	992	975	1,927	1,449	3,005	2,510	5,001	4,073
June	919	919	1,893	1,508	2,869	2,478	4,999	4,128
July	580	571	1,738	1,418	2,391	2,055	4,429	3,662
August	882	866	1,794	1,394	2,700	2,280	4,827	4,030
September	769	769	1,822	1,478	2,680	2,329	4,860	4,168
October	688	675	1,991	1,605	2,722	2,323	4,913	4,134
November	649	649	1,689	1,418	2,416	2,141	4,431	3,845
December	423	423	1,699	1,304	2,205	1,795	4,168	3,444
Average	698	689	1,773	1,394	2,529	2,134	4,569	3,775
1998 January	630	625	1,597	1,319	2,262	1,977	4,382	3,703
February	560	560	1,764	1,357	2,348	1,941	4,469	3,657
March	845	845	1,698	1,313	2,594	2,205	4,915	4,126
April	822	822	1,743	1,423	2,610	2,272	5,056	4,205
May	899	892	1,911	1,549	2,831	2,463	5,058	4,278
June	771	755	1,616	1,374	2,387	2,129	4,956	4,261
July	873	871	1,779	1,445	2,747	2,400	5,407	4,716
August	736	726	1,703	1,349	2,498	2,116	5,247	4,569
September	502	496	1,490	1,199	2,064	1,749	4,753	4,057
October	633	626	1,963	1,548	2,699	2,263	5,181	4,376
November	574	545	1,708	1,367	2,466	2,050	4,837	4,161
December	490	483	1,651	1,271	2,244	1,797	4,560	3,868
Average	696	689	1,719	1,377	2,481	2,116	4,905	4,169
1999 January	687	686	1,615	1,222	2,382	1,983	4,736	4,015
February	687	661	1,710	1,290	2,463	2,017	5,062	4,341
March	659	630	1,335	998	2,036	1,668	5,129	4,372
April	901	866	1,694	1,357	2,693	2,317	5,587	4,880
May	606	572	1,472	1,186	2,160	1,834	4,902	4,294
June	703	667	1,388	1,067	2,147	1,776	4,875	4,151
July	636	614	1,501	1,239	2,176	1,886	4,870	4,187
August	800	766	1,390	1,151	2,262	1,980	4,933	4,286
September	535	505	1,418	1,120	2,046	1,691	4,775	4,045
October	543	522	1,333	1,041	1,975	1,642	4,514	3,902
10-Mo. Average	675	649	1,483	1,166	2,231	1,878	4,936	4,245
1998 10-Mo. Average	729	724	1,727	1,389	2,507	2,155	4,947	4,200
1997 10-Mo. Average	730	721	1,789	1,401	2,573	2,168	4,623	3,802

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1984 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Non-OPEC Sources ^a											
		Angola		Australia		Bahama Islands		Brazil		Canada		China, People's Republic of	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1984	Average	90	85	38	25	88	0	60	(s)	630	341	46	15
1985	Average	110	104	37	21	40	0	61	0	770	468	59	36
1986	Average	112	102	41	30	37	0	50	0	807	570	90	68
1987	Average	192	180	58	49	37	0	84	0	848	608	82	63
1988	Average	212	203	64	59	32	0	98	0	999	681	88	82
1989	Average	284	279	36	31	34	0	82	0	931	630	80	76
1990	Average	237	236	53	47	37	0	49	0	934	643	80	77
1991	Average	254	254	26	21	35	0	22	0	1,033	743	91	87
1992	Average	336	336	19	17	36	0	20	0	1,069	797	90	84
1993	Average	336	336	19	18	28	0	33	0	1,181	900	51	50
1994	Average	331	322	17	16	29	0	31	1	1,272	983	65	64
1995	Average	367	360	16	16	2	0	8	0	1,332	1,040	53	53
1996	Average	351	344	31	25	1	0	9	0	1,424	1,075	57	57
1997	January	485	485	21	21	0	0	1	0	1,571	1,162	84	84
	February	422	422	0	0	13	0	0	0	1,605	1,155	65	65
	March	467	461	37	37	0	0	4	0	1,508	1,158	120	120
	April	435	422	22	22	0	0	0	0	1,454	1,063	46	46
	May	374	369	61	44	0	0	0	0	1,571	1,203	21	21
	June	480	480	23	23	0	0	20	0	1,546	1,184	44	44
	July	416	416	77	48	0	0	21	0	1,547	1,201	0	0
	August	323	323	91	60	0	0	4	0	1,630	1,275	42	42
	September	428	428	67	27	0	0	3	0	1,577	1,250	49	43
	October	537	537	92	53	0	0	6	0	1,503	1,175	48	47
	November	480	480	23	23	0	0	2	0	1,559	1,213	22	22
	December	286	286	59	14	0	0	0	0	1,689	1,333	45	45
	Average	427	425	48	31	1	0	5	0	1,563	1,198	49	48
1998	January	430	427	10	0	0	0	6	0	1,703	1,336	15	14
	February	434	434	57	48	4	0	2	0	1,738	1,366	41	41
	March	353	351	44	30	0	0	27	0	1,464	1,132	64	63
	April	457	452	68	14	0	0	11	0	1,586	1,241	62	62
	May	516	508	82	60	21	0	42	0	1,600	1,302	70	70
	June	399	399	77	33	11	0	55	0	1,688	1,404	81	81
	July	591	591	69	48	0	0	29	0	1,669	1,364	73	73
	August	427	427	42	21	0	0	38	0	1,564	1,248	57	57
	September	506	502	77	23	10	0	33	0	1,575	1,227	20	20
	October	470	457	71	30	0	0	29	0	1,570	1,202	25	24
	November	524	520	31	31	0	0	19	0	1,495	1,199	0	0
	December	509	505	57	36	0	0	22	0	1,542	1,184	1	0
	Average	468	465	57	31	4	0	26	0	1,598	1,266	42	42
1999	January	389	389	0	0	0	0	2	0	1,617	1,235	(s)	0
	February	349	333	73	49	0	0	6	0	1,355	1,082	1	0
	March	283	283	53	53	0	0	5	0	1,359	1,053	30	30
	April	401	393	19	19	7	0	16	0	1,298	1,012	22	21
	May	283	276	55	37	23	0	29	0	1,471	1,133	2	0
	June	326	326	56	34	12	0	39	0	1,473	1,169	66	19
	July	316	316	30	30	8	0	31	0	1,670	1,342	19	19
	August	309	309	65	47	0	0	26	0	1,563	1,205	72	33
	September	465	465	110	65	0	0	16	0	1,392	1,062	37	34
	October	444	444	0	0	0	0	18	0	1,604	1,218	0	0
	10-Mo. Average ..	356	353	46	33	5	0	19	0	1,482	1,152	25	16
1998	10-Mo. Average ..	459	455	60	31	5	0	27	0	1,614	1,281	51	51
1997	10-Mo. Average ..	437	434	50	34	1	0	6	0	1,551	1,183	52	51

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1984 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Non-OPEC Sources ^a											
		Colombia		Ecuador ^c		Gabon ^d		Italy		Malaysia		Mexico	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1984	Average	8	0	(c)	(c)	(d)	(d)	45	(s)	1	0	748	659
1985	Average	23	0	(c)	(c)	(d)	(d)	60	(s)	3	1	816	715
1986	Average	87	57	(c)	(c)	(d)	(d)	76	0	12	11	699	621
1987	Average	148	115	(c)	(c)	(d)	(d)	54	1	13	12	655	602
1988	Average	134	106	(c)	(c)	(d)	(d)	65	5	19	19	747	674
1989	Average	172	136	(c)	(c)	(d)	(d)	34	3	39	39	767	716
1990	Average	182	140	(c)	(c)	(d)	(d)	58	2	41	40	755	689
1991	Average	163	123	(c)	(c)	(d)	(d)	47	3	24	24	807	759
1992	Average	126	102	(c)	(c)	(d)	(d)	55	0	10	10	830	787
1993	Average	171	141	(c)	(c)	(d)	(d)	31	0	11	10	919	863
1994	Average	161	146	91	91	(d)	(d)	22	0	10	6	984	939
1995	Average	219	207	97	96	229	229	5	0	8	6	1,068	1,027
1996	Average	234	226	104	96	184	184	8	0	11	6	1,244	1,207
1997	January	227	226	112	107	62	62	8	0	32	0	1,324	1,280
	February	248	248	110	110	262	262	27	0	7	7	1,277	1,241
	March	260	257	148	148	217	217	5	0	33	0	1,310	1,249
	April	255	255	73	73	203	203	26	0	33	0	1,448	1,416
	May	272	266	109	104	210	210	9	0	9	0	1,429	1,408
	June	228	228	132	132	226	226	0	0	32	24	1,401	1,382
	July	235	225	122	122	335	335	0	0	28	0	1,366	1,347
	August	250	250	128	128	203	203	2	0	23	15	1,452	1,448
	September	289	289	143	143	271	271	0	0	37	29	1,410	1,395
	October	321	321	143	143	235	235	8	0	19	19	1,526	1,500
	November	322	322	91	91	256	256	0	0	8	0	1,460	1,453
	December	350	350	66	66	288	288	5	0	7	0	1,215	1,192
	Average	271	270	115	114	230	230	7	0	23	8	1,385	1,360
1998	January	345	345	89	89	277	277	26	0	17	11	1,444	1,432
	February	301	294	103	103	278	278	6	0	64	49	1,250	1,233
	March	296	296	75	75	235	235	17	0	10	10	1,272	1,248
	April	358	358	88	81	244	244	2	0	82	66	1,538	1,507
	May	401	385	125	116	194	194	35	0	95	87	1,361	1,343
	June	321	313	75	67	126	126	18	0	35	19	1,400	1,379
	July	238	229	89	89	211	211	8	0	46	38	1,416	1,389
	August	367	363	158	158	118	118	10	0	11	4	1,153	1,139
	September	363	362	107	96	202	202	0	0	16	0	1,417	1,367
	October	411	409	130	125	115	115	18	0	9	0	1,179	1,163
	November	352	352	134	134	270	270	0	0	25	16	1,417	1,357
	December	488	479	41	38	220	220	6	0	19	10	1,371	1,301
	Average	354	349	101	98	207	207	12	0	35	26	1,351	1,321
1999	January	445	440	66	66	163	163	0	0	28	13	1,308	1,237
	February	480	458	45	45	141	141	17	0	20	0	1,278	1,231
	March	577	572	123	123	111	111	10	0	0	0	1,485	1,426
	April	435	425	61	61	269	269	19	0	27	14	1,360	1,313
	May	439	427	128	128	161	161	30	0	67	56	1,285	1,212
	June	322	315	112	112	92	92	8	0	31	22	1,320	1,271
	July	608	590	88	88	114	114	0	0	17	17	1,369	1,304
	August	576	561	133	133	95	95	0	0	53	49	1,288	1,174
	September	395	387	136	136	159	159	8	0	56	22	1,283	1,205
	October	432	432	163	163	186	186	7	0	39	36	1,184	1,124
	10-Mo. Average ...	472	461	106	106	149	149	10	0	34	23	1,316	1,250
1998	10-Mo. Average ...	340	336	104	100	199	199	14	0	38	28	1,343	1,320
1997	10-Mo. Average ...	259	257	122	121	222	222	8	0	26	9	1,395	1,368

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1984 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Non-OPEC Sources ^a											
		Netherlands		Netherlands Antilles		Norway		Puerto Rico		Russia ^f		Spain	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1984	Average	65	3	188	0	114	112	42	0	13	(s)	11	0
1985	Average	58	0	40	0	32	31	28	0	8	(s)	29	1
1986	Average	54	0	25	0	60	53	21	0	18	(s)	53	0
1987	Average	60	0	29	0	80	70	21	0	11	0	55	0
1988	Average	61	0	36	0	67	62	22	0	29	0	68	0
1989	Average	49	0	42	0	138	127	32	0	48	0	67	0
1990	Average	55	0	31	0	102	96	32	0	45	1	47	0
1991	Average	29	0	81	0	82	74	27	0	29	1	33	0
1992	Average	26	0	65	0	127	119	26	0	18	5	32	0
1993	Average	10	0	82	0	142	137	29	0	55	36	37	0
1994	Average	32	0	98	0	202	190	22	0	30	27	37	0
1995	Average	15	0	52	0	273	258	15	0	25	14	16	1
1996	Average	19	0	64	0	313	293	20	0	25	18	29	1
1997	January	40	0	94	0	244	230	18	0	21	0	31	0
	February	33	0	60	0	204	179	16	0	19	0	36	0
	March	40	0	102	0	295	276	7	0	13	0	6	0
	April	20	0	114	0	307	294	12	0	20	0	9	0
	May	13	0	116	0	388	366	21	0	0	0	23	0
	June	37	0	66	0	329	318	13	0	8	0	45	0
	July	5	0	61	0	386	360	24	0	9	0	6	0
	August	15	0	65	0	321	320	20	0	32	19	41	0
	September	54	0	71	0	285	265	14	0	0	0	21	0
	October	13	0	46	0	346	312	19	0	13	6	12	0
	November	28	0	33	0	316	276	23	0	21	7	19	0
	December	1	0	54	0	275	249	10	0	0	0	5	0
	Average	25	0	74	0	309	288	16	0	13	3	21	0
1998	January	10	0	97	0	217	208	18	0	0	0	22	0
	February	25	0	101	0	169	169	21	0	12	0	13	0
	March	5	0	80	0	210	198	5	0	3	0	4	0
	April	40	0	73	0	232	232	7	0	(s)	0	9	0
	May	36	0	67	0	196	172	18	0	0	0	14	0
	June	31	0	103	0	283	252	13	0	34	34	26	0
	July	59	0	84	0	369	361	21	0	69	69	34	0
	August	21	0	45	0	287	260	23	0	1	0	17	0
	September	26	0	69	0	201	162	12	0	34	0	16	0
	October	49	0	95	0	199	186	20	0	15	0	4	0
	November	53	0	124	0	262	252	12	0	54	0	28	0
	December	14	0	46	0	202	199	15	0	63	0	33	0
	Average	31	0	82	0	236	221	15	0	24	9	18	0
1999	January	37	0	94	0	216	179	18	0	11	0	4	0
	February	7	0	155	0	203	157	0	0	28	0	3	0
	March	19	0	58	0	248	199	3	0	26	0	5	0
	April	34	0	76	0	254	192	15	0	41	22	13	0
	May	57	0	77	0	276	244	10	0	79	40	26	0
	June	22	0	28	0	491	463	15	0	131	22	0	0
	July	34	0	83	0	351	341	13	0	105	32	8	0
	August	35	0	58	0	238	222	12	0	121	0	13	0
	September	2	0	30	0	235	195	22	0	124	0	(s)	0
	October	17	0	49	0	341	292	13	0	110	0	22	0
	10-Mo. Average ..	27	0	70	0	286	249	12	0	78	12	10	0
1998	10-Mo. Average ..	30	0	81	0	237	221	16	0	17	10	16	0
1997	10-Mo. Average ..	27	0	80	0	312	293	17	0	13	2	23	0

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1984 - Present (Continued)
(Thousand Barrels per Day)

Year/Month	Imports from Non-OPEC Sources ^a										Total Imports	
	Trinidad and Tobago		United Kingdom		Virgin Islands		Other Non-OPEC		Total Non-OPEC ^{c,d}			
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1984 Average	94	87	402	378	294	0	411	210	3,388	1,914	5,437	3,426
1985 Average	113	98	310	278	247	0	394	137	3,237	1,888	5,067	3,201
1986 Average	125	93	350	317	244	0	426	144	3,387	2,065	6,224	4,178
1987 Average	106	75	352	304	272	0	459	196	3,617	2,274	6,678	4,674
1988 Average	97	71	315	254	242	0	487	196	3,882	2,411	7,402	5,107
1989 Average	94	73	215	160	321	0	457	197	3,921	2,467	8,061	5,843
1990 Average	96	76	189	155	282	0	417	180	3,721	2,381	8,018	5,894
1991 Average	88	72	138	106	243	0	282	137	3,535	2,405	7,627	5,782
1992 Average	95	70	230	200	249	0	335	149	3,796	2,676	7,888	6,083
1993 Average	74	55	350	312	254	0	452	240	4,266	3,100	8,620	6,787
1994 Average	77	62	458	396	328	0	450	239	4,749	3,483	8,996	7,063
1995 Average	70	62	383	341	278	0	302	181	4,833	3,889	8,835	7,230
1996 Average	76	58	308	216	313	0	440	265	5,267	4,070	9,478	7,508
1997 January	74	55	400	333	335	0	502	210	5,685	4,255	9,763	7,492
February	69	61	236	172	341	0	380	170	5,431	4,093	9,561	7,434
March	56	55	236	161	254	0	437	206	5,554	4,344	9,833	7,754
April	69	62	159	70	321	0	401	242	5,426	4,169	10,114	7,987
May	70	66	261	181	300	0	558	341	5,817	4,579	10,818	8,653
June	55	55	372	311	300	0	380	225	5,737	4,631	10,736	8,759
July	62	54	198	165	310	0	370	243	5,579	4,515	10,008	8,178
August	41	37	268	220	319	0	368	251	5,638	4,591	10,465	8,621
September	66	58	166	110	248	0	476	364	5,677	4,672	10,537	8,840
October	58	55	154	119	301	0	479	271	5,879	4,793	10,792	8,927
November	65	57	127	87	260	0	403	236	5,517	4,521	9,948	8,366
December	53	53	135	98	314	0	304	235	5,160	4,208	9,328	7,653
Average	61	56	226	169	300	0	422	250	5,593	4,450	10,162	8,225
1998 January	64	54	249	166	283	0	424	276	5,745	4,636	10,127	8,339
February	60	60	170	89	296	0	378	224	5,522	4,388	9,991	8,045
March	63	53	95	70	334	0	464	236	5,119	3,998	10,034	8,124
April	78	48	309	221	272	0	533	254	6,048	4,780	11,105	8,985
May	69	53	248	133	292	0	561	287	6,046	4,709	11,104	8,987
June	64	56	231	125	310	0	589	245	5,970	4,533	10,926	8,795
July	90	56	171	36	360	0	545	235	6,242	4,791	11,649	9,507
August	79	53	384	295	281	0	703	466	5,785	4,607	11,032	9,177
September	44	38	154	109	277	0	589	335	5,746	4,443	10,499	8,500
October	65	57	384	278	268	0	554	245	5,680	4,291	10,861	8,667
November	38	38	400	283	266	0	520	327	6,023	4,779	10,860	8,940
December	79	72	199	119	274	0	498	321	5,698	4,484	10,258	8,352
Average	66	53	250	161	293	0	531	288	5,803	4,537	10,708	8,706
1999 January	52	34	215	167	300	0	479	370	5,445	4,292	10,181	8,308
February	48	38	243	165	289	0	534	348	5,274	4,046	10,336	8,387
March	28	18	296	242	319	0	422	276	5,460	4,386	10,589	8,757
April	49	37	319	143	258	0	648	280	5,640	4,200	11,227	9,080
May	24	18	558	479	298	0	585	302	5,963	4,512	10,865	8,806
June	58	33	325	299	268	0	555	273	5,749	4,450	10,624	8,601
July	57	31	616	510	259	0	585	300	6,380	5,036	11,250	9,222
August	53	36	307	256	206	0	576	278	5,801	4,398	10,734	8,684
September	83	67	461	383	278	0	500	244	5,791	4,424	10,566	8,470
October	75	66	337	267	284	0	591	310	5,914	4,537	10,628	8,439
10-Mo. Average ...	53	38	369	292	276	0	547	298	5,747	4,433	10,482	8,678
1998 10-Mo. Average ...	68	53	240	153	297	0	535	281	5,792	4,518	10,739	8,719
1997 10-Mo. Average ...	62	56	245	184	303	0	436	253	5,645	4,468	10,268	8,270

^a Includes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC) primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

^b Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from Saudi Arabia.

^c On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^d On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^e Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

^f Imports from other States in the former U.S.S.R. may be included in imports from Russia for the years 1981 through 1992.

^g A small amount of Iranian crude oil entered the United States in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

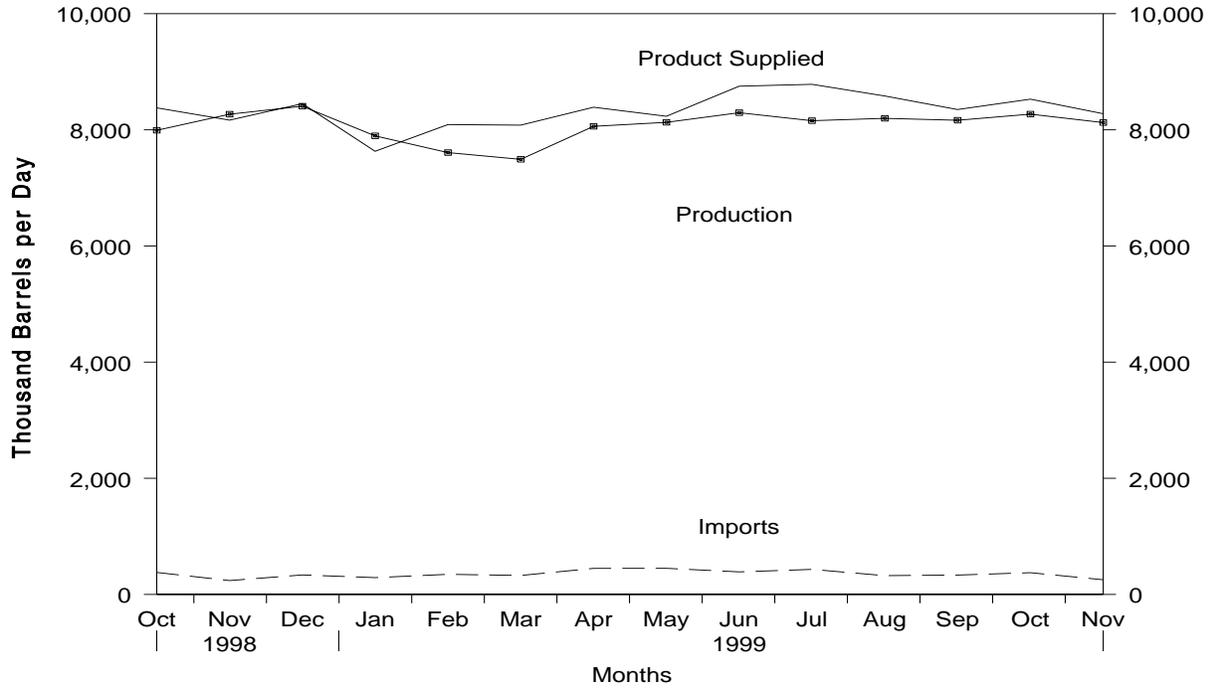
(s) = Less than 500 barrels per day.

— = Not Applicable.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

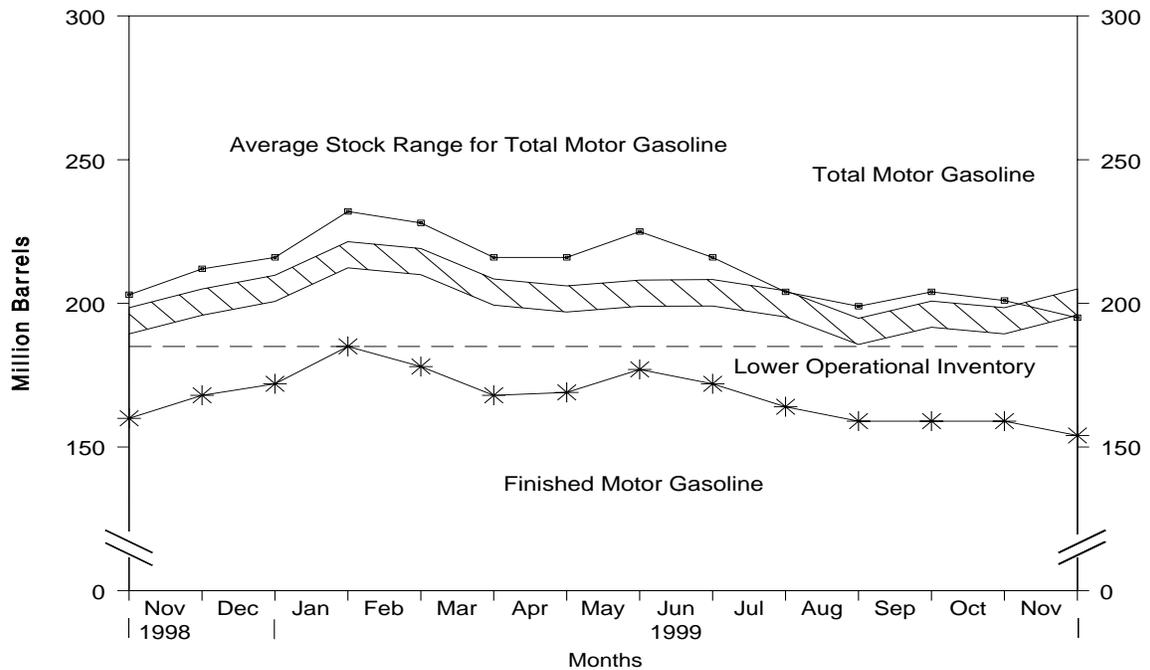
Source: See Summary Statistics Table and Figure Sources.

Figure S5. Finished Motor Gasoline Supply and Disposition, October 1998 - Present



Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S4. See Summary Statistics Table and Figure Sources.

Figure S6. Motor Gasoline Ending Stocks, October 1998 - Present



Note: • Total motor gasoline includes motor gasoline blending components and finished motor gasoline. • The Lower Operational Inventory for total motor gasoline stocks is 185.0 million barrels.

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S4. See Summary Statistics Table and Figure Sources.

Table S4. Finished Motor Gasoline Supply and Disposition, 1984 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply		Disposition			Ending Stocks ^a (Million Barrels)		Ending Stocks (Million Barrels)
	Total Production ^b	Imports ^c	Stock Change ^{c,d}	Exports	Product Supplied ^b	Motor Gasoline		Oxygenates
						Total ^e	Finished	
1984 Average	6,453	299	54	6	6,693	243	205	—
1985 Average	6,419	381	-41	10	6,831	223	190	—
1986 Average	6,752	326	11	33	7,034	233	194	—
1987 Average	6,841	384	-15	35	7,206	226	189	—
1988 Average	6,956	405	3	22	7,336	228	190	—
1989 Average	6,963	369	-35	39	7,328	213	177	—
1990 Average	6,959	342	10	55	7,235	220	181	—
1991 Average	6,975	297	3	82	7,188	219	182	—
1992 Average	7,058	294	-11	96	7,268	216	178	—
1993 Average	7,360	247	26	105	7,476	226	187	13
1994 Average	7,312	356	-31	97	7,601	215	176	17
1995 Average	7,588	265	-40	104	7,789	202	161	12
1996 Average	7,647	336	-12	104	7,891	195	157	13
1997 January	7,307	320	250	75	7,301	208	165	13
February	7,341	324	-114	111	7,668	204	162	13
March	7,302	370	-247	123	7,796	200	154	14
April	7,811	300	-70	117	8,064	197	152	13
May	8,081	362	203	101	8,139	202	158	13
June	8,186	387	189	96	8,288	204	164	12
July	7,954	291	-414	164	8,496	190	151	13
August	8,075	292	-41	175	8,233	187	150	13
September	8,158	269	275	130	8,023	198	158	13
October	8,037	291	1	186	8,141	200	158	12
November	7,999	239	122	151	7,965	203	162	12
December	8,160	265	154	206	8,065	210	166	12
Average	7,870	309	26	137	8,017	—	—	—
1998 January	7,744	259	256	128	7,618	221	174	13
February	7,476	316	-43	124	7,711	221	173	14
March	7,640	281	-203	121	8,004	216	167	14
April	8,144	294	45	81	8,312	215	168	14
May	8,224	342	185	103	8,279	220	174	13
June	8,474	318	113	159	8,520	222	177	14
July	8,300	328	-169	117	8,680	216	172	14
August	8,228	331	-151	141	8,568	210	167	13
September	8,048	310	-116	163	8,310	207	164	13
October	7,992	379	-128	121	8,378	203	160	12
November	8,269	239	253	89	8,167	212	168	13
December	8,406	336	137	153	8,451	216	172	14
Average	8,082	311	15	125	8,253	—	—	—
1999 January	7,896	289	426	130	7,630	232	185	14
February	7,608	347	-240	105	8,091	228	178	15
March	7,492	327	-343	81	8,081	216	168	15
April	8,061	449	36	85	8,389	216	169	13
May	8,129	450	247	100	8,233	225	177	15
June	8,295	389	-139	71	8,752	216	172	14
July	8,157	432	-283	89	8,783	204	164	13
August	8,198	324	-162	101	8,583	199	159	14
September	8,165	334	22	128	8,350	204	159	15
October	R 8,270	R 375	R -13	R 130	R 8,528	R 201	R 159	15
November*	E 8,125	E 253	E -15	E 114	E 8,278	E 195	E 154	NA
11-Mo. Average	E 8,038	E 361	E -41	E 103	E 8,337	—	—	—
1998 11-Mo. Average	8,052	309	4	122	8,235	—	—	—
1997 11-Mo. Average	7,843	313	14	130	8,012	—	—	—

^a Stocks are totals as of end of period.

^b Beginning in 1993, motor gasoline production and product supplied includes blending of fuel ethanol and an adjustment to correct for the imbalance of motor gasoline blending components.

^c Beginning in 1981, excludes blending components.

^d A negative number indicates a decrease in stocks and a positive number indicates an increase.

^e Includes motor gasoline blending components but excludes stocks of oxygenates.

^f In January 1981 and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

R = Revised data. E = Estimated. NA = Not Available.

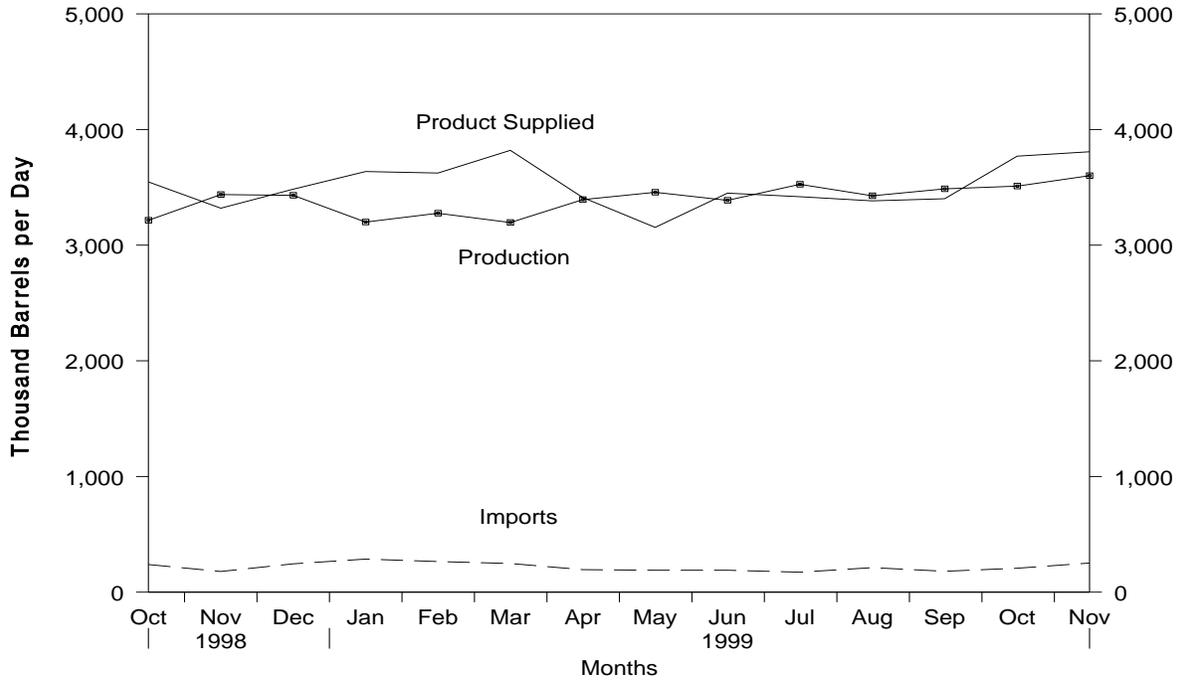
— = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

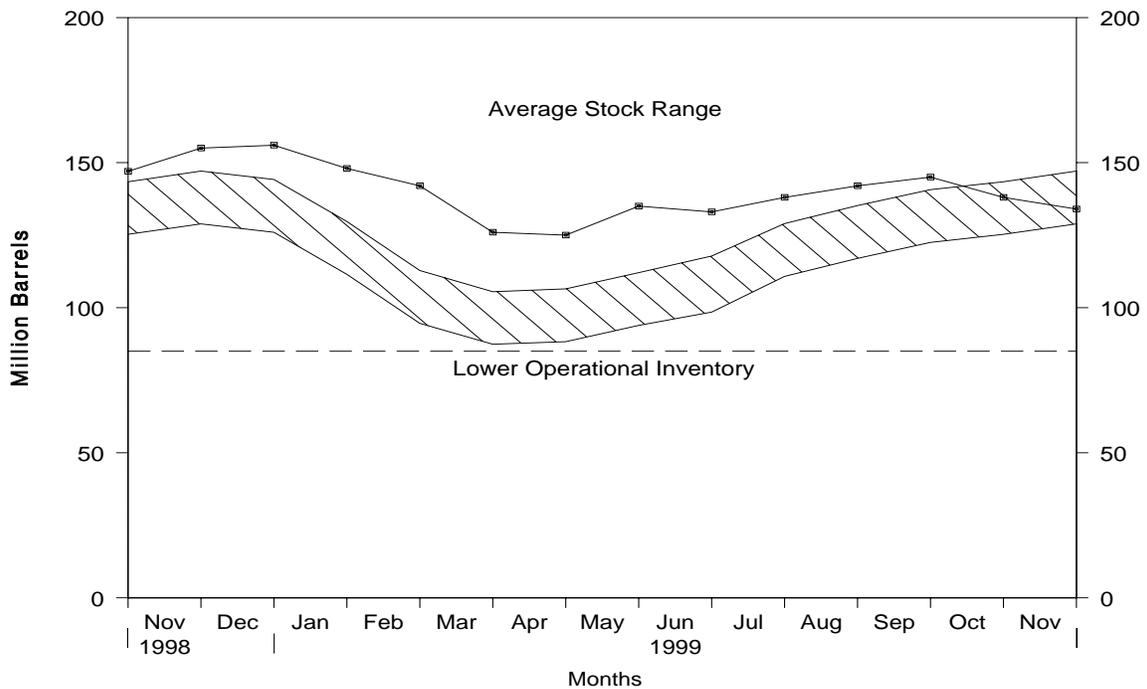
Source: See Summary Statistics Table and Figure Sources.

Figure S7. Distillate Fuel Oil Supply and Disposition, October 1998 - Present



Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S5. See Summary Statistics Table and Figure Sources.

Figure S8. Distillate Fuel Oil Ending Stocks, October 1998 - Present



Note: The Lower Operational Inventory for distillate fuel oil stocks is 85.0 million barrels.

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S5. See Summary Statistics Table and Figure Sources.

Table S5. Distillate Fuel Oil Supply and Disposition, 1984 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply ^a		Disposition			Ending Stocks ^b (Million Barrels)		
	Total Production	Imports	Stock Change ^c	Exports	Product Supplied ^a	Total	0.05% Sulfur and Under	Greater than 0.05% Sulfur
1984 Average	2,681	272	57	51	2,845	161	—	—
1985 Average	2,687	200	-48	67	2,868	144	—	—
1986 Average	2,798	247	31	100	2,914	155	—	—
1987 Average	2,731	255	-56	66	2,976	134	—	—
1988 Average	2,859	302	-30	69	3,122	124	—	—
1989 Average	2,899	306	-49	97	3,157	106	—	—
1990 Average	2,925	278	73	109	3,021	132	—	—
1991 Average	2,962	205	31	215	2,921	144	—	—
1992 Average	2,974	216	-8	219	2,979	141	—	—
1993 Average	3,132	184	1	274	3,041	141	64	77
1994 Average	3,205	203	12	234	3,162	145	73	73
1995 Average	3,155	193	-41	183	3,207	130	67	63
1996 Average	3,316	230	-10	190	3,365	127	68	58
1997 January	3,119	293	-508	133	3,786	111	60	51
February	3,090	246	-197	107	3,427	105	56	49
March	3,244	245	-137	120	3,505	101	58	43
April	3,280	256	-134	166	3,504	97	59	39
May	3,527	220	359	153	3,235	108	63	45
June	3,523	219	326	174	3,243	118	65	53
July	3,365	223	161	151	3,275	123	64	59
August.....	3,439	202	320	185	3,136	133	69	64
September	3,445	210	189	160	3,306	139	69	70
October	3,480	213	-89	133	3,650	136	63	73
November	3,566	175	156	149	3,435	141	68	73
December	3,604	232	-70	192	3,714	138	68	70
Average	3,392	228	32	152	3,435	—	—	—
1998 January	3,323	195	-182	133	3,566	133	68	65
February	3,280	213	-184	79	3,598	128	65	63
March	3,397	237	-100	129	3,606	125	64	61
April	3,468	209	26	186	3,465	125	63	63
May	3,560	185	355	121	3,268	136	68	68
June	3,520	202	(s)	149	3,574	136	68	68
July	3,569	229	343	161	3,294	147	73	74
August.....	3,482	181	67	150	3,446	149	72	77
September	3,399	203	118	107	3,377	153	73	80
October	3,215	239	-169	75	3,547	147	69	79
November	3,438	179	242	54	3,320	155	74	81
December	3,431	245	47	145	3,484	156	77	79
Average	3,424	210	48	124	3,461	—	—	—
1999 January	3,200	286	-268	117	3,637	148	75	73
February	3,276	265	-199	116	3,624	142	74	68
March	3,196	248	-534	159	3,820	126	69	57
April	3,394	195	-14	191	3,412	125	68	57
May	3,457	190	306	187	3,154	135	72	63
June	3,388	190	-53	180	3,450	133	68	65
July	3,526	173	157	123	3,419	138	71	67
August	3,427	212	127	130	3,383	142	69	73
September	3,487	181	104	162	3,402	145	73	72
October	R 3,511	R 207	R -243	R 192	R 3,770	R 138	R 69	R 69
November*	E 3,601	E 252	E -81	E 126	E 3,808	E 134	E 69	E 65
11-Mo. Average	E 3,406	E 218	E -63	E 153	E 3,534	—	—	—
1998 11-Mo. Average	3,424	207	48	123	3,459	—	—	—
1997 11-Mo. Average	3,372	227	42	148	3,410	—	—	—

^a Excludes 10,000 barrels per day in 1981 and 1982 previously published as crude used directly.

^b Stocks are totals as of end of period.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase.

^d In January 1981 and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. Stock changes are calculated using new stock basis stock levels. See Summary Statistics Explanatory Note 4.

R = Revised data. E = Estimated.

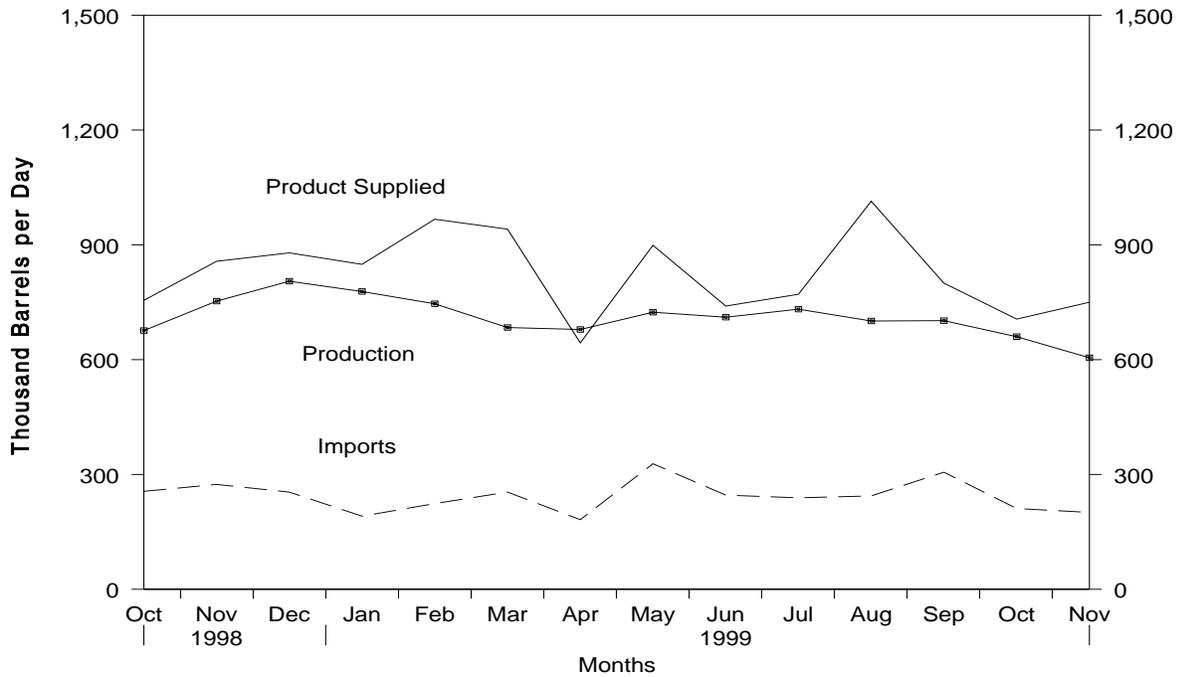
— = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

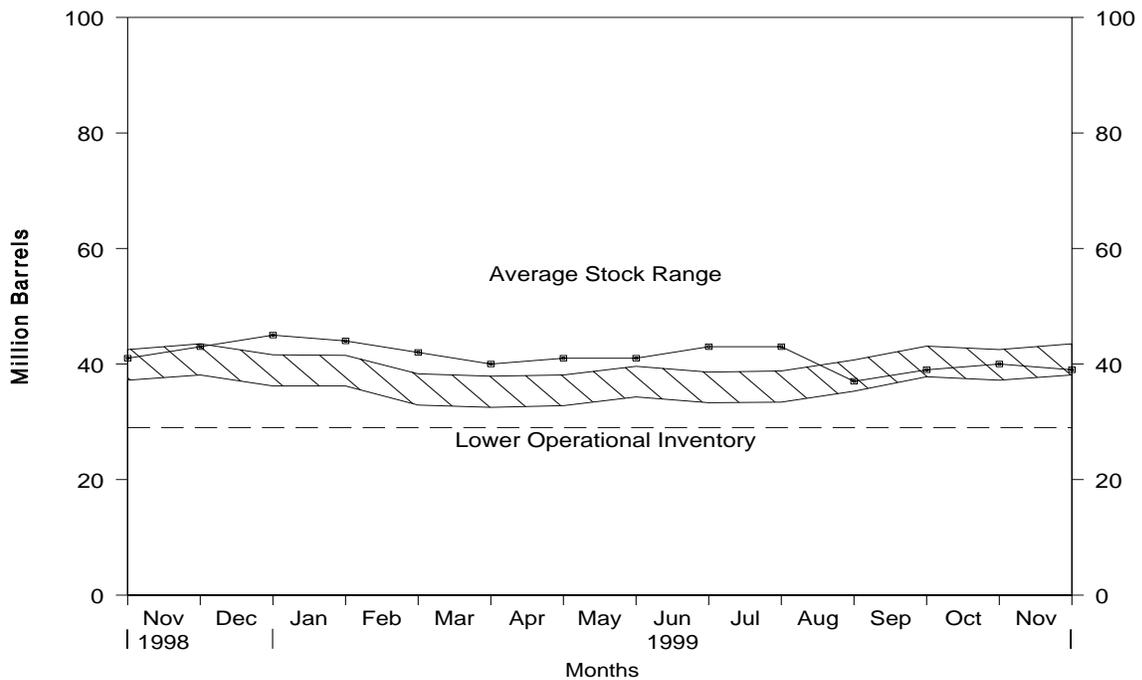
Source: See Summary Statistics Table and Figure Sources.

Figure S9. Residual Fuel Oil Supply and Disposition, October 1998 - Present



Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S6. See Summary Statistics Table and Figure Sources.

Figure S10. Residual Fuel Oil Ending Stocks, October 1998 - Present



Note: The Lower Operational Inventory for residual fuel oil stocks is 29.0 million barrels.

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S6. See Summary Statistics Table and Figure Sources.

Table S6. Residual Fuel Oil Supply and Disposition, 1984 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply ^a		Disposition			Ending Stocks ^c (Million Barrels)
	Total Production	Imports	Stock Change ^b	Exports	Product Supplied ^a	
1984 Average	891	681	12	190	1,369	53
1985 Average	882	510	-7	197	1,202	50
1986 Average	889	669	-8	147	1,418	47
1987 Average	885	565	(s)	186	1,264	47
1988 Average	926	644	-8	200	1,378	45
1989 Average	954	629	-2	215	1,370	44
1990 Average	950	504	13	211	1,229	49
1991 Average	934	453	4	226	1,158	50
1992 Average	892	375	-20	193	1,094	43
1993 Average	835	373	4	123	1,080	44
1994 Average	826	314	-6	125	1,021	42
1995 Average	788	187	-13	136	852	37
1996 Average	726	248	24	102	848	46
1997 January	801	211	-131	171	972	42
February	795	253	-66	137	977	40
March	638	239	46	89	742	41
April	617	250	-29	105	791	41
May	618	175	-44	102	736	39
June	727	168	(s)	130	765	39
July	643	177	-119	159	781	35
August	644	187	31	80	720	36
September	687	146	-54	91	797	35
October	723	158	41	133	707	36
November	789	204	61	122	809	38
December	818	167	83	120	781	40
Average	708	194	-15	120	797	—
1998 January	765	268	-25	131	927	40
February	672	218	-53	120	824	38
March	790	231	79	135	808	41
April	857	302	-47	168	1,038	39
May	766	206	-13	227	757	39
June	739	277	30	152	835	40
July	778	422	-4	124	1,080	40
August	782	305	71	105	911	42
September	749	288	-70	133	974	40
October	676	256	38	139	755	41
November	753	274	61	110	857	43
December	805	254	72	108	879	45
Average	762	275	12	138	887	—
1999 January	778	191	-13	133	849	44
February	746	224	-67	70	967	42
March	684	254	-75	72	941	40
April	679	182	32	185	644	41
May	724	328	(s)	153	899	41
June	711	246	67	151	740	43
July	732	239	18	182	771	43
August	701	244	-193	124	1,014	37
September	702	306	73	136	800	39
October	^R 660	^R 211	^R 35	^R 130	^R 706	^R 40
November*	^E 605	^E 201	^E -76	^E 132	^E 750	^E 39
11-Mo. Average	^E 702	^E 239	^E -18	^E 134	^E 825	—
1998 11-Mo. Average	758	277	7	140	888	—
1997 11-Mo. Average	697	197	-24	120	798	—

^a Excludes 48,000 barrels per day in 1981 and 1982 previously published as crude used directly.

^b A negative number indicates a decrease in stocks and a positive number indicates an increase.

^c Stocks are totals as of end of period.

^d In January 1981 and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

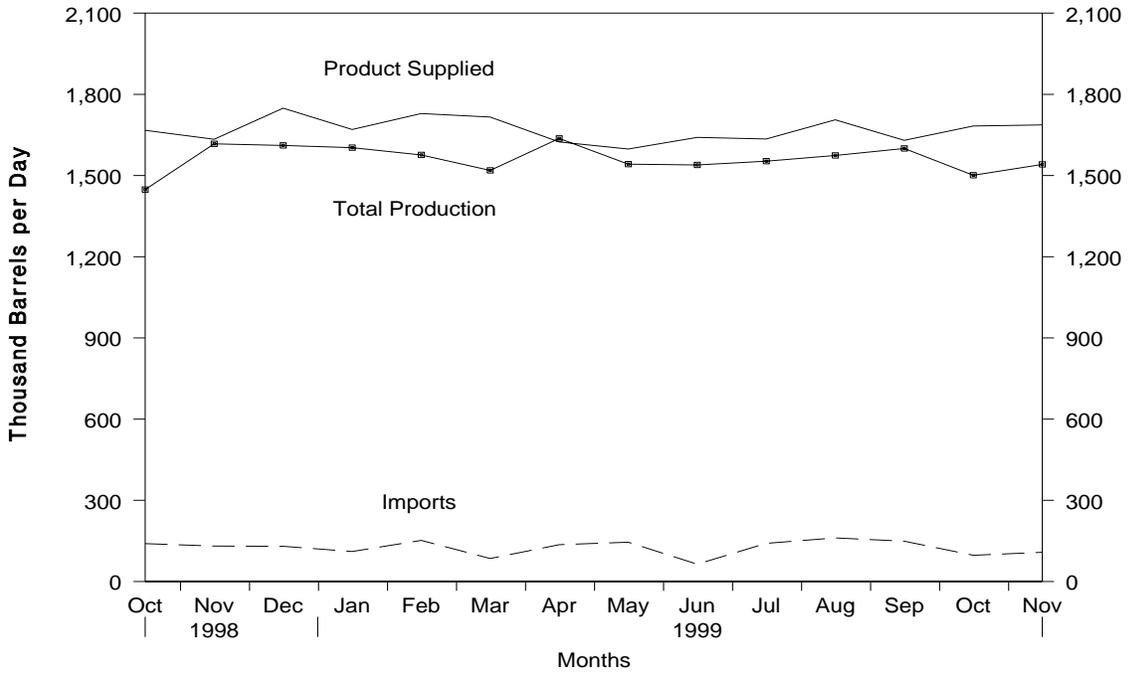
— = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

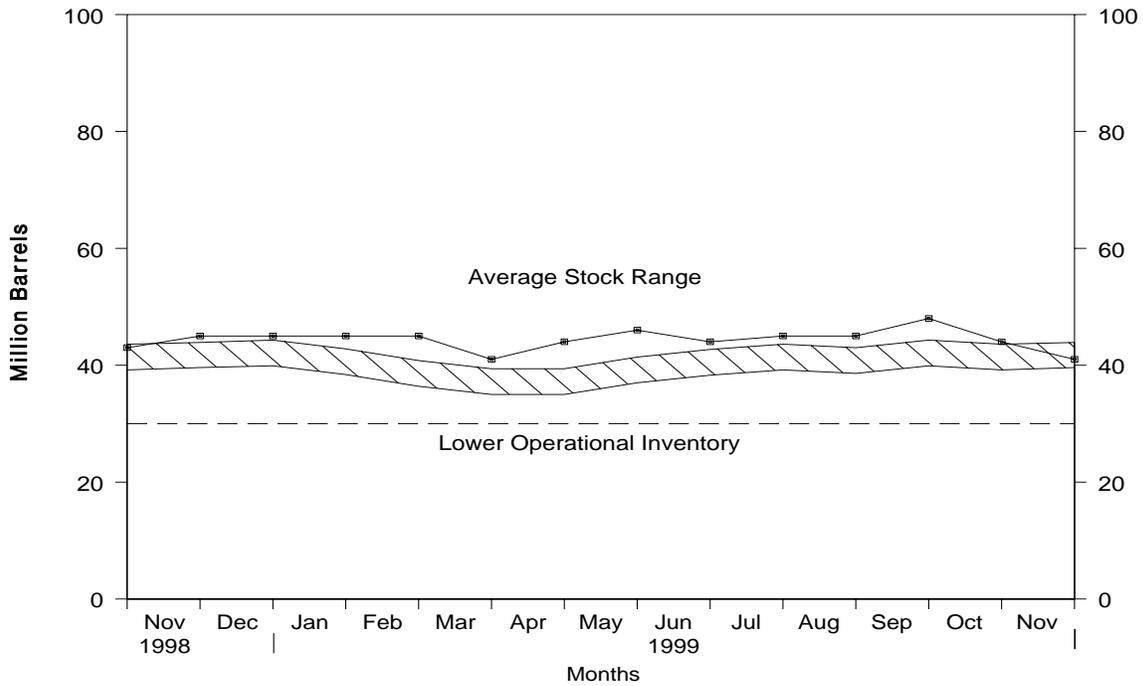
Source: See Summary Statistics Table and Figure Sources.

Figure S11. Jet Fuel Supply and Disposition, October 1998 - Present



Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S7. See Summary Statistics Table and Figure Sources.

Figure S12. Jet Fuel Ending Stocks, October 1998 - Present



Note: The Lower Operational Inventory for total jet fuel stocks is 30.0 million barrels.

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S7. See Summary Statistics Table and Figure Sources.

Table S7. Jet Fuel Supply and Disposition, 1984 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply			Disposition				Ending Stocks ^a (Million Barrels)	
	Production		Imports	Stock Change ^b	Exports	Product Supplied		Total	Kerosene-Type
	Total	Kerosene-Type				Total	Kerosene-Type		
1984 Average	1,132	919	62	9	9	1,175	953	42	35
1985 Average	1,189	983	39	-4	13	1,218	1,005	40	34
1986 Average	1,293	1,097	57	25	18	1,307	1,105	50	43
1987 Average	1,343	1,138	67	(s)	24	1,385	1,181	50	42
1988 Average	1,370	1,164	90	-17	28	1,449	1,236	44	38
1989 Average	1,403	1,197	106	-8	27	1,489	1,284	41	34
1990 Average	1,488	1,311	108	31	43	1,522	1,340	52	46
1991 Average	1,438	1,274	67	-9	43	1,471	1,296	49	44
1992 Average	1,399	1,254	82	-16	43	1,454	1,310	43	39
1993 Average	1,422	1,309	100	-7	59	1,469	1,357	40	38
1994 Average	1,448	1,410	117	18	20	1,527	1,480	47	46
1995 Average	1,416	1,407	106	-19	26	1,514	1,497	40	39
1996 Average	1,515	1,513	111	(s)	48	1,578	1,575	40	40
1997 January	1,491	1,491	100	-101	78	1,615	1,614	37	37
February	1,511	1,510	116	31	23	1,572	1,571	38	38
March	1,488	1,487	106	55	11	1,529	1,528	39	39
April	1,493	1,492	98	11	21	1,559	1,558	40	40
May	1,515	1,514	91	46	9	1,551	1,551	41	41
June	1,581	1,580	108	77	38	1,574	1,573	43	43
July	1,619	1,618	86	-14	33	1,685	1,685	43	43
August	1,580	1,579	103	7	27	1,648	1,648	43	43
September	1,593	1,592	87	78	16	1,586	1,585	46	46
October	1,581	1,580	77	19	40	1,599	1,599	46	46
November	1,609	1,608	55	8	44	1,612	1,612	46	46
December	1,588	1,588	63	-75	78	1,647	1,647	44	44
Average	1,554	1,554	91	11	35	1,599	1,598	—	—
1998 January	1,513	1,512	85	3	37	1,559	1,558	44	44
February	1,443	1,443	127	-61	25	1,606	1,605	42	42
March	1,504	1,503	144	23	36	1,589	1,596	43	43
April	1,524	1,523	106	-56	32	1,654	1,654	41	41
May	1,494	1,493	151	54	25	1,567	1,568	43	43
June	1,555	1,554	116	35	25	1,611	1,611	44	44
July	1,504	1,503	117	-65	28	1,658	1,659	42	42
August	1,608	1,608	146	141	8	1,605	1,605	46	46
September	1,482	1,482	91	-17	26	1,564	1,565	46	46
October	1,448	1,447	140	-102	22	1,667	1,668	43	43
November	1,617	1,617	131	89	25	1,634	1,634	45	45
December	1,611	1,611	130	-26	17	1,749	1,750	45	45
Average	1,526	1,525	124	2	26	1,622	1,623	—	—
1999 January	1,603	1,603	111	18	26	1,670	1,670	45	45
February	1,576	1,576	152	-10	9	1,729	1,729	45	45
March	1,519	1,518	85	-136	23	1,716	1,717	41	41
April	1,637	1,637	136	121	29	1,624	1,628	44	44
May	1,542	1,542	145	56	33	1,598	1,598	46	46
June	1,539	1,538	64	-74	36	1,641	1,650	44	44
July	1,553	1,552	141	20	39	1,635	1,638	45	44
August	1,574	1,574	161	21	9	1,706	1,706	45	45
September	1,600	1,600	149	85	34	1,630	1,631	48	48
October	R 1,501	R 1,500	R 97	R -112	R 28	R 1,683	R 1,684	R 44	R 44
November*	E 1,541	E 1,540	E 108	E -68	E 29	E 1,687	E 1,687	E 41	E 41
11-Mo. Average	E 1,562	E 1,562	E 122	E -7	E 27	E 1,665	E 1,667	—	—
1998 11-Mo. Average	1,518	1,517	123	4	26	1,610	1,611	—	—
1997 11-Mo. Average	1,551	1,550	93	19	31	1,594	1,593	—	—

^a Stocks are totals as of end of period.

^b A negative number indicates a decrease in stocks and a positive number indicates an increase.

^c In January 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

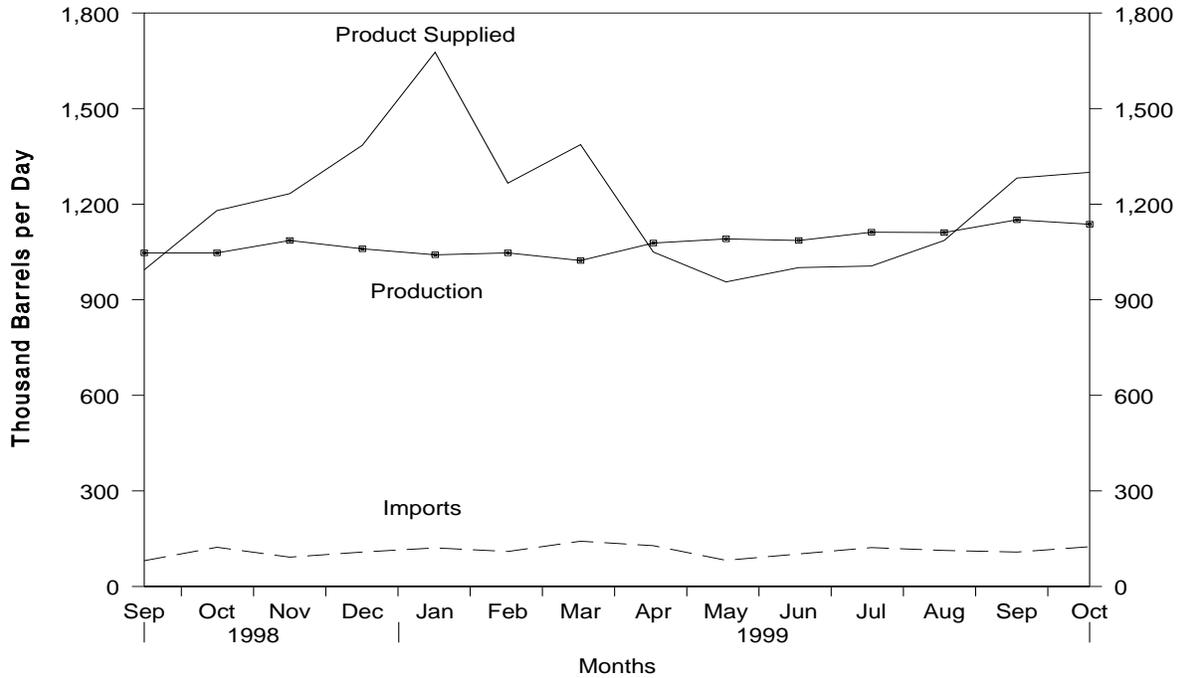
— = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

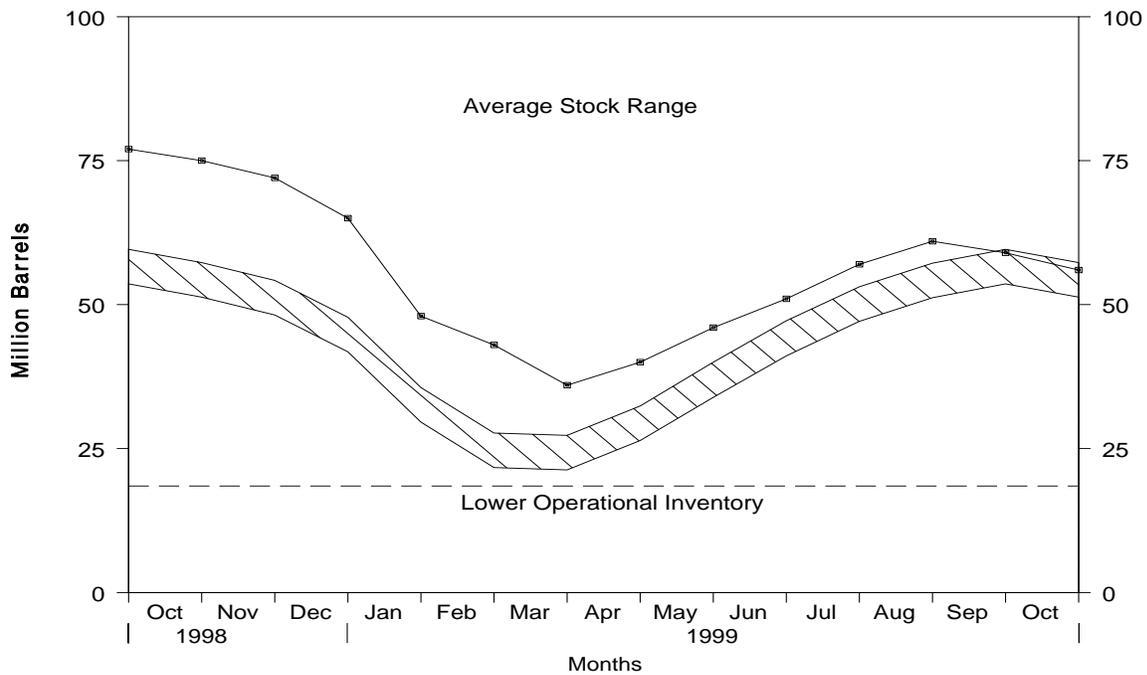
Source: See Summary Statistics Table and Figure Sources.

Figure S13. Propane/Propylene Supply and Disposition, September 1998 - Present



Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S8. See Summary Statistics Table and Figure Sources.

Figure S14. Propane/Propylene Ending Stocks, September 1998 - Present



Note: The Lower Operational Inventory for propane stocks is 18.5 million barrels.
 Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S8. See Summary Statistics Table and Figure Sources.

Table S8. Propane/Propylene Supply and Disposition, 1984 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply		Disposition				Ending Stocks ^b (Million Barrels)
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	
1984 Average	806	67	^c 7	4	30	833	58
1985 Average	816	67	-50	3	48	883	39
1986 Average	817	110	64	4	28	831	63
1987 Average	828	88	-41	8	24	924	48
1988 Average	863	106	7	8	31	923	50
1989 Average	862	111	-52	11	24	990	32
1990 Average	878	115	48	(s)	28	917	49
1991 Average	915	91	-3	(s)	28	982	48
1992 Average	956	85	-24	(s)	33	1,032	39
1993 Average	963	103	34	(s)	26	1,006	51
1994 Average	969	124	-13	0	24	1,082	46
1995 Average	1,021	102	-10	0	38	1,096	43
1996 Average	1,044	119	(s)	0	28	1,136	43
1997 January	1,039	149	-340	0	28	1,501	32
February	1,044	126	-276	0	42	1,404	25
March	1,059	114	92	0	40	1,041	28
April	1,112	109	150	0	32	1,039	32
May	1,114	92	252	0	23	930	40
June	1,110	88	250	0	31	916	47
July	1,083	87	231	0	24	916	55
August	1,095	108	172	0	24	1,007	60
September	1,110	89	30	0	16	1,152	61
October	1,110	122	17	0	29	1,185	61
November	1,099	114	-223	0	48	1,388	55
December	1,127	159	-342	0	53	1,576	44
Average	1,092	113	3	0	32	1,170	—
1998 January	1,060	137	-310	0	29	1,478	34
February	1,052	204	-58	0	28	1,286	33
March	1,086	132	-98	0	28	1,288	30
April	1,112	183	252	0	22	1,021	37
May	1,093	136	428	0	22	779	51
June	1,059	179	336	0	13	889	61
July	1,004	124	215	0	17	896	67
August	1,056	157	186	0	15	1,012	73
September	1,047	81	118	0	15	994	77
October	1,047	123	-45	0	35	1,180	75
November	1,086	92	-96	0	41	1,233	72
December	1,060	108	-250	0	32	1,385	65
Average	1,064	137	56	0	25	1,120	—
1999 January	1,041	121	-565	0	50	1,677	48
February	1,047	110	-150	0	41	1,266	43
March	1,023	142	-241	0	19	1,387	36
April	1,078	128	143	0	13	1,050	40
May	1,091	82	197	0	20	956	46
June	1,086	102	164	0	23	1,001	51
July	1,112	122	201	0	27	1,006	57
August	1,111	113	107	0	32	1,086	61
September	1,151	108	-43	0	20	1,282	59
October	1,137	125	-103	0	65	1,300	56
10-Mo. Average	1,088	115	-29	0	31	1,201	—
1998 10-Mo. Average	1,062	145	103	0	22	1,081	—
1997 10-Mo. Average	1,088	108	60	0	29	1,107	—

^a A negative number indicates a decrease in stocks and a positive number indicates an increase.

^b Stocks are totals as of end of period.

^c In January 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

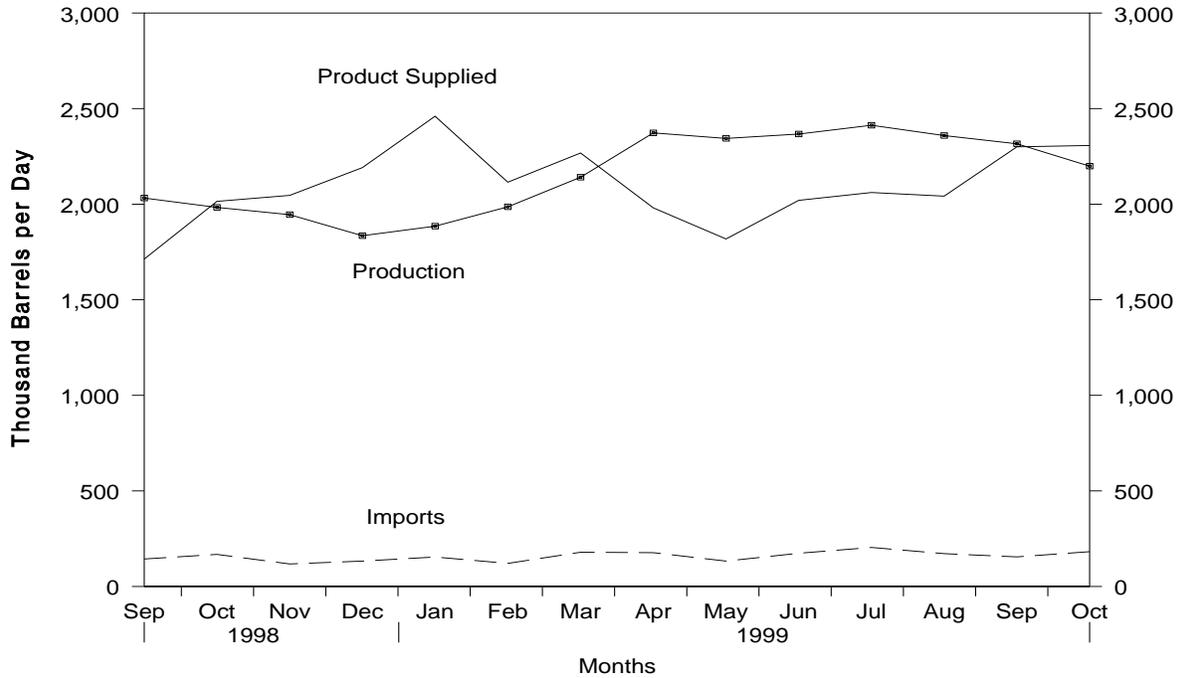
(s) = Less than 500 barrels per day.

— = Not Applicable.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

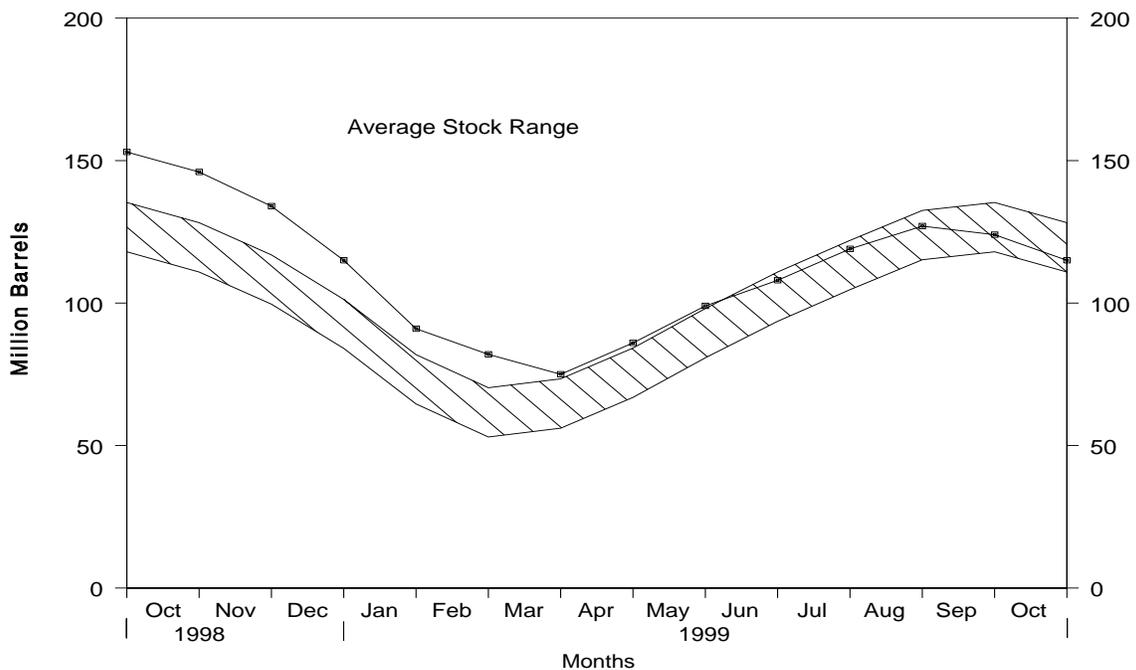
Source: See Summary Statistics Table and Figure Sources.

Figure S15. Liquefied Petroleum Gases Supply and Disposition, September 1998 - Present



Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S9. See Summary Statistics Table and Figure Sources.

Figure S16. Liquefied Petroleum Gases Ending Stocks, September 1998 - Present



Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S9. See Summary Statistics Table and Figure Sources.

Table S9. Liquefied Petroleum Gases Supply and Disposition, 1984 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply		Disposition				Ending Stocks ^b (Million Barrels)
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	
1984 Average	1,697	195	^c -19	291	48	1,572	101
1985 Average	1,704	187	-75	304	62	1,599	74
1986 Average	1,695	242	80	302	42	1,512	103
1987 Average	1,748	190	-15	304	38	1,612	97
1988 Average	1,817	209	1	321	49	1,656	97
1989 Average	1,791	181	-47	315	35	1,668	80
1990 Average	1,749	188	48	293	40	1,556	98
1991 Average	1,871	147	-15	304	41	1,689	92
1992 Average	1,972	131	-10	309	49	1,755	89
1993 Average	1,993	160	49	327	43	1,734	106
1994 Average	2,012	183	-19	296	38	1,880	99
1995 Average	2,082	146	-17	289	58	1,899	93
1996 Average	2,156	166	-19	278	51	2,012	86
1997 January	2,009	193	-543	344	36	2,365	69
February	2,072	178	-450	321	78	2,301	57
March	2,210	163	214	244	62	1,854	63
April	2,355	169	349	211	41	1,923	74
May	2,364	161	481	200	40	1,804	89
June	2,369	160	534	203	43	1,748	105
July	2,331	151	433	195	56	1,798	118
August	2,348	175	408	190	37	1,888	131
September	2,196	150	54	247	29	2,017	133
October	2,074	168	-100	302	42	1,998	129
November	1,926	155	-535	345	66	2,206	113
December	2,020	205	-770	354	74	2,567	89
Average	2,190	169	9	263	50	2,038	—
1998 January	2,000	200	-534	340	53	2,340	73
February	2,088	277	-122	303	52	2,132	70
March	2,262	192	-14	229	41	2,199	69
April	2,414	234	527	193	39	1,889	85
May	2,358	219	726	193	31	1,627	107
June	2,245	249	546	193	28	1,727	124
July	2,106	199	328	187	34	1,756	134
August	2,220	196	407	190	25	1,793	147
September	2,032	144	212	222	28	1,713	153
October	1,983	168	-225	313	49	2,015	146
November	1,945	118	-402	358	61	2,046	134
December	1,835	133	-608	317	67	2,191	115
Average	2,124	194	70	253	42	1,952	—
1999 January	1,885	154	-812	315	75	2,460	91
February	1,986	121	-332	258	64	2,115	82
March	2,141	179	-208	228	32	2,268	75
April	2,373	177	348	200	21	1,981	86
May	2,344	133	431	194	33	1,818	99
June	2,367	174	307	177	37	2,020	108
July	2,413	204	339	177	39	2,061	119
August	2,359	172	264	179	47	2,042	127
September	2,316	155	-109	222	58	2,300	124
October	2,199	182	-283	276	81	2,307	115
10-Mo. Average	2,240	165	-4	223	49	2,138	—
1998 10-Mo. Average	2,171	207	186	236	38	1,918	—
1997 10-Mo. Average	2,234	167	142	245	46	1,967	—

^a A negative number indicates a decrease in stocks and a positive number indicates an increase.

^b Stocks are totals as of end of period.

^c In January 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

— = Not Applicable.

Notes: • Liquefied petroleum gases includes ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene. • Beginning in January 1984, unfractionated stream, is reported by individual product. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Table S10. Other Petroleum Products Supply and Disposition, 1984 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply		Disposition				Ending Stocks ^b (Million Barrels)
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Products Supplied	
1984 Average	2,500	503	^c -32	791	236	2,007	198
1985 Average	2,532	550	22	886	227	1,947	206
1986 Average	2,704	504	-15	888	291	2,045	201
1987 Average	2,737	543	-1	829	264	2,187	200
1988 Average	2,773	645	22	799	294	2,303	208
1989 Average	2,771	627	12	797	305	2,285	213
1990 Average	2,842	705	-32	887	289	2,402	201
1991 Average	2,826	675	18	936	277	2,269	208
1992 Average	2,928	707	-3	906	263	2,470	^c 207
1993 Average	3,035	770	-2	1,081	300	2,426	206
1994 Average	2,973	761	^c 24	861	329	2,518	215
1995 Average	3,031	708	^c -23	958	348	2,457	206
1996 Average	3,108	879	^c -11	1,014	376	2,608	202
1997 January	2,945	1,154	354	831	403	2,511	213
February	2,953	1,010	239	944	332	2,448	220
March	3,078	955	514	697	391	2,431	236
April	3,136	1,054	-122	1,203	395	2,715	232
May	3,329	1,156	127	1,089	446	2,823	236
June	3,355	936	-468	1,345	417	2,997	222
July	3,402	903	-214	1,069	380	3,069	215
August	3,426	886	-83	994	460	2,940	213
September	3,390	836	101	841	450	2,834	216
October	3,227	957	-87	915	381	2,976	213
November	3,078	754	-7	919	369	2,551	213
December	3,113	744	3	981	396	2,476	213
Average	3,204	945	30	985	402	2,733	—
1998 January	3,108	782	415	702	420	2,352	226
February	3,100	794	384	659	406	2,446	236
March	3,081	825	269	770	387	2,481	245
April	3,153	975	-145	1,209	378	2,686	240
May	3,285	1,014	-75	1,095	402	2,876	238
June	3,365	969	-147	1,155	412	2,914	234
July	3,492	847	-271	1,182	431	2,998	225
August	3,575	697	-5	953	300	3,023	225
September	3,344	962	-33	1,012	370	2,957	224
October	3,240	1,012	-190	1,259	357	2,825	218
November	3,234	978	181	1,000	382	2,649	224
December	3,043	808	-138	1,012	312	2,665	219
Average	3,253	888	18	1,002	380	2,741	—
1999 January	3,225	842	329	827	307	2,604	229
February	3,323	841	327	850	272	2,715	239
March	3,288	738	393	667	302	2,664	251
April	3,148	1,008	-88	1,081	352	2,811	248
May	3,351	814	24	1,380	321	2,440	249
June	3,269	961	-534	1,319	311	3,134	233
July	3,326	839	-250	1,255	325	2,835	225
August	3,451	936	-187	1,060	359	3,156	219
September	3,373	971	-146	1,089	345	3,056	215
October	3,137	917	-240	1,100	327	2,866	207
10-Mo. Average	3,289	886	-39	1,064	322	2,828	—
1998 10-Mo. Average	3,276	888	18	1,002	386	2,758	—
1997 10-Mo. Average	3,226	985	36	992	406	2,777	—

^a A negative number indicates a decrease in stocks and a positive number indicates an increase.

^b Stocks are totals as of end of period.

^c In January 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. Bulk terminal and pipeline stocks of oxygenates were added beginning in January 1993. See Summary Statistics Explanatory Note 4.

— = Not Applicable.

Notes: • Other petroleum products includes pentanes plus, other hydrocarbons and oxygenates, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, liquefied petroleum gases, and crude oil product supplied.

• Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Summary Statistics Tables and Figures Sources

Information about petroleum supply and disposition at the National level are presented in the Summary Statistics tables. Industry terminology and product definitions are listed alphabetically in the Glossary.

The data presented in these tables are from several sources and represent different levels of timeliness and data finality.

- U.S. Department of Energy, Energy Information Administration (EIA), *Petroleum Supply Annual* (1984 through 1998).
- EIA, *Petroleum Supply Monthly* (January 1994 through October 1999).
- EIA, Weekly Petroleum Supply Reporting System (except domestic crude oil production) (November 1999). A more detailed explanation is provided in Summary Statistics Explanatory Note 1.
- Domestic crude oil production estimate is based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. (January 1994 through November 1999). Refer to Summary Statistics Explanatory Note 2 for a more detailed explanation.

Summary Statistics Explanatory Notes

The following explanatory notes are provided to assist in understanding and interpreting the data presented in the Summary Statistics section of this publication.

Note 1. Preliminary Monthly Statistics Derivation

Data collected from the Weekly Petroleum Supply Reporting System (WPSRS) are used to develop estimates of the most current monthly quantities. The forms that comprise the WPSRS are:

<u>Form Number</u>	<u>Name</u>
EIA-800	“Weekly Refinery Report”
EIA-801	“Weekly Bulk Terminal Report”
EIA-802	“Weekly Product Pipeline Report”
EIA-803	“Weekly Crude Oil Stocks Report”
EIA-804	“Weekly Imports Report”

A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum products stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys.

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during a 12-month period. Companies are chosen for the sample beginning with the largest companies with additional companies added until the total sample coverage represents a minimum of 90 percent of each item by geographic region being measured. All monthly-from-weekly estimates are shown in italics.

In calculating monthly estimates based upon weekly submissions, an interpolation process is used to make the weekly figures comparable to the monthly. The interpolation process is designed to resolve the timing differences between the weekly and the monthly systems — the time-of-day of reporting periods and the day-of-month of reporting periods. The end of the weekly reporting period (exactly 1 week long) is 7 a.m. Friday. The end of the monthly reporting period (one calendar month long) is 12 midnight on the last day of the month. To resolve the difference in the time-of-day of the weekly and monthly reporting periods, it is assumed that there is no activity during the period 12 midnight Thursday through

7 a.m. Friday. Thus, for the purposes of interpolation, the weekly system reporting period is assumed to end at 12 midnight on Thursday. The resolution of the day-of-month differences depends on whether the series is a cumulative one (such as production and imports) or a value at a fixed point-in-time (i.e., stocks).

For cumulative items (all items except stocks) the following method is used to calculate a monthly-from-weekly figure for a given month. First, a weight is assigned to each week in the month based on the number of days in that week that are in the month. (All intermediate weeks in a month will have a weight of seven; the beginning and ending weeks in the month may have a weight of less than seven, according to the number of days of the week that are in the month.) The weight for each week is then multiplied by the average daily volume for that week. To arrive at the monthly-from-weekly figure, a sum is taken of these weighted weekly volumes. The daily average for the monthly-from-weekly figure is calculated by dividing the total monthly-from-weekly figure by the number of days in the month.

Stock figures are not cumulative but represent inventories as of the last day of the reporting period. When the reporting week does not coincide with the end of a reporting month, an interpolation is necessary to derive a monthly-from-weekly figure for end-of-month stocks.

To derive the monthly-from-weekly stock figures, the two weekly reports that bracket the end of the month are used. Average daily stock change and the number of interpolated days are determined. The average daily stock change is defined as one-seventh of the difference between the stock level at the end of the last full week of the month and the stock level at the end of the week containing the last day of the month. The number of interpolation days is defined as the number of days between the end of the preceding weekly reporting period (midnight Thursday) and the end of the monthly reporting period. The end-of-month stock levels are then estimated as the sum of (a) the stock level reported the last full week of the month, plus (b) the number of interpolation days multiplied by the average daily stock change for the week.

The monthly-from-weekly exports data are derived from the most recent data published in the *Weekly Petroleum Status Report*. Beginning with statistics for the first week ending in October 1991, weekly estimates of exports are forecast using an autoregressive integrated moving-average (ARIMA) procedure. The ARIMA procedure models a value as a linear combination of its own past values and present and past values of other related time series. The most recent 5 years of

past data are used to obtain the forecast. In addition, for the major products and crude oil, 5 years of related price data are used. The price data include some U.S. and some foreign series.

Note 2. Domestic Crude Oil Production

The Energy Information Administration (EIA) collects monthly crude oil production data on an ongoing basis. Data on crude oil production for States are reported to the EIA by State government agencies. Data on crude oil production for Federal offshore areas are reported to the EIA by the Minerals Management Service of the U.S. Department of the Interior and the Conservation Committee of California Oil Producers.

Currently, all except four crude oil producing States (Michigan, New York, Ohio, and Pennsylvania) report production on a monthly basis. These four States report crude oil production on an annual basis. Estimates of monthly crude oil production for these four States are made by the EIA using data reported on Form EIA-182, "Domestic Crude Oil First Purchase Report." After the end of each calendar year, the monthly crude oil production estimates are updated using annual reports from various State agencies, the Minerals Management Service, and the Conservation Committee of California Oil Producers. The final estimate is published in the *Petroleum Supply Annual*. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares an original, forecast estimate on the first day of the production month (indicated with a "PE"). Approximately 45 days later, this original estimate of monthly crude oil production is replaced by State-level interim estimates (indicated with an "RE"). The State-level interim estimates are based on: (a) data reported by the States (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, "Domestic Crude Oil First Purchase Report;" (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Note 3. Figures

Figures associated with the Summary Statistics tables are provided which depict the balance between supply, disposition, and ending stocks for various commodities.

The national inventory (stocks) graphs (Figures S4, S6, S8, S10, S12, S14, and S16) for crude oil, finished motor gasoline, distillate fuel oil, residual fuel oil, jet fuel,

propane/propylene, and liquefied petroleum gases, in this publication include features to assist in comparing current inventory levels with past inventory levels and observed minimum operating levels. These features are described below.

The graphs displaying inventory levels provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every 6 months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a 7-year period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the U.S. Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data.

After seasonal factors are derived, data from the most recent 3-year period (January through December or July through June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36 months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the average range is twice the standard deviation.

The lines labeled "lower operational inventory" on the stock graphs are the lower end of the demonstrated operational inventory range updated for known and definable changes in the petroleum delivery system.

Note 4. Frames Maintenance

In January 1981 and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been as listed below.

- Crude Oil: 1982- 645 (Total) and 351 (Other Primary).

- Crude Oil and Petroleum Products: 1980- 1,425; and 1982- 1,461.
- Motor Gasoline: 1980- 263 (Total) and 214 (Finished); 1982- 244 (Total) and 202 (Finished).
- Distillate Fuel Oil: 1980- 205; and 1982- 186.
- Residual Fuel Oil: 1980- 91; and 1982- 69.
- Jet Fuel: 1980- 42 (Total) and 36 (Kerosene-type); and 1982- 39 (Total) and 32 (Kerosene-type).
- Propane/Propylene: 1980- 69; and 1982- 57.
- Liquefied Petroleum Gases: 1980- 128; and 1982-102.
- Other Petroleum Products: 1980- 207; and 1982-219.

Stock change calculations beginning in 1981 and 1983 were made using new basis stock levels.

Stocks of Alaskan crude oil in-transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year crude oil stocks would have been 488 million barrels (Total) and 380 million barrels (Other Primary).

Beginning with January 1984, natural gas liquids supply and disposition data were collected on a component basis rather than a product basis. This change affected stocks reported

and stock change calculations. Under the new basis, end-of-year 1983 stocks would have been:

- Propane/Propylene: 1983- 55.
- Liquefied Petroleum Gases: 1983- 108.
- Other Petroleum Products: 1983- 210.

In response to changes in the Clean Air Act Amendments of 1990 requiring that all gasoline sold in carbon monoxide nonattainment areas have an oxygen content of 2.7 percent (by weight) during winter months, the Energy Information Administration (EIA) conducted a frame identifier survey in 1991 of companies that produce, blend, store, or import oxygenates. The purpose of this survey was to (1) identify all U.S. producers, blenders, storers, and importers of oxygenates; and (2) collect supply and blending data for 1990 and end of 1990 inventory data on those oxygenates blended into motor gasoline. A summary of the results from the identification survey were published in the *Weekly Petroleum Status Report* dated February 12, 1992 and in the February 1992 issue of the *Petroleum Supply Monthly*.

In order to continue to provide relevant information about U.S. and regional gasoline supply, the EIA conducted a second frame identifier survey of these companies during 1992. As a result, a number of respondents were added to the monthly surveys effective in January 1993: 19 blenders, 25 stock holders, and 8 importers. This change did not affect stocks reported and therefore did not cause a new basis stock level to be calculated.

Table 1. U.S. Petroleum Balance, October 1999

Commodity	Current Month		Year to Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil				
Field Production				
(1) Alaska	E 33,109	E 1,068	E 319,688	E 1,052
(2) Lower 48 States	E 149,120	E 4,810	E 1,483,337	E 4,879
(3) Total U.S.	E 182,229	E 5,878	E 1,803,025	E 5,931
Net Imports				
(4) Imports (Gross Excluding Strategic Petroleum Reserve (SPR))	261,069	8,422	2,637,002	8,674
(5) SPR Imports	539	17	1,059	3
(6) Exports	1,749	56	36,396	120
(7) Imports (Net Including SPR)	259,859	8,383	2,601,665	8,558
Other Sources				
(8) SPR Stock Change (Withdrawal (+), Addition (-))	3,202	103	-865	-3
(9) Other Stock Change (Withdrawal (+), Addition (-))	-896	-29	19,600	64
(10) Product Supplied and Losses	0	0	-10	(s)
(11) Unaccounted for ^a	7,889	254	93,129	306
(12) Total Other Sources	10,195	329	111,854	368
(13) Crude Input to Refineries	452,282	14,590	4,516,544	14,857
(13) = (3) + (7) + (12)				
Natural Gas Liquids (NGL)				
(14) Field Production ^b	68,943	2,224	587,218	1,932
(15) Net Imports ^c	1,962	63	11,117	37
(16) Stock Change (Withdrawal (+), Addition (-)) ^c	650	21	344	1
(17) Total NGL Supply	71,554	2,308	598,679	1,969
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Change (Withdrawal (+), Addition (-))	892	29	1,097	4
(19) Net Imports	16,587	535	158,125	520
(20) Other Liquids New Supply (Field Production)	3,705	120	80,235	264
(21) Refinery Processing Gain ^a	30,043	969	268,109	882
(22) Crude Oil Product Supplied	0	0	0	0
(23) Total Other Liquids	51,227	1,652	507,566	1,670
(23) = (18) through (22)				
(24) Total Production of Products	575,063	18,550	5,622,789	18,496
(24) = (13) + (17) + (23)				
Net Imports of Refined Products				
(25) Imports (Gross)	41,855	1,350	427,774	1,407
(26) Exports	26,257	847	227,706	749
(27) Imports (Net)	15,598	503	200,068	658
(28) Total New Supply of Products	590,661	19,054	5,822,857	19,154
(28) = (24) + (27)				
(29) Refined Products Stock Change (Withdrawal (+), Addition (-))	24,999	806	47,499	156
(30) Total Petroleum Products Supplied for Domestic Use	615,660	19,860	5,870,356	19,310
(30) = (28) + (29)				
(31) Finished Motor Gasoline	264,361	8,528	2,536,220	8,343
(32) Distillate Fuel Oil	116,859	3,770	1,066,041	3,507
(33) Residual Fuel Oil	21,887	706	253,182	833
(34) Jet Fuel	52,179	1,683	505,490	1,663
(35) Liquefied Petroleum Gases	71,523	2,307	649,858	2,138
(36) Other ^d	88,851	2,866	859,566	2,828
(37) Crude Oil	0	0	0	0
(38) Total Products Supplied	615,660	19,860	5,870,356	19,310
(38) = (31) through (37)				
Ending Stocks, All Oils				
(39) Crude Oil (Excluding SPR)	303,438	—	303,438	—
(40) Strategic Petroleum Reserve ^e	572,270	—	572,270	—
(41) Finished Motor Gasoline	158,827	—	158,827	—
(42) Distillate Fuel Oil	137,615	—	137,615	—
(43) Residual Fuel Oil	40,364	—	40,364	—
(44) Jet Fuel	44,256	—	44,256	—
(45) Liquefied Petroleum Gases	115,146	—	115,146	—
(46) Other ^d	207,477	—	207,477	—
(47) Total Stocks	1,579,393	—	1,579,393	—
(47) = (39) through (46)				

^a Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Refinery processing gain represents the volumetric amount by which total output is greater than input for a given period of time. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

^b Includes field production of fuel ethanol and an adjustment for motor gasoline blending components.

^c Includes products in the pentanes plus category only.

^d Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, and liquefied petroleum gases.

^e Crude oil stocks in the Strategic Petroleum Reserve include non-U.S. stocks held under foreign or commercial storage agreements.

E = Estimated. — = Not Applicable.

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

Sources: • Energy Information Administration (EIA), Monthly Petroleum Supply Reporting System. • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

**Table 2. U.S. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products,
October 1999**
(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c	
Crude Oil	^E 182,229	—	261,608	7,889	-2,306	0	452,282	1,749	0	875,708
Natural Gas Liquids and LRGs	60,069	17,784	7,605	—	-9,425	—	12,904	2,508	79,471	123,249
Pentanes Plus	9,687	—	1,963	—	-650	—	4,351	1	7,948	8,103
Liquefied Petroleum Gases	50,382	17,784	5,642	—	-8,775	—	8,553	2,507	71,523	115,146
Ethane/Ethylene	22,590	901	862	—	-78	—	0	0	24,431	18,700
Propane/Propylene	16,883	18,363	3,884	—	-3,180	—	0	2,008	40,302	56,248
Normal Butane/Butylene	5,067	-1,673	453	—	-5,665	—	5,231	498	3,783	32,868
Isobutane/Isobutylene	5,842	193	443	—	148	—	3,322	0	3,008	7,330
Other Liquids	3,705	—	17,842	—	-892	—	29,760	1,255	-8,576	148,009
Other Hydrocarbons/Oxygenates	10,590	—	1,517	—	-93	—	11,422	778	0	14,705
Unfinished Oils	—	—	9,343	—	1,421	—	16,561	0	-8,639	90,697
Motor Gasoline Blend. Comp.	-6,886	—	6,982	—	-2,224	—	1,844	476	0	42,426
Aviation Gasoline Blend. Comp.	—	—	0	—	4	—	-67	0	63	181
Finished Petroleum Products	8,874	507,205	36,213	—	-16,224	—	23,750	544,766	432,427	
Finished Motor Gasoline	8,874	247,506	11,613	—	-395	—	4,027	264,361	158,827	
Reformulated	—	80,013	6,230	—	420	—	9	85,814	39,895	
Oxygenated	19,880	4,033	0	—	15	—	20	23,878	1,334	
Other	-11,006	163,460	5,383	—	-830	—	3,998	154,669	117,598	
Finished Aviation Gasoline	—	668	6	—	117	—	0	557	1,475	
Jet Fuel	—	46,540	3,017	—	-3,480	—	858	52,179	44,256	
Naphtha-Type	—	28	0	—	0	—	59	-31	36	
Kerosene-Type	—	46,512	3,017	—	-3,480	—	800	52,209	44,220	
Kerosene	—	2,306	41	—	694	—	57	1,596	6,485	
Distillate Fuel Oil	—	108,832	6,423	—	-7,548	—	5,944	116,859	137,615	
0.05 percent sulfur and under	—	75,163	3,369	—	-4,119	—	816	81,835	68,635	
Greater than 0.05 percent sulfur	—	33,669	3,054	—	-3,429	—	5,128	35,024	68,980	
Residual Fuel Oil	—	20,471	6,540	—	1,097	—	4,027	21,887	40,364	
Naphtha For Petro. Feed. Use	—	5,950	3,038	—	-671	—	0	9,659	1,865	
Other Oils For Petro. Feed. Use	—	7,071	4,078	—	430	—	0	10,719	2,378	
Special Naphthas	—	2,651	37	—	34	—	366	2,288	2,203	
Lubricants	—	5,662	363	—	-953	—	1,236	5,742	11,884	
Waxes	—	416	83	—	9	—	109	381	1,133	
Petroleum Coke	—	22,166	6	—	286	—	6,973	14,913	7,608	
Asphalt and Road Oil	—	15,302	963	—	-5,750	—	148	21,867	14,594	
Still Gas	—	20,000	0	—	0	—	0	20,000	0	
Miscellaneous Products	—	1,664	5	—	-94	—	5	1,758	1,740	
Total	254,876	524,989	323,268	7,889	-28,847	0	494,946	29,263	615,660	1,579,393

^a Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50,000 barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

^b A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^c Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report." Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 3. U.S. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c	
Crude Oil	^E 1,803,025	—	2,638,061	93,129	-18,735	10	4,516,544	36,396	0	875,708
Natural Gas Liquids and LRGs	550,515	221,835	62,221	—	-1,589	—	108,000	15,679	712,481	123,249
Pentanes Plus	91,501	—	11,970	—	-344	—	40,339	853	62,623	8,103
Liquefied Petroleum Gases	459,014	221,835	50,251	—	-1,245	—	67,661	14,826	649,858	115,146
Ethane/Ethylene	198,498	8,311	7,654	—	-2,566	—	0	0	217,029	18,700
Propane/Propylene	157,632	173,101	35,098	—	-8,790	—	0	9,437	365,184	56,248
Normal Butane/Butylene	45,951	35,240	4,258	—	10,115	—	32,040	5,390	37,904	32,868
Isobutane/Isobutylene	56,933	5,183	3,241	—	-4	—	35,621	0	29,740	7,330
Other Liquids	80,235	—	169,572	—	-1,097	—	283,070	11,447	-43,613	148,009
Other Hydrocarbons/Oxygenates	100,829	—	20,314	—	531	—	112,097	8,515	0	14,705
Unfinished Oils	—	—	91,783	—	-216	—	136,601	0	-44,602	90,697
Motor Gasoline Blend. Comp.	-20,594	—	57,475	—	-1,332	—	35,281	2,932	0	42,426
Aviation Gasoline Blend. Comp.	—	—	0	—	-80	—	-909	0	989	181
Finished Petroleum Products	36,703	4,953,888	377,523	—	-46,254	—	—	212,880	5,201,488	432,427
Finished Motor Gasoline	36,703	2,404,360	113,018	—	-13,134	—	—	30,996	2,536,220	158,827
Reformulated	—	774,223	57,480	—	-4,369	—	—	172	835,900	39,895
Oxygenated	161,090	22,604	0	—	432	—	—	371	182,891	1,334
Other	-124,387	1,607,533	55,538	—	-9,197	—	—	30,453	1,517,428	117,598
Finished Aviation Gasoline	—	6,278	59	—	-351	—	—	0	6,688	1,475
Jet Fuel	—	475,508	37,672	—	-456	—	—	8,146	505,490	44,256
Naphtha-Type	—	159	4	—	2	—	—	800	-639	36
Kerosene-Type	—	475,349	37,668	—	-458	—	—	7,346	506,129	44,220
Kerosene	—	18,567	358	—	-458	—	—	191	19,192	6,485
Distillate Fuel Oil	—	1,029,594	65,227	—	-18,578	—	—	47,358	1,066,041	137,615
0.05 percent sulfur and under	—	696,852	34,093	—	-8,333	—	—	11,938	727,340	68,635
Greater than 0.05 percent sulfur	—	332,742	31,134	—	-10,245	—	—	35,420	338,701	68,980
Residual Fuel Oil	—	216,320	73,762	—	-3,789	—	—	40,689	253,182	40,364
Naphtha For Petro. Feed. Use	—	60,534	21,662	—	-228	—	—	0	82,424	1,865
Other Oils For Petro. Feed. Use	—	66,012	49,161	—	311	—	—	0	114,862	2,378
Special Naphthas	—	22,940	1,448	—	-8	—	—	4,172	20,224	2,203
Lubricants	—	55,881	3,220	—	-1,269	—	—	8,883	51,487	11,884
Waxes	—	5,564	614	—	140	—	—	1,081	4,957	1,133
Petroleum Coke	—	215,677	262	—	-1,592	—	—	69,868	147,663	7,608
Asphalt and Road Oil	—	159,006	10,993	—	-6,757	—	—	1,433	175,323	14,594
Still Gas	—	201,340	0	—	0	—	—	0	201,340	0
Miscellaneous Products	—	16,307	67	—	-85	—	—	63	16,396	1,740
Total	2,470,478	5,175,723	3,247,377	93,129	-67,675	10	4,907,614	276,403	5,870,356	1,579,393

^a Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50,000 barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

^b A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^c Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report." Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

**Table 4. U.S. Daily Average Supply and Disposition of Crude Oil and Petroleum Products,
October 1999**
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c
Crude Oil	E 5,878	—	8,439	254	-74	0	14,590	56	0
Natural Gas Liquids and LRGs	1,938	574	245	—	-304	—	416	81	2,564
Pentanes Plus	312	—	63	—	-21	—	140	(s)	256
Liquefied Petroleum Gases	1,625	574	182	—	-283	—	276	81	2,307
Ethane/Ethylene	729	29	28	—	-3	—	0	0	788
Propane/Propylene	545	592	125	—	-103	—	0	65	1,300
Normal Butane/Butylene	163	-54	15	—	-183	—	169	16	122
Isobutane/Isobutylene	188	6	14	—	5	—	107	0	97
Other Liquids	120	—	576	—	-29	—	960	40	-277
Other Hydrocarbons/Oxygenates	342	—	49	—	-3	—	368	25	0
Unfinished Oils	—	—	301	—	46	—	534	0	-279
Motor Gasoline Blend. Comp.	-222	—	225	—	-72	—	59	15	0
Aviation Gasoline Blend. Comp.	—	—	0	—	(s)	—	-2	0	2
Finished Petroleum Products	286	16,361	1,168	—	-523	—	—	766	17,573
Finished Motor Gasoline	286	7,984	375	—	-13	—	—	130	8,528
Reformulated	—	2,581	201	—	14	—	—	(s)	2,768
Oxygenated	641	130	0	—	(s)	—	—	1	770
Other	-355	5,273	174	—	-27	—	—	129	4,989
Finished Aviation Gasoline	—	22	(s)	—	4	—	—	0	18
Jet Fuel	—	1,501	97	—	-112	—	—	28	1,683
Naphtha-Type	—	1	0	—	0	—	—	2	-1
Kerosene-Type	—	1,500	97	—	-112	—	—	26	1,684
Kerosene	—	74	1	—	22	—	—	2	51
Distillate Fuel Oil	—	3,511	207	—	-243	—	—	192	3,770
0.05 percent sulfur and under	—	2,425	109	—	-133	—	—	26	2,640
Greater than 0.05 percent sulfur ...	—	1,086	99	—	-111	—	—	165	1,130
Residual Fuel Oil	—	660	211	—	35	—	—	130	706
Naphtha For Petro. Feed. Use	—	192	98	—	-22	—	—	0	312
Other Oils For Petro. Feed. Use	—	228	132	—	14	—	—	0	346
Special Naphthas	—	86	1	—	1	—	—	12	74
Lubricants	—	183	12	—	-31	—	—	40	185
Waxes	—	13	3	—	(s)	—	—	4	12
Petroleum Coke	—	715	(s)	—	9	—	—	225	481
Asphalt and Road Oil	—	494	31	—	-185	—	—	5	705
Still Gas	—	645	0	—	0	—	—	0	645
Miscellaneous Products	—	54	(s)	—	-3	—	—	(s)	57
Total	8,222	16,935	10,428	254	-931	0	15,966	944	19,860

^a Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50,000 barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

^b A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^c Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 5. U.S. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c
Crude Oil	E 5,931	—	8,678	306	-62	(s)	14,857	120	0
Natural Gas Liquids and LRGs	1,811	730	205	—	-5	—	355	52	2,344
Pentanes Plus	301	—	39	—	-1	—	133	3	206
Liquefied Petroleum Gases	1,510	730	165	—	-4	—	223	49	2,138
Ethane/Ethylene	653	27	25	—	-8	—	0	0	714
Propane/Propylene	519	569	115	—	-29	—	0	31	1,201
Normal Butane/Butylene	151	116	14	—	33	—	105	18	125
Isobutane/Isobutylene	187	17	11	—	(s)	—	117	0	98
Other Liquids	264	—	558	—	-4	—	931	38	-143
Other Hydrocarbons/Oxygenates	332	—	67	—	2	—	369	28	0
Unfinished Oils	—	—	302	—	-1	—	449	0	-147
Motor Gasoline Blend. Comp.	-68	—	189	—	-4	—	116	10	0
Aviation Gasoline Blend. Comp.	—	—	0	—	(s)	—	-3	0	3
Finished Petroleum Products	121	16,296	1,242	—	-152	—	—	700	17,110
Finished Motor Gasoline	121	7,909	372	—	-43	—	—	102	8,343
Reformulated	—	2,547	189	—	-14	—	—	1	2,750
Oxygenated	530	74	0	—	1	—	—	1	602
Other	-409	5,288	183	—	-30	—	—	100	4,992
Finished Aviation Gasoline	—	21	(s)	—	-1	—	—	0	22
Jet Fuel	—	1,564	124	—	-2	—	—	27	1,663
Naphtha-Type	—	1	(s)	—	(s)	—	—	3	-2
Kerosene-Type	—	1,564	124	—	-2	—	—	24	1,665
Kerosene	—	61	1	—	-2	—	—	1	63
Distillate Fuel Oil	—	3,387	215	—	-61	—	—	156	3,507
0.05 percent sulfur and under	—	2,292	112	—	-27	—	—	39	2,393
Greater than 0.05 percent sulfur ...	—	1,095	102	—	-34	—	—	117	1,114
Residual Fuel Oil	—	712	243	—	-12	—	—	134	833
Naphtha For Petro. Feed. Use	—	199	71	—	-1	—	—	0	271
Other Oils For Petro. Feed. Use	—	217	162	—	1	—	—	0	378
Special Naphthas	—	75	5	—	(s)	—	—	14	67
Lubricants	—	184	11	—	-4	—	—	29	169
Waxes	—	18	2	—	(s)	—	—	4	16
Petroleum Coke	—	709	1	—	-5	—	—	230	486
Asphalt and Road Oil	—	523	36	—	-22	—	—	5	577
Still Gas	—	662	0	—	0	—	—	0	662
Miscellaneous Products	—	54	(s)	—	(s)	—	—	(s)	54
Total	8,127	17,025	10,682	306	-223	(s)	16,143	909	19,310

^a Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50,000 barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

^b A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^c Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 6. PAD District I—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1999
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 716	—	46,401	-3,558	-264	-3,878	0	47,172	(s)	0	13,542
Natural Gas Liquids and LRGs	877	601	410	—	3,510	-634	—	213	60	5,759	7,528
Pentanes Plus	101	—	0	—	0	-9	—	0	1	109	19
Liquefied Petroleum Gases	776	601	410	—	3,510	-625	—	213	59	5,650	7,509
Ethane/Ethylene	269	0	0	—	0	0	—	0	0	269	0
Propane/Propylene	339	1,542	302	—	3,464	-130	—	0	42	5,735	5,638
Normal Butane/Butylene	127	-722	35	—	37	-407	—	183	17	-316	1,626
Isobutane/Isobutylene	41	-219	73	—	9	-88	—	30	0	-38	245
Other Liquids	-109	—	7,442	—	304	602	—	8,872	59	-1,896	20,516
Other Hydrocarbons/Oxygenates ...	1,939	—	70	—	0	-456	—	2,407	58	0	1,984
Unfinished Oils	—	—	492	—	-286	458	—	1,707	0	-1,959	10,932
Motor Gasoline Blend. Comp.	-2,048	—	6,880	—	590	590	—	4,831	1	0	7,477
Aviation Gasoline Blend. Comp.	—	—	0	—	0	10	—	-73	0	63	123
Finished Petroleum Products	2,386	57,491	24,161	—	85,020	-3,011	—	—	679	171,390	152,951
Finished Motor Gasoline	2,386	30,574	11,536	—	52,033	3,354	—	—	8	93,167	50,285
Reformulated	—	19,657	6,230	—	11,880	2,271	—	—	7	35,489	18,083
Oxygenated	3,380	0	0	—	0	55	—	—	0	3,325	119
Other	-993	10,917	5,306	—	40,153	1,028	—	—	2	54,353	32,083
Finished Aviation Gasoline	—	1	0	—	120	-18	—	—	0	139	175
Jet Fuel	—	3,344	2,256	—	12,454	278	—	—	5	17,771	12,145
Naphtha-Type	—	0	0	—	0	0	—	—	4	-4	0
Kerosene-Type	—	3,344	2,256	—	12,454	278	—	—	1	17,775	12,145
Kerosene	—	507	41	—	95	156	—	—	6	481	3,080
Distillate Fuel Oil	—	12,447	5,179	—	17,600	-5,249	—	—	63	40,412	62,964
0.05 percent sulfur and under	—	6,672	2,696	—	11,347	-2,593	—	—	9	23,299	16,892
Greater than 0.05 percent sulfur	—	5,775	2,483	—	6,253	-2,656	—	—	53	17,114	46,072
Residual Fuel Oil	—	3,537	3,718	—	1,506	7	—	—	142	8,612	17,347
Petrochemical Feedstocks ^e	—	398	207	—	32	-33	—	—	0	670	391
Special Naphthas	—	58	0	—	97	0	—	—	26	129	91
Lubricants	—	439	328	—	829	-944	—	—	156	2,384	2,291
Waxes	—	-7	34	—	0	-31	—	—	24	34	299
Petroleum Coke	—	1,353	0	—	0	48	—	—	229	1,076	373
Asphalt and Road Oil	—	2,964	862	—	254	-585	—	—	17	4,648	3,436
Still Gas	—	1,805	0	—	0	0	—	—	0	1,805	0
Miscellaneous Products	—	71	0	—	0	6	—	—	3	62	74
Total	3,870	58,092	78,414	-3,558	88,570	-6,921	0	56,257	798	175,253	194,537

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 7. PAD District I—Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 7,622	—	450,179	19,487	-1,180	-918	0	475,041	1,985	0	13,542
Natural Gas Liquids and LRGs	7,728	13,849	5,663	—	30,700	359	—	1,282	560	55,739	7,528
Pentanes Plus	886	—	0	—	0	-15	—	0	15	886	19
Liquefied Petroleum Gases	6,842	13,849	5,663	—	30,700	374	—	1,282	545	54,853	7,509
Ethane/Ethylene	2,323	0	0	—	0	0	—	0	0	2,323	0
Propane/Propylene	3,031	15,440	5,342	—	30,100	569	—	0	329	53,015	5,638
Normal Butane/Butylene	1,104	-175	243	—	457	-245	—	577	216	1,081	1,626
Isobutane/Isobutylene	384	-1,416	78	—	143	50	—	705	0	-1,566	245
Other Liquids	10,474	—	73,942	—	2,695	-2,106	—	98,120	572	-9,475	20,516
Other Hydrocarbons/Oxygenates	18,197	—	5,068	—	0	-252	—	22,978	539	0	1,984
Unfinished Oils	—	—	16,302	—	-484	386	—	25,865	0	-10,433	10,932
Motor Gasoline Blend. Comp.	-7,722	—	52,572	—	3,179	-2,190	—	50,185	34	0	7,477
Aviation Gasoline Blend. Comp.	—	—	0	—	0	-50	—	-908	0	958	123
Finished Petroleum Products	10,461	581,432	248,791	—	838,103	-17,685	—	8,658	1,687,814	152,951	
Finished Motor Gasoline	10,461	304,702	102,358	—	489,369	-1,775	—	341	908,324	50,285	
Reformulated	—	191,817	54,199	—	101,813	-4,199	—	51	351,977	18,083	
Oxygenated	27,385	49	0	—	0	-206	—	2	27,638	119	
Other	-16,924	112,836	48,159	—	387,556	2,630	—	288	528,709	32,083	
Finished Aviation Gasoline	—	78	3	—	978	-85	—	0	1,144	175	
Jet Fuel	—	34,544	19,271	—	134,039	1,224	—	1,115	185,515	12,145	
Naphtha-Type	—	0	0	—	0	0	—	18	-18	0	
Kerosene-Type	—	34,544	19,271	—	134,039	1,224	—	1,097	185,533	12,145	
Kerosene	—	3,661	357	—	1,005	-823	—	27	5,819	3,080	
Distillate Fuel Oil	—	132,115	56,016	—	185,306	-13,403	—	1,792	385,048	62,964	
0.05 percent sulfur and under	—	64,573	29,770	—	116,351	-6,276	—	130	216,840	16,892	
Greater than 0.05 percent sulfur ...	—	67,542	26,246	—	68,955	-7,127	—	1,662	168,208	46,072	
Residual Fuel Oil	—	32,561	54,694	—	13,557	-2,715	—	1,672	101,855	17,347	
Petrochemical Feedstocks ^e	—	4,006	2,298	—	922	-23	—	0	7,249	391	
Special Naphthas	—	589	411	—	1,015	-8	—	187	1,836	91	
Lubricants	—	5,173	2,829	—	8,683	-199	—	1,280	15,604	2,291	
Waxes	—	86	287	—	11	238	—	236	-90	299	
Petroleum Coke	—	15,391	0	—	0	12	—	1,729	13,650	373	
Asphalt and Road Oil	—	28,988	10,253	—	3,218	-136	—	249	42,346	3,436	
Still Gas	—	18,863	0	—	0	0	—	0	18,863	0	
Miscellaneous Products	—	675	14	—	0	8	—	30	651	74	
Total	36,285	595,281	778,575	19,487	870,318	-20,350	0	574,443	11,775	1,734,078	194,537

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 8. PAD District I—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, October 1999
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 23	—	1,497	-115	-9	-125	0	1,522	(s)	0
Natural Gas Liquids and LRGs	28	19	13	—	113	-20	—	7	2	186
Pentanes Plus	3	—	0	—	0	(s)	—	0	(s)	4
Liquefied Petroleum Gases	25	19	13	—	113	-20	—	7	2	182
Ethane/Ethylene	9	0	0	—	0	0	—	0	0	9
Propane/Propylene	11	50	10	—	112	-4	—	0	1	185
Normal Butane/Butylene	4	-23	1	—	1	-13	—	6	1	-10
Isobutane/Isobutylene	1	-7	2	—	(s)	-3	—	1	0	-1
Other Liquids	-4	—	240	—	10	19	—	286	2	-61
Other Hydrocarbons/Oxygenates	63	—	2	—	0	-15	—	78	2	0
Unfinished Oils	—	—	16	—	-9	15	—	55	0	-63
Motor Gasoline Blend. Comp.	-66	—	222	—	19	19	—	156	(s)	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	(s)	—	-2	0	2
Finished Petroleum Products	77	1,855	779	—	2,743	-97	—	—	22	5,529
Finished Motor Gasoline	77	986	372	—	1,678	108	—	—	(s)	3,005
Reformulated	—	634	201	—	383	73	—	—	(s)	1,145
Oxygenated	109	0	0	—	0	2	—	—	0	107
Other	-32	352	171	—	1,295	33	—	—	(s)	1,753
Finished Aviation Gasoline	—	(s)	0	—	4	-1	—	—	0	4
Jet Fuel	—	108	73	—	402	9	—	—	(s)	573
Naphtha-Type	—	0	0	—	0	0	—	—	(s)	(s)
Kerosene-Type	—	108	73	—	402	9	—	—	(s)	573
Kerosene	—	16	1	—	3	5	—	—	(s)	16
Distillate Fuel Oil	—	402	167	—	568	-169	—	—	2	1,304
0.05 percent sulfur and under	—	215	87	—	366	-84	—	—	(s)	752
Greater than 0.05 percent sulfur ...	—	186	80	—	202	-86	—	—	2	552
Residual Fuel Oil	—	114	120	—	49	(s)	—	—	5	278
Petrochemical Feedstocks ^e	—	13	7	—	1	-1	—	—	0	22
Special Naphthas	—	2	0	—	3	0	—	—	1	4
Lubricants	—	14	11	—	27	-30	—	—	5	77
Waxes	—	(s)	1	—	0	-1	—	—	1	1
Petroleum Coke	—	44	0	—	0	2	—	—	7	35
Asphalt and Road Oil	—	96	28	—	8	-19	—	—	1	150
Still Gas	—	58	0	—	0	0	—	—	0	58
Miscellaneous Products	—	2	0	—	0	(s)	—	—	(s)	2
Total	125	1,874	2,529	-115	2,857	-223	0	1,815	26	5,653

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 9. PAD District I—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 25	—	1,481	64	-4	-3	0	1,563	7	0
Natural Gas Liquids and LRGs	25	46	19	—	101	1	—	4	2	183
Pentanes Plus	3	—	0	—	0	(s)	—	0	(s)	3
Liquefied Petroleum Gases	23	46	19	—	101	1	—	4	2	180
Ethane/Ethylene	8	0	0	—	0	0	—	0	0	8
Propane/Propylene	10	51	18	—	99	2	—	0	1	174
Normal Butane/Butylene	4	-1	1	—	2	-1	—	2	1	4
Isobutane/Isobutylene	1	-5	(s)	—	(s)	(s)	—	2	0	-5
Other Liquids	34	—	243	—	9	-7	—	323	2	-31
Other Hydrocarbons/Oxygenates	60	—	17	—	0	-1	—	76	2	0
Unfinished Oils	—	—	54	—	-2	1	—	85	0	-34
Motor Gasoline Blend. Comp.	-25	—	173	—	10	-7	—	165	(s)	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	(s)	—	-3	0	3
Finished Petroleum Products	34	1,913	818	—	2,757	-58	—	—	28	5,552
Finished Motor Gasoline	34	1,002	337	—	1,610	-6	—	—	1	2,988
Reformulated	—	631	178	—	335	-14	—	—	(s)	1,158
Oxygenated	90	(s)	0	—	0	-1	—	—	(s)	91
Other	-56	371	158	—	1,275	9	—	—	1	1,739
Finished Aviation Gasoline	—	(s)	(s)	—	3	(s)	—	—	0	4
Jet Fuel	—	114	63	—	441	4	—	—	4	610
Naphtha-Type	—	0	0	—	0	0	—	—	(s)	(s)
Kerosene-Type	—	114	63	—	441	4	—	—	4	610
Kerosene	—	12	1	—	3	-3	—	—	(s)	19
Distillate Fuel Oil	—	435	184	—	610	-44	—	—	6	1,267
0.05 percent sulfur and under	—	212	98	—	383	-21	—	—	(s)	713
Greater than 0.05 percent sulfur ...	—	222	86	—	227	-23	—	—	5	553
Residual Fuel Oil	—	107	180	—	45	-9	—	—	6	335
Petrochemical Feedstocks ^e	—	13	8	—	3	(s)	—	—	0	24
Special Naphthas	—	2	1	—	3	(s)	—	—	1	6
Lubricants	—	17	9	—	29	-1	—	—	4	51
Waxes	—	(s)	1	—	(s)	1	—	—	1	(s)
Petroleum Coke	—	51	0	—	0	(s)	—	—	6	45
Asphalt and Road Oil	—	95	34	—	11	(s)	—	—	1	139
Still Gas	—	62	0	—	0	0	—	—	0	62
Miscellaneous Products	—	2	(s)	—	0	(s)	—	—	(s)	2
Total	119	1,958	2,561	64	2,863	-67	0	1,890	39	5,704

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 10. PAD District II—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1999
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 13,594	—	25,489	-3,526	67,353	327	0	102,135	448	0	62,079
Natural Gas Liquids and LRGs	8,995	2,568	4,403	—	1,407	-1,757	—	3,252	63	15,815	41,809
Pentanes Plus	1,158	—	52	—	858	-515	—	1,071	0	1,512	1,834
Liquefied Petroleum Gases	7,837	2,568	4,351	—	549	-1,242	—	2,181	63	14,303	39,975
Ethane/Ethylene	3,294	0	455	—	-1,831	-203	—	0	0	2,121	3,541
Propane/Propylene	3,000	3,293	3,323	—	1,622	-160	—	0	37	11,361	26,188
Normal Butane/Butylene	1,104	-737	221	—	490	-822	—	1,466	26	408	8,509
Isobutane/Isobutylene	439	12	352	—	268	-57	—	715	0	413	1,737
Other Liquids	-3,203	—	1	—	2,630	193	—	-138	107	-734	27,747
Other Hydrocarbons/Oxygenates	1,257	—	0	—	0	-3	—	1,153	107	0	3,164
Unfinished Oils	—	—	1	—	125	1,223	—	-363	0	-734	13,769
Motor Gasoline Blend. Comp.	-4,460	—	0	—	2,505	-1,016	—	-939	(s)	0	10,789
Aviation Gasoline Blend. Comp.	—	—	0	—	0	-11	—	11	0	0	25
Finished Petroleum Products	5,613	108,755	356	—	27,650	-7,268	—	—	211	149,431	91,899
Finished Motor Gasoline	5,613	56,151	55	—	12,840	-3,092	—	—	21	77,729	40,352
Reformulated	—	8,913	0	—	2,083	-70	—	—	(s)	11,066	1,727
Oxygenated	11,530	1,476	0	—	-29	-201	—	—	0	13,178	615
Other	-5,918	45,762	55	—	10,786	-2,821	—	—	21	53,485	38,010
Finished Aviation Gasoline	—	163	1	—	159	57	—	—	0	266	404
Jet Fuel	—	6,692	0	—	4,835	97	—	—	(s)	11,430	7,840
Naphtha-Type	—	0	0	—	0	0	—	—	(s)	(s)	0
Kerosene-Type	—	6,692	0	—	4,835	97	—	—	0	11,430	7,840
Kerosene	—	334	0	—	83	-136	—	—	0	553	1,540
Distillate Fuel Oil	—	26,958	190	—	9,469	-1,592	—	—	5	38,204	28,526
0.05 percent sulfur and under	—	20,183	163	—	7,945	-431	—	—	(s)	28,722	20,903
Greater than 0.05 percent sulfur ...	—	6,775	27	—	1,524	-1,161	—	—	4	9,483	7,623
Residual Fuel Oil	—	1,474	0	—	-282	-51	—	—	1	1,242	1,900
Petrochemical Feedstocks ^e	—	1,450	40	—	35	72	—	—	0	1,453	337
Special Naphthas	—	662	0	—	117	-10	—	—	6	783	379
Lubricants	—	588	20	—	464	208	—	—	77	787	1,798
Waxes	—	108	8	—	0	4	—	—	23	89	60
Petroleum Coke	—	4,469	0	—	0	226	—	—	15	4,228	2,537
Asphalt and Road Oil	—	5,420	41	—	-70	-2,937	—	—	63	8,265	5,986
Still Gas	—	4,002	0	—	0	0	—	—	0	4,002	0
Miscellaneous Products	—	284	1	—	0	-114	—	—	(s)	399	240
Total	24,999	111,323	30,249	-3,526	99,040	-8,505	0	105,249	829	164,512	223,534

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 11. PAD District II—Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 139,588	—	231,533	-2,919	652,912	-8,814	0	1,017,117	12,811	0	62,079
Natural Gas Liquids and LRGs	87,351	38,874	36,811	—	-304	687	—	24,669	3,864	133,512	41,809
Pentanes Plus	11,263	—	335	—	6,303	-628	—	8,806	837	8,886	1,834
Liquefied Petroleum Gases	76,088	38,874	36,476	—	-6,607	1,315	—	15,863	3,027	124,626	39,975
Ethane/Ethylene	31,067	0	6,813	—	-18,758	-1,303	—	0	0	20,425	3,541
Propane/Propylene	29,809	33,214	25,309	—	8,793	-807	—	0	662	97,270	26,188
Normal Butane/Butylene	9,837	5,008	2,194	—	-527	3,424	—	6,895	2,365	3,828	8,509
Isobutane/Isobutylene	5,375	652	2,160	—	3,885	1	—	8,968	0	3,103	1,737
Other Liquids	-16,114	—	3	—	22,277	2,594	—	9,674	326	-6,428	27,747
Other Hydrocarbons/Oxygenates	12,275	—	0	—	0	1,044	—	10,906	325	0	3,164
Unfinished Oils	—	—	3	—	688	1,844	—	5,276	0	-6,429	13,769
Motor Gasoline Blend. Comp.	-28,389	—	0	—	21,589	-305	—	-6,496	1	0	10,789
Aviation Gasoline Blend. Comp.	—	—	0	—	0	11	—	-12	0	1	25
Finished Petroleum Products	37,732	1,063,024	3,888	—	259,986	-13,571	—	—	3,617	1,374,585	91,899
Finished Motor Gasoline	37,732	549,260	665	—	142,812	-2,011	—	—	225	732,255	40,352
Reformulated	—	89,004	0	—	17,473	818	—	—	3	105,656	1,727
Oxygenated	93,432	13,825	0	—	-69	196	—	—	0	106,992	615
Other	-55,700	446,431	665	—	125,408	-3,025	—	—	222	519,607	38,010
Finished Aviation Gasoline	—	1,468	16	—	798	-106	—	—	0	2,388	404
Jet Fuel	—	66,875	4	—	38,803	-1,762	—	—	252	107,192	7,840
Naphtha-Type	—	0	4	—	0	0	—	—	1	3	0
Kerosene-Type	—	66,875	0	—	38,803	-1,762	—	—	251	107,189	7,840
Kerosene	—	4,468	1	—	170	329	—	—	3	4,307	1,540
Distillate Fuel Oil	—	250,171	1,565	—	73,430	-4,914	—	—	316	329,764	28,526
0.05 percent sulfur and under	—	181,832	1,103	—	60,546	-2,970	—	—	76	246,375	20,903
Greater than 0.05 percent sulfur ...	—	68,339	462	—	12,884	-1,944	—	—	240	83,389	7,623
Residual Fuel Oil	—	16,521	440	—	-2,916	-435	—	—	276	14,204	1,900
Petrochemical Feedstocks ^e	—	13,729	423	—	561	103	—	—	0	14,610	337
Special Naphthas	—	7,366	272	—	1,522	-62	—	—	103	9,119	379
Lubricants	—	5,878	295	—	2,907	213	—	—	731	8,136	1,798
Waxes	—	1,019	68	—	0	-19	—	—	256	850	60
Petroleum Coke	—	42,490	0	—	0	-1,219	—	—	710	42,999	2,537
Asphalt and Road Oil	—	59,555	128	—	1,899	-3,653	—	—	737	64,498	5,986
Still Gas	—	41,003	0	—	0	0	—	—	0	41,003	0
Miscellaneous Products	—	3,221	11	—	0	-35	—	—	6	3,261	240
Total	248,557	1,101,898	272,235	-2,919	934,871	-19,104	0	1,051,460	20,617	1,501,669	223,534

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 12. PAD District II—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, October 1999
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 439	—	822	-114	2,173	11	0	3,295	14	0
Natural Gas Liquids and LRGs	290	83	142	—	45	-57	—	105	2	510
Pentanes Plus	37	—	2	—	28	-17	—	35	0	49
Liquefied Petroleum Gases	253	83	140	—	18	-40	—	70	2	461
Ethane/Ethylene	106	0	15	—	-59	-7	—	0	0	68
Propane/Propylene	97	106	107	—	52	-5	—	0	1	366
Normal Butane/Butylene	36	-24	7	—	16	-27	—	47	1	13
Isobutane/Isobutylene	14	(s)	11	—	9	-2	—	23	0	13
Other Liquids	-103	—	(s)	—	85	6	—	-4	3	-24
Other Hydrocarbons/Oxygenates	41	—	0	—	0	(s)	—	37	3	0
Unfinished Oils	—	—	(s)	—	4	39	—	-12	0	-24
Motor Gasoline Blend. Comp.	-144	—	0	—	81	-33	—	-30	(s)	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	(s)	—	(s)	0	0
Finished Petroleum Products	181	3,508	11	—	892	-234	—	—	7	4,820
Finished Motor Gasoline	181	1,811	2	—	414	-100	—	—	1	2,507
Reformulated	—	288	0	—	67	-2	—	—	(s)	357
Oxygenated	372	48	0	—	-1	-6	—	—	0	425
Other	-191	1,476	2	—	348	-91	—	—	1	1,725
Finished Aviation Gasoline	—	5	(s)	—	5	2	—	—	0	9
Jet Fuel	—	216	0	—	156	3	—	—	(s)	369
Naphtha-Type	—	0	0	—	0	0	—	—	(s)	(s)
Kerosene-Type	—	216	0	—	156	3	—	—	0	369
Kerosene	—	11	0	—	3	-4	—	—	0	18
Distillate Fuel Oil	—	870	6	—	305	-51	—	—	(s)	1,232
0.05 percent sulfur and under	—	651	5	—	256	-14	—	—	(s)	927
Greater than 0.05 percent sulfur ...	—	219	1	—	49	-37	—	—	(s)	306
Residual Fuel Oil	—	48	0	—	-9	-2	—	—	(s)	40
Petrochemical Feedstocks ^e	—	47	1	—	1	2	—	—	0	47
Special Naphthas	—	21	0	—	4	(s)	—	—	(s)	25
Lubricants	—	19	1	—	15	7	—	—	2	25
Waxes	—	3	(s)	—	0	(s)	—	—	1	3
Petroleum Coke	—	144	0	—	0	7	—	—	(s)	136
Asphalt and Road Oil	—	175	1	—	-2	-95	—	—	2	267
Still Gas	—	129	0	—	0	0	—	—	0	129
Miscellaneous Products	—	9	(s)	—	0	-4	—	—	(s)	13
Total	806	3,591	976	-114	3,195	-274	0	3,395	27	5,307

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 13. PAD District II—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 459	—	762	-10	2,148	-29	0	3,346	42	0
Natural Gas Liquids and LRGs	287	128	121	—	-1	2	—	81	13	439
Pentanes Plus	37	—	1	—	21	-2	—	29	3	29
Liquefied Petroleum Gases	250	128	120	—	-22	4	—	52	10	410
Ethane/Ethylene	102	0	22	—	-62	-4	—	0	0	67
Propane/Propylene	98	109	83	—	29	-3	—	0	2	320
Normal Butane/Butylene	32	16	7	—	-2	11	—	23	8	13
Isobutane/Isobutylene	18	2	7	—	13	(s)	—	30	0	10
Other Liquids	-53	—	(s)	—	73	9	—	32	1	-21
Other Hydrocarbons/Oxygenates	40	—	0	—	0	3	—	36	1	0
Unfinished Oils	—	—	(s)	—	2	6	—	17	0	-21
Motor Gasoline Blend. Comp.	-93	—	0	—	71	-1	—	-21	(s)	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	(s)	—	(s)	0	(s)
Finished Petroleum Products	124	3,497	13	—	855	-45	—	—	12	4,522
Finished Motor Gasoline	124	1,807	2	—	470	-7	—	—	1	2,409
Reformulated	—	293	0	—	57	3	—	—	(s)	348
Oxygenated	307	45	0	—	(s)	1	—	—	0	352
Other	-183	1,469	2	—	413	-10	—	—	1	1,709
Finished Aviation Gasoline	—	5	(s)	—	3	(s)	—	—	0	8
Jet Fuel	—	220	(s)	—	128	-6	—	—	1	353
Naphtha-Type	—	0	(s)	—	0	0	—	—	(s)	(s)
Kerosene-Type	—	220	0	—	128	-6	—	—	1	353
Kerosene	—	15	(s)	—	1	1	—	—	(s)	14
Distillate Fuel Oil	—	823	5	—	242	-16	—	—	1	1,085
0.05 percent sulfur and under	—	598	4	—	199	-10	—	—	(s)	810
Greater than 0.05 percent sulfur ..	—	225	2	—	42	-6	—	—	1	274
Residual Fuel Oil	—	54	1	—	-10	-1	—	—	1	47
Petrochemical Feedstocks ^e	—	45	1	—	2	(s)	—	—	0	48
Special Naphthas	—	24	1	—	5	(s)	—	—	(s)	30
Lubricants	—	19	1	—	10	1	—	—	2	27
Waxes	—	3	(s)	—	0	(s)	—	—	1	3
Petroleum Coke	—	140	0	—	0	-4	—	—	2	141
Asphalt and Road Oil	—	196	(s)	—	6	-12	—	—	2	212
Still Gas	—	135	0	—	0	0	—	—	0	135
Miscellaneous Products	—	11	(s)	—	0	(s)	—	—	(s)	11
Total	818	3,625	896	-10	3,075	-63	0	3,459	68	4,940

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 14. PAD District III—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1999
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 99,245	—	165,461	7,697	-62,880	-3,587	0	213,109	1	0	727,597
Natural Gas Liquids and LRGs	41,932	12,551	2,269	—	-191	-6,959	—	6,382	2,248	54,890	66,263
Pentanes Plus	6,334	—	1,782	—	-447	-127	—	2,132	0	5,664	5,967
Liquefied Petroleum Gases	35,598	12,551	487	—	256	-6,832	—	4,250	2,248	49,226	60,296
Ethane/Ethylene	16,728	901	407	—	4,155	114	—	0	0	22,077	14,936
Propane/Propylene	11,503	11,809	80	—	-3,785	-2,884	—	0	1,793	20,698	21,560
Normal Butane/Butylene	2,829	-568	0	—	-120	-4,414	—	2,293	455	3,807	19,102
Isobutane/Isobutylene	4,538	409	0	—	6	352	—	1,957	0	2,644	4,698
Other Liquids	6,306	—	8,908	—	-3,784	-1,216	—	16,001	999	-4,354	65,952
Other Hydrocarbons/Oxygenates	4,863	—	0	—	0	528	—	3,811	524	0	6,391
Unfinished Oils	—	—	8,850	—	161	-780	—	14,145	0	-4,354	44,256
Motor Gasoline Blend. Comp.	1,442	—	58	—	-3,945	-969	—	-1,950	474	0	15,274
Aviation Gasoline Blend. Comp.	—	—	0	—	0	5	—	-5	0	0	31
Finished Petroleum Products	-1,363	239,221	9,584	—	-117,464	-3,261	—	—	17,485	115,755	124,991
Finished Motor Gasoline	-1,363	111,408	0	—	-67,059	-959	—	—	3,687	40,258	44,144
Reformulated	—	22,722	0	—	-13,963	-1,177	—	—	0	9,936	10,195
Oxygenated	795	46	0	—	0	76	—	—	0	765	76
Other	-2,158	88,640	0	—	-53,096	142	—	—	3,687	29,557	33,873
Finished Aviation Gasoline	—	428	0	—	-287	38	—	—	0	103	368
Jet Fuel	—	23,952	0	—	-18,694	-1,596	—	—	661	6,193	14,555
Naphtha-Type	—	4	0	—	0	7	—	—	29	-32	14
Kerosene-Type	—	23,948	0	—	-18,694	-1,603	—	—	632	6,225	14,541
Kerosene	—	1,289	0	—	-172	681	—	—	33	403	1,656
Distillate Fuel Oil	—	50,653	359	—	-28,239	232	—	—	4,651	17,890	31,438
0.05 percent sulfur and under	—	33,364	212	—	-20,416	-427	—	—	759	12,828	19,447
Greater than 0.05 percent sulfur ...	—	17,289	147	—	-7,823	659	—	—	3,891	5,063	11,991
Residual Fuel Oil	—	9,621	2,243	—	-1,224	376	—	—	3,352	6,912	14,175
Petrochemical Feedstocks ^e	—	10,813	6,831	—	-67	-308	—	—	0	17,885	3,179
Special Naphthas	—	1,886	37	—	-214	31	—	—	41	1,637	1,691
Lubricants	—	3,985	15	—	-1,324	-207	—	—	602	2,281	6,142
Waxes	—	310	35	—	0	63	—	—	42	240	402
Petroleum Coke	—	10,949	0	—	0	-29	—	—	4,395	6,583	3,286
Asphalt and Road Oil	—	3,520	60	—	-184	-1,611	—	—	21	4,986	2,826
Still Gas	—	9,333	0	—	0	0	—	—	0	9,333	0
Miscellaneous Products	—	1,074	4	—	0	28	—	—	1	1,049	1,129
Total	146,120	251,772	186,222	7,697	-184,319	-15,023	0	235,492	20,732	166,291	984,803

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 15. PAD District III—Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 977,117	—	1,725,696	31,387	-605,676	-11,793	10	2,140,295	12	0	727,597
Natural Gas Liquids and LRGs	381,421	145,503	16,647	—	12,096	-4,567	—	55,213	9,621	495,400	66,263
Pentanes Plus	58,355	—	10,632	—	-1,929	287	—	20,322	(s)	46,449	5,967
Liquefied Petroleum Gases	323,066	145,503	6,015	—	14,025	-4,854	—	34,891	9,621	448,951	60,296
Ethane/Ethylene	148,345	8,311	841	—	37,320	-1,276	—	0	0	196,093	14,936
Propane/Propylene	106,255	108,755	2,838	—	-26,850	-8,818	—	0	7,183	192,633	21,560
Normal Butane/Butylene	25,405	23,766	1,418	—	4,589	5,385	—	14,648	2,438	32,707	19,102
Isobutane/Isobutylene	43,061	4,671	918	—	-1,034	-145	—	20,243	0	27,518	4,698
Other Liquids	54,049	—	67,654	—	-27,555	1,098	—	113,802	9,770	-30,522	65,952
Other Hydrocarbons/Oxygenates	44,422	—	0	—	0	921	—	36,618	6,883	0	6,391
Unfinished Oils	—	—	65,496	—	-204	-1,408	—	97,252	0	-30,552	44,256
Motor Gasoline Blend. Comp.	9,627	—	2,158	—	-27,351	1,606	—	-20,059	2,887	0	15,274
Aviation Gasoline Blend. Comp.	—	—	0	—	0	-21	—	-9	0	30	31
Finished Petroleum Products	-8,983	2,308,782	88,289	—	-1,155,512	-10,066	—	—	132,543	1,110,100	124,991
Finished Motor Gasoline	-8,983	1,071,827	767	—	-664,918	-6,772	—	—	28,577	376,889	44,144
Reformulated	—	205,586	267	—	-119,326	918	—	—	0	85,609	10,195
Oxygenated	6,444	629	0	—	-5,681	75	—	—	1	1,316	76
Other	-15,426	865,612	500	—	-539,911	-7,765	—	—	28,576	289,964	33,873
Finished Aviation Gasoline	—	4,022	0	—	-1,903	18	—	—	0	2,101	368
Jet Fuel	—	249,444	2	—	-187,388	444	—	—	5,134	56,480	14,555
Naphtha-Type	—	10	0	—	0	13	—	—	756	-759	14
Kerosene-Type	—	249,434	2	—	-187,388	431	—	—	4,378	57,239	14,541
Kerosene	—	8,626	0	—	-1,127	83	—	—	111	7,305	1,656
Distillate Fuel Oil	—	466,218	1,902	—	-268,645	148	—	—	26,561	172,766	31,438
0.05 percent sulfur and under	—	308,832	212	—	-185,932	787	—	—	8,360	113,965	19,447
Greater than 0.05 percent sulfur ...	—	157,386	1,690	—	-82,713	-639	—	—	18,201	58,801	11,991
Residual Fuel Oil	—	98,932	16,077	—	-10,641	-1,154	—	—	25,162	80,360	14,175
Petrochemical Feedstocks ^e	—	105,210	67,957	—	-1,483	24	—	—	0	171,660	3,179
Special Naphthas	—	14,385	765	—	-2,537	69	—	—	386	12,158	1,691
Lubricants	—	37,934	96	—	-11,742	-1,544	—	—	5,253	22,579	6,142
Waxes	—	3,020	126	—	-11	-155	—	—	393	2,897	402
Petroleum Coke	—	107,892	0	—	0	243	—	—	40,769	66,880	3,286
Asphalt and Road Oil	—	38,678	555	—	-5,117	-1,322	—	—	186	35,252	2,826
Still Gas	—	92,337	0	—	0	0	—	—	0	92,337	0
Miscellaneous Products	—	10,257	42	—	0	-148	—	—	12	10,435	1,129
Total	1,403,604	2,454,285	1,898,286	31,387	-1,776,647	-25,328	10	2,309,310	151,945	1,574,978	984,803

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.
^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.
^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.
^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.
^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
(s) = Less than 500 barrels.
E = Estimated.
LRG = Liquefied Refinery Gas.
— = Not Applicable.

Note: Totals may not equal sum of components due to independent rounding.
Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 16. PAD District III—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, October 1999
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 3,201	—	5,337	248	-2,028	-116	0	6,874	(s)	0
Natural Gas Liquids and LRGs	1,353	405	73	—	-6	-224	—	206	73	1,771
Pentanes Plus	204	—	57	—	-14	-4	—	69	0	183
Liquefied Petroleum Gases	1,148	405	16	—	8	-220	—	137	73	1,588
Ethane/Ethylene	540	29	13	—	134	4	—	0	0	712
Propane/Propylene	371	381	3	—	-122	-93	—	0	58	668
Normal Butane/Butylene	91	-18	0	—	-4	-142	—	74	15	123
Isobutane/Isobutylene	146	13	0	—	(s)	11	—	63	0	85
Other Liquids	203	—	287	—	-122	-39	—	516	32	-140
Other Hydrocarbons/Oxygenates	157	—	0	—	0	17	—	123	17	0
Unfinished Oils	—	—	285	—	5	-25	—	456	0	-140
Motor Gasoline Blend. Comp.	47	—	2	—	-127	-31	—	-63	15	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	(s)	—	(s)	0	0
Finished Petroleum Products	-44	7,717	309	—	-3,789	-105	—	—	564	3,734
Finished Motor Gasoline	-44	3,594	0	—	-2,163	-31	—	—	119	1,299
Reformulated	—	733	0	—	-450	-38	—	—	0	321
Oxygenated	26	1	0	—	0	2	—	—	0	25
Other	-70	2,859	0	—	-1,713	5	—	—	119	953
Finished Aviation Gasoline	—	14	0	—	-9	1	—	—	0	3
Jet Fuel	—	773	0	—	-603	-51	—	—	21	200
Naphtha-Type	—	(s)	0	—	0	(s)	—	—	1	-1
Kerosene-Type	—	773	0	—	-603	-52	—	—	20	201
Kerosene	—	42	0	—	-6	22	—	—	1	13
Distillate Fuel Oil	—	1,634	12	—	-911	7	—	—	150	577
0.05 percent sulfur and under	—	1,076	7	—	-659	-14	—	—	24	414
Greater than 0.05 percent sulfur ...	—	558	5	—	-252	21	—	—	126	163
Residual Fuel Oil	—	310	72	—	-39	12	—	—	108	223
Petrochemical Feedstocks ^e	—	349	220	—	-2	-10	—	—	0	577
Special Naphthas	—	61	1	—	-7	1	—	—	1	53
Lubricants	—	129	(s)	—	-43	-7	—	—	19	74
Waxes	—	10	1	—	0	2	—	—	1	8
Petroleum Coke	—	353	0	—	0	-1	—	—	142	212
Asphalt and Road Oil	—	114	2	—	-6	-52	—	—	1	161
Still Gas	—	301	0	—	0	0	—	—	0	301
Miscellaneous Products	—	35	(s)	—	0	1	—	—	(s)	34
Total	4,714	8,122	6,007	248	-5,946	-485	0	7,597	669	5,364

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 17. PAD District III—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 3,214	—	5,677	103	-1,992	-39	(s)	7,040	(s)	0
Natural Gas Liquids and LRGs	1,255	479	55	—	40	-15	—	182	32	1,630
Pentanes Plus	192	—	35	—	-6	1	—	67	(s)	153
Liquefied Petroleum Gases	1,063	479	20	—	46	-16	—	115	32	1,477
Ethane/Ethylene	488	27	3	—	123	-4	—	0	0	645
Propane/Propylene	350	358	9	—	-88	-29	—	0	24	634
Normal Butane/Butylene	84	78	5	—	15	18	—	48	8	108
Isobutane/Isobutylene	142	15	3	—	-3	(s)	—	67	0	91
Other Liquids	178	—	223	—	-91	4	—	374	32	-100
Other Hydrocarbons/Oxygenates	146	—	0	—	0	3	—	120	23	0
Unfinished Oils	—	—	215	—	-1	-5	—	320	0	-101
Motor Gasoline Blend. Comp.	32	—	7	—	-90	5	—	-66	9	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	(s)	—	(s)	0	(s)
Finished Petroleum Products	-30	7,595	290	—	-3,801	-33	—	—	436	3,652
Finished Motor Gasoline	-30	3,526	3	—	-2,187	-22	—	—	94	1,240
Reformulated	—	676	1	—	-393	3	—	—	0	282
Oxygenated	21	2	0	—	-19	(s)	—	—	(s)	4
Other	-51	2,847	2	—	-1,776	-26	—	—	94	954
Finished Aviation Gasoline	—	13	0	—	-6	(s)	—	—	0	7
Jet Fuel	—	821	(s)	—	-616	1	—	—	17	186
Naphtha-Type	—	(s)	0	—	0	(s)	—	—	2	-2
Kerosene-Type	—	821	(s)	—	-616	1	—	—	14	188
Kerosene	—	28	0	—	-4	(s)	—	—	(s)	24
Distillate Fuel Oil	—	1,534	6	—	-884	(s)	—	—	87	568
0.05 percent sulfur and under	—	1,016	1	—	-612	3	—	—	27	375
Greater than 0.05 percent sulfur ...	—	518	6	—	-272	-2	—	—	60	193
Residual Fuel Oil	—	325	53	—	-35	-4	—	—	83	264
Petrochemical Feedstocks ^e	—	346	224	—	-5	(s)	—	—	0	565
Special Naphthas	—	47	3	—	-8	(s)	—	—	1	40
Lubricants	—	125	(s)	—	-39	-5	—	—	17	74
Waxes	—	10	(s)	—	(s)	-1	—	—	1	10
Petroleum Coke	—	355	0	—	0	1	—	—	134	220
Asphalt and Road Oil	—	127	2	—	-17	-4	—	—	1	116
Still Gas	—	304	0	—	0	0	—	—	0	304
Miscellaneous Products	—	34	(s)	—	0	(s)	—	—	(s)	34
Total	4,617	8,073	6,244	103	-5,844	-83	(s)	7,596	500	5,181

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 18. PAD District IV—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1999
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 9,929	—	4,833	3,762	-2,840	-210	0	15,885	10	0	11,851
Natural Gas Liquids and LRGs	5,736	183	515	—	-4,726	63	—	614	0	1,031	1,461
Pentanes Plus	849	—	129	—	-411	8	—	209	0	350	215
Liquefied Petroleum Gases	4,887	183	386	—	-4,315	55	—	405	0	681	1,246
Ethane/Ethylene	2,296	0	0	—	-2,324	4	—	0	0	-32	216
Propane/Propylene	1,652	269	171	—	-1,301	62	—	0	0	729	554
Normal Butane/Butylene	598	-53	197	—	-407	17	—	255	0	63	358
Isobutane/Isobutylene	341	-33	18	—	-283	-28	—	150	0	-79	118
Other Liquids	197	—	0	—	0	216	—	43	3	-65	4,193
Other Hydrocarbons/Oxygenates	69	—	0	—	0	-39	—	105	3	0	221
Unfinished Oils	—	—	0	—	0	345	—	-280	0	-65	2,507
Motor Gasoline Blend. Comp.	128	—	0	—	0	-90	—	218	0	0	1,465
Aviation Gasoline Blend. Comp.	—	—	0	—	0	0	—	0	0	0	0
Finished Petroleum Products	11	16,927	200	—	1,788	-374	—	—	14	19,286	9,179
Finished Motor Gasoline	11	8,406	14	—	193	355	—	—	0	8,269	4,713
Reformulated	—	0	0	—	0	0	—	—	0	0	0
Oxygenated	1,392	647	0	—	29	119	—	—	0	1,949	228
Other	-1,380	7,759	14	—	164	236	—	—	0	6,321	4,485
Finished Aviation Gasoline	—	16	5	—	8	-11	—	—	0	40	31
Jet Fuel	—	789	0	—	1,040	-63	—	—	0	1,892	761
Naphtha-Type	—	0	0	—	0	0	—	—	0	0	0
Kerosene-Type	—	789	0	—	1,040	-63	—	—	0	1,892	761
Kerosene	—	58	0	—	-6	-27	—	—	0	79	96
Distillate Fuel Oil	—	4,523	181	—	553	-348	—	—	0	5,605	2,504
0.05 percent sulfur and under	—	3,837	100	—	558	-207	—	—	0	4,702	2,162
Greater than 0.05 percent sulfur ...	—	686	81	—	-5	-141	—	—	0	903	342
Residual Fuel Oil	—	310	0	—	0	-20	—	—	0	330	391
Petrochemical Feedstocks ^e	—	25	0	—	0	0	—	—	0	25	0
Special Naphthas	—	0	0	—	0	6	—	—	(s)	-6	6
Lubricants	—	0	0	—	0	0	—	—	8	-8	0
Waxes	—	122	0	—	0	-1	—	—	4	119	27
Petroleum Coke	—	520	0	—	0	-5	—	—	0	525	50
Asphalt and Road Oil	—	1,484	0	—	0	-259	—	—	2	1,741	581
Still Gas	—	613	0	—	0	0	—	—	0	613	0
Miscellaneous Products	—	61	0	—	0	-1	—	—	0	62	19
Total	15,873	17,110	5,548	3,762	-5,778	-305	0	16,542	26	20,252	26,684

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 19. PAD District IV—Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 95,915	—	50,683	30,644	-26,785	-547	0	150,994	10	0	11,851
Natural Gas Liquids and LRGs	49,184	2,162	2,977	—	-42,492	48	—	4,628	19	7,136	1,461
Pentanes Plus	8,165	—	1,003	—	-4,374	3	—	1,726	0	3,065	215
Liquefied Petroleum Gases	41,019	2,162	1,974	—	-38,118	45	—	2,902	19	4,071	1,246
Ethane/Ethylene	16,733	0	0	—	-18,562	6	—	0	0	-1,835	216
Propane/Propylene	15,013	2,602	1,486	—	-12,043	67	—	0	11	6,980	554
Normal Butane/Butylene	5,948	43	403	—	-4,519	43	—	1,420	8	404	358
Isobutane/Isobutylene	3,325	-483	85	—	-2,994	-71	—	1,482	0	-1,478	118
Other Liquids	1,763	—	0	—	0	-780	—	3,184	45	-686	4,193
Other Hydrocarbons/Oxygenates	770	—	0	—	0	-42	—	767	45	0	221
Unfinished Oils	—	—	0	—	0	-141	—	827	0	-686	2,507
Motor Gasoline Blend. Comp.	993	—	0	—	0	-597	—	1,590	0	0	1,465
Aviation Gasoline Blend. Comp.	—	—	0	—	0	0	—	0	0	0	0
Finished Petroleum Products	135	162,190	2,319	—	19,131	-2,082	—	—	148	185,708	9,179
Finished Motor Gasoline	135	79,183	115	—	4,492	31	—	—	10	83,883	4,713
Reformulated	—	0	0	—	0	0	—	—	0	0	0
Oxygenated	11,276	2,944	0	—	69	75	—	—	9	14,206	228
Other	-11,142	76,239	115	—	4,423	-44	—	—	2	69,677	4,485
Finished Aviation Gasoline	—	141	40	—	127	-4	—	—	0	312	31
Jet Fuel	—	7,995	0	—	10,369	-34	—	—	0	18,398	761
Naphtha-Type	—	0	0	—	0	0	—	—	0	0	0
Kerosene-Type	—	7,995	0	—	10,369	-34	—	—	0	18,398	761
Kerosene	—	616	0	—	-48	-34	—	—	0	602	96
Distillate Fuel Oil	—	43,594	2,107	—	4,191	-549	—	—	0	50,441	2,504
0.05 percent sulfur and under	—	35,882	1,055	—	4,240	-376	—	—	0	41,553	2,162
Greater than 0.05 percent sulfur ...	—	7,712	1,052	—	-49	-173	—	—	0	8,888	342
Residual Fuel Oil	—	3,550	0	—	0	-76	—	—	0	3,626	391
Petrochemical Feedstocks ^e	—	213	0	—	0	0	—	—	0	213	0
Special Naphthas	—	0	0	—	0	6	—	—	3	-9	6
Lubricants	—	0	0	—	0	0	—	—	84	-84	0
Waxes	—	1,134	0	—	0	-21	—	—	40	1,115	27
Petroleum Coke	—	5,135	0	—	0	-178	—	—	0	5,313	50
Asphalt and Road Oil	—	13,669	57	—	0	-1,222	—	—	11	14,937	581
Still Gas	—	6,385	0	—	0	0	—	—	0	6,385	0
Miscellaneous Products	—	575	0	—	0	-1	—	—	0	576	19
Total	146,997	164,352	55,979	30,644	-50,146	-3,361	0	158,806	222	192,158	26,684

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 20. PAD District IV—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, October 1999
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 320	—	156	121	-92	-7	0	512	(s)	0
Natural Gas Liquids and LRGs	185	6	17	—	-152	2	—	20	0	33
Pentanes Plus	27	—	4	—	-13	(s)	—	7	0	11
Liquefied Petroleum Gases	158	6	12	—	-139	2	—	13	0	22
Ethane/Ethylene	74	0	0	—	-75	(s)	—	0	0	-1
Propane/Propylene	53	9	6	—	-42	2	—	0	0	24
Normal Butane/Butylene	19	-2	6	—	-13	1	—	8	0	2
Isobutane/Isobutylene	11	-1	1	—	-9	-1	—	5	0	-3
Other Liquids	6	—	0	—	0	7	—	1	(s)	-2
Other Hydrocarbons/Oxygenates	2	—	0	—	0	-1	—	3	(s)	0
Unfinished Oils	—	—	0	—	0	11	—	-9	0	-2
Motor Gasoline Blend. Comp.	4	—	0	—	0	-3	—	7	0	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	0	—	0	0	0
Finished Petroleum Products	(s)	546	6	—	58	-12	—	—	(s)	622
Finished Motor Gasoline	(s)	271	(s)	—	6	11	—	—	0	267
Reformulated	—	0	0	—	0	0	—	—	0	0
Oxygenated	45	21	0	—	1	4	—	—	0	63
Other	-45	250	(s)	—	5	8	—	—	0	204
Finished Aviation Gasoline	—	1	(s)	—	(s)	(s)	—	—	0	1
Jet Fuel	—	25	0	—	34	-2	—	—	0	61
Naphtha-Type	—	0	0	—	0	0	—	—	0	0
Kerosene-Type	—	25	0	—	34	-2	—	—	0	61
Kerosene	—	2	0	—	(s)	-1	—	—	0	3
Distillate Fuel Oil	—	146	6	—	18	-11	—	—	0	181
0.05 percent sulfur and under	—	124	3	—	18	-7	—	—	0	152
Greater than 0.05 percent sulfur ...	—	22	3	—	(s)	-5	—	—	0	29
Residual Fuel Oil	—	10	0	—	0	-1	—	—	0	11
Petrochemical Feedstocks ^e	—	1	0	—	0	0	—	—	0	1
Special Naphthas	—	0	0	—	0	(s)	—	—	(s)	(s)
Lubricants	—	0	0	—	0	0	—	—	(s)	(s)
Waxes	—	4	0	—	0	(s)	—	—	(s)	4
Petroleum Coke	—	17	0	—	0	(s)	—	—	0	17
Asphalt and Road Oil	—	48	0	—	0	-8	—	—	(s)	56
Still Gas	—	20	0	—	0	0	—	—	0	20
Miscellaneous Products	—	2	0	—	0	(s)	—	—	0	2
Total	512	552	179	121	-186	-10	0	534	1	653

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 21. PAD District IV—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 316	—	167	101	-88	-2	0	497	(s)	0
Natural Gas Liquids and LRGs	162	7	10	—	-140	(s)	—	15	(s)	23
Pentanes Plus	27	—	3	—	-14	(s)	—	6	0	10
Liquefied Petroleum Gases	135	7	6	—	-125	(s)	—	10	(s)	13
Ethane/Ethylene	55	0	0	—	-61	(s)	—	0	0	-6
Propane/Propylene	49	9	5	—	-40	(s)	—	0	(s)	23
Normal Butane/Butylene	20	(s)	1	—	-15	(s)	—	5	(s)	1
Isobutane/Isobutylene	11	-2	(s)	—	-10	(s)	—	5	0	-5
Other Liquids	6	—	0	—	0	-3	—	10	(s)	-2
Other Hydrocarbons/Oxygenates	3	—	0	—	0	(s)	—	3	(s)	0
Unfinished Oils	—	—	0	—	0	(s)	—	3	0	-2
Motor Gasoline Blend. Comp.	3	—	—	—	0	-2	—	5	0	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	0	—	0	0	0
Finished Petroleum Products	(s)	534	8	—	63	-7	—	—	(s)	611
Finished Motor Gasoline	(s)	260	(s)	—	15	(s)	—	—	(s)	276
Reformulated	—	0	0	—	0	0	—	—	0	0
Oxygenated	37	10	0	—	(s)	(s)	—	—	(s)	47
Other	-37	251	(s)	—	15	(s)	—	—	(s)	229
Finished Aviation Gasoline	—	(s)	(s)	—	(s)	(s)	—	—	0	1
Jet Fuel	—	26	0	—	34	(s)	—	—	0	61
Naphtha-Type	—	0	0	—	0	0	—	—	0	0
Kerosene-Type	—	26	0	—	34	(s)	—	—	0	61
Kerosene	—	2	0	—	(s)	(s)	—	—	0	2
Distillate Fuel Oil	—	143	7	—	14	-2	—	—	0	166
0.05 percent sulfur and under	—	118	3	—	14	-1	—	—	0	137
Greater than 0.05 percent sulfur ...	—	25	3	—	(s)	-1	—	—	0	29
Residual Fuel Oil	—	12	0	—	0	(s)	—	—	0	12
Petrochemical Feedstocks ^e	—	1	0	—	0	0	—	—	0	1
Special Naphthas	—	0	0	—	0	(s)	—	—	(s)	(s)
Lubricants	—	0	0	—	0	0	—	—	(s)	(s)
Waxes	—	4	0	—	0	(s)	—	—	(s)	4
Petroleum Coke	—	17	0	—	0	-1	—	—	0	17
Asphalt and Road Oil	—	45	(s)	—	0	-4	—	—	(s)	49
Still Gas	—	21	0	—	0	0	—	—	0	21
Miscellaneous Products	—	2	0	—	0	(s)	—	—	0	2
Total	484	541	184	101	-165	-11	0	522	1	632

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 22. PAD District V—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1999
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 58,745	—	19,424	3,513	-1,369	5,042	0	73,981	1,290	0	60,639
Natural Gas Liquids and LRGs	2,529	1,881	8	—	0	-138	—	2,443	137	1,976	6,188
Pentanes Plus	1,245	—	0	—	0	-7	—	939	0	313	68
Liquefied Petroleum Gases	1,284	1,881	8	—	0	-131	—	1,504	137	1,663	6,120
Ethane/Ethylene	3	0	0	—	0	7	—	0	0	-4	7
Propane/Propylene	389	1,450	8	—	0	-68	—	0	137	1,778	2,308
Normal Butane/Butylene	409	407	0	—	0	-39	—	1,034	(s)	-179	3,273
Isobutane/Isobutylene	483	24	0	—	0	-31	—	470	0	68	532
Other Liquids	515	—	1,491	—	850	-687	—	4,982	88	-1,527	29,601
Other Hydrocarbons/Oxygenates	2,463	—	1,447	—	0	-123	—	3,946	87	0	2,945
Unfinished Oils	—	—	0	—	0	175	—	1,352	0	-1,527	19,233
Motor Gasoline Blend. Comp.	-1,948	—	44	—	850	-739	—	-316	1	0	7,421
Aviation Gasoline Blend. Comp.	—	—	0	—	0	0	—	0	0	0	2
Finished Petroleum Products	2,226	84,811	1,912	—	3,006	-2,310	—	—	5,362	88,904	53,407
Finished Motor Gasoline	2,226	40,967	8	—	1,993	-53	—	—	311	44,937	19,333
Reformulated	—	28,721	0	—	0	-604	—	—	2	29,323	9,890
Oxygenated	2,783	1,864	0	—	0	-34	—	—	20	4,661	296
Other	-557	10,382	8	—	1,993	585	—	—	288	10,953	9,147
Finished Aviation Gasoline	—	60	0	—	0	51	—	—	0	9	497
Jet Fuel	—	11,763	761	—	365	-2,196	—	—	192	14,893	8,955
Naphtha-Type	—	24	0	—	0	-7	—	—	25	6	22
Kerosene-Type	—	11,739	761	—	365	-2,189	—	—	167	14,887	8,933
Kerosene	—	118	0	—	0	20	—	—	18	80	113
Distillate Fuel Oil	—	14,251	514	—	617	-591	—	—	1,226	14,747	12,183
0.05 percent sulfur and under	—	11,107	198	—	566	-461	—	—	47	12,285	9,231
Greater than 0.05 percent sulfur ...	—	3,144	316	—	51	-130	—	—	1,179	2,462	2,952
Residual Fuel Oil	—	5,529	579	—	0	785	—	—	532	4,791	6,551
Petrochemical Feedstocks ^e	—	335	38	—	0	28	—	—	0	345	336
Special Naphthas	—	45	0	—	0	7	—	—	293	-255	36
Lubricants	—	650	0	—	31	-10	—	—	393	298	1,653
Waxes	—	-117	6	—	0	-26	—	—	17	-102	345
Petroleum Coke	—	4,875	6	—	0	46	—	—	2,334	2,501	1,362
Asphalt and Road Oil	—	1,914	0	—	0	-358	—	—	46	2,226	1,765
Still Gas	—	4,247	0	—	0	0	—	—	0	4,247	0
Miscellaneous Products	—	174	0	—	0	-13	—	—	1	186	278
Total	64,015	86,692	22,835	3,513	2,487	1,907	0	81,406	6,877	89,353	149,835

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.
^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.
^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.
^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.
^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
(s) = Less than 500 barrels.
E = Estimated.
LRG = Liquefied Refinery Gas.
— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 23. PAD District V—Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 582,783	—	179,970	14,532	-19,271	3,337	0	733,097	21,579	0	60,639
Natural Gas Liquids and LRGs	24,831	21,447	123	—	0	1,884	—	22,208	1,615	20,694	6,188
Pentanes Plus	12,832	—	0	—	0	9	—	9,485	1	3,337	68
Liquefied Petroleum Gases	11,999	21,447	123	—	0	1,875	—	12,723	1,614	17,357	6,120
Ethane/Ethylene	30	0	0	—	0	7	—	0	0	23	7
Propane/Propylene	3,524	13,090	123	—	0	199	—	0	1,252	15,286	2,308
Normal Butane/Butylene	3,657	6,598	0	—	0	1,508	—	8,500	362	-115	3,273
Isobutane/Isobutylene	4,788	1,759	0	—	0	161	—	4,223	0	2,163	532
Other Liquids	30,063	—	27,973	—	2,583	-1,903	—	58,290	734	3,498	29,601
Other Hydrocarbons/Oxygenates	25,166	—	15,246	—	0	-1,140	—	40,828	724	0	2,945
Unfinished Oils	—	—	9,982	—	0	-897	—	7,381	0	3,498	19,233
Motor Gasoline Blend. Comp.	4,897	—	2,745	—	2,583	154	—	10,061	10	0	7,421
Aviation Gasoline Blend. Comp.	—	—	0	—	0	-20	—	20	0	0	2
Finished Petroleum Products	-2,642	838,460	34,236	—	38,292	-2,850	—	—	67,915	843,281	53,407
Finished Motor Gasoline	-2,642	399,388	9,113	—	28,245	-2,607	—	—	1,843	434,869	19,333
Reformulated	—	287,816	3,014	—	40	-1,906	—	—	118	292,658	9,890
Oxygenated	22,553	5,157	0	—	5,681	292	—	—	359	32,739	296
Other	-25,194	106,415	6,099	—	22,524	-993	—	—	1,365	109,471	9,147
Finished Aviation Gasoline	—	569	0	—	0	-174	—	—	0	743	497
Jet Fuel	—	116,650	18,395	—	4,177	-328	—	—	1,646	137,904	8,955
Naphtha-Type	—	149	0	—	0	-11	—	—	25	135	22
Kerosene-Type	—	116,501	18,395	—	4,177	-317	—	—	1,621	137,769	8,933
Kerosene	—	1,196	0	—	0	-13	—	—	51	1,158	113
Distillate Fuel Oil	—	137,496	3,637	—	5,718	140	—	—	18,689	128,022	12,183
0.05 percent sulfur and under	—	105,733	1,953	—	4,795	502	—	—	3,372	108,607	9,231
Greater than 0.05 percent sulfur ...	—	31,763	1,684	—	923	-362	—	—	15,317	19,415	2,952
Residual Fuel Oil	—	64,756	2,551	—	0	591	—	—	13,579	53,137	6,551
Petrochemical Feedstocks ^e	—	3,388	145	—	0	-21	—	—	0	3,554	336
Special Naphthas	—	600	0	—	0	-13	—	—	3,493	-2,880	36
Lubricants	—	6,896	0	—	152	261	—	—	1,535	5,252	1,653
Waxes	—	305	133	—	0	97	—	—	156	185	345
Petroleum Coke	—	44,769	262	—	0	-450	—	—	26,659	18,822	1,362
Asphalt and Road Oil	—	18,116	0	—	0	-424	—	—	250	18,290	1,765
Still Gas	—	42,752	0	—	0	0	—	—	0	42,752	0
Miscellaneous Products	—	1,579	0	—	0	91	—	—	15	1,473	278
Total	635,035	859,907	242,302	14,532	21,604	468	0	813,595	91,843	867,473	149,835

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 24. PAD District V — Daily Average Supply and Disposition of Crude Oil and Petroleum Products, October 1999
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 1,895	—	627	113	-44	163	0	2,386	42	0
Natural Gas Liquids and LRGs	82	61	(s)	—	0	-4	—	79	4	64
Pentanes Plus	40	—	0	—	0	(s)	—	30	0	10
Liquefied Petroleum Gases	41	61	(s)	—	0	-4	—	49	4	54
Ethane/Ethylene	(s)	0	0	—	0	(s)	—	0	0	(s)
Propane/Propylene	13	47	(s)	—	0	-2	—	0	4	57
Normal Butane/Butylene	13	13	0	—	0	-1	—	33	(s)	-6
Isobutane/Isobutylene	16	1	0	—	0	-1	—	15	0	2
Other Liquids	17	—	48	—	27	-22	—	161	3	-49
Other Hydrocarbons/Oxygenates	79	—	47	—	0	-4	—	127	3	0
Unfinished Oils	—	—	0	—	0	6	—	44	0	-49
Motor Gasoline Blend. Comp.	-63	—	1	—	27	-24	—	-10	(s)	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	0	—	0	0	0
Finished Petroleum Products	72	2,736	62	—	97	-75	—	—	173	2,868
Finished Motor Gasoline	72	1,322	(s)	—	64	-2	—	—	10	1,450
Reformulated	—	926	0	—	0	-19	—	—	(s)	946
Oxygenated	90	60	0	—	0	-1	—	—	1	150
Other	-18	335	(s)	—	64	19	—	—	9	353
Finished Aviation Gasoline	—	2	0	—	0	2	—	—	0	(s)
Jet Fuel	—	379	25	—	12	-71	—	—	6	480
Naphtha-Type	—	1	0	—	0	(s)	—	—	1	(s)
Kerosene-Type	—	379	25	—	12	-71	—	—	5	480
Kerosene	—	4	0	—	0	1	—	—	1	3
Distillate Fuel Oil	—	460	17	—	20	-19	—	—	40	476
0.05 percent sulfur and under	—	358	6	—	18	-15	—	—	2	396
Greater than 0.05 percent sulfur ...	—	101	10	—	2	-4	—	—	38	79
Residual Fuel Oil	—	178	19	—	0	25	—	—	17	155
Petrochemical Feedstocks ^e	—	11	1	—	0	1	—	—	0	11
Special Naphthas	—	1	0	—	0	(s)	—	—	9	-8
Lubricants	—	21	0	—	1	(s)	—	—	13	10
Waxes	—	-4	(s)	—	0	-1	—	—	1	-3
Petroleum Coke	—	157	(s)	—	0	1	—	—	75	81
Asphalt and Road Oil	—	62	0	—	0	-12	—	—	1	72
Still Gas	—	137	0	—	0	0	—	—	0	137
Miscellaneous Products	—	6	0	—	0	(s)	—	—	(s)	6
Total	2,065	2,797	737	113	80	62	0	2,626	222	2,882

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.
^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.
^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.
^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.
^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
(s) = Less than 500 barrels per day.
E = Estimated.
LRG = Liquefied Refinery Gas.
— = Not Applicable.
Note: Totals may not equal sum of components due to independent rounding.
Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 25. PAD District V — Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1999
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 1,917	—	592	48	-63	11	0	2,412	71	0
Natural Gas Liquids and LRGs	82	71	(s)	—	0	6	—	73	5	68
Pentanes Plus	42	—	0	—	0	(s)	—	31	(s)	11
Liquefied Petroleum Gases	39	71	(s)	—	0	6	—	42	5	57
Ethane/Ethylene	(s)	0	0	—	0	(s)	—	0	0	(s)
Propane/Propylene	12	43	(s)	—	0	1	—	0	4	50
Normal Butane/Butylene	12	22	0	—	0	5	—	28	1	(s)
Isobutane/Isobutylene	16	6	0	—	0	1	—	14	0	7
Other Liquids	99	—	92	—	8	-6	—	192	2	12
Other Hydrocarbons/Oxygenates	83	—	50	—	0	-4	—	134	2	0
Unfinished Oils	—	—	33	—	0	-3	—	24	0	12
Motor Gasoline Blend. Comp.	16	—	9	—	8	1	—	33	(s)	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	(s)	—	(s)	0	0
Finished Petroleum Products	-9	2,758	113	—	126	-9	—	—	223	2,774
Finished Motor Gasoline	-9	1,314	30	—	93	-9	—	—	6	1,430
Reformulated	—	947	10	—	(s)	-6	—	—	(s)	963
Oxygenated	74	17	0	—	19	1	—	—	1	108
Other	-83	350	20	—	74	-3	—	—	4	360
Finished Aviation Gasoline	—	2	0	—	0	-1	—	—	0	2
Jet Fuel	—	384	61	—	14	-1	—	—	5	454
Naphtha-Type	—	(s)	0	—	0	(s)	—	—	(s)	(s)
Kerosene-Type	—	383	61	—	14	-1	—	—	5	453
Kerosene	—	4	0	—	0	(s)	—	—	(s)	4
Distillate Fuel Oil	—	452	12	—	19	(s)	—	—	61	421
0.05 percent sulfur and under	—	348	6	—	16	2	—	—	11	357
Greater than 0.05 percent sulfur ...	—	104	6	—	3	-1	—	—	50	64
Residual Fuel Oil	—	213	8	—	0	2	—	—	45	175
Petrochemical Feedstocks ^e	—	11	(s)	—	0	(s)	—	—	0	12
Special Naphthas	—	2	0	—	0	(s)	—	—	11	-9
Lubricants	—	23	0	—	1	1	—	—	5	17
Waxes	—	1	(s)	—	0	(s)	—	—	1	1
Petroleum Coke	—	147	1	—	0	-1	—	—	88	62
Asphalt and Road Oil	—	60	0	—	0	-1	—	—	1	60
Still Gas	—	141	0	—	0	0	—	—	0	141
Miscellaneous Products	—	5	0	—	0	(s)	—	—	(s)	5
Total	2,089	2,829	797	48	71	2	0	2,676	302	2,854

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

^c A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 26. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	August 1999		January-August 1999	
	Total	Daily Average	Total	Daily Average
PAD District I	E 752	E 24	E 6,147	E 25
Florida	E 430	E 14	E 3,634	E 15
New York	E 19	E 1	E 131	E 1
Pennsylvania	E 175	E 6	E 1,333	E 5
Virginia	E (s)	E (s)	E 2	E (s)
West Virginia	E 129	E 4	E 971	E 4
Adjustment ^a	0	0	75	(s)
PAD District II	E 13,897	E 448	E 112,429	E 463
Illinois	1,008	33	E 8,218	E 34
Indiana	176	6	1,314	5
Kansas	E 2,359	E 76	E 18,157	E 75
Kentucky	159	5	E 1,898	E 8
Michigan	E 571	E 18	E 5,212	E 21
Missouri	E 5	E (s)	E 55	E (s)
Nebraska	229	7	E 1,772	E 7
North Dakota	2,741	88	E 22,119	E 91
Ohio	E 559	E 18	E 4,780	E 20
Oklahoma	5,383	174	43,269	178
South Dakota	91	3	727	3
Tennessee	E 22	E 1	E 196	E 1
Adjustment ^a	595	19	4,713	19
PAD District III	E 101,390	E 3,271	E 779,982	E 3,210
Alabama	895	29	7,429	31
Arkansas	E 612	E 20	E 4,837	E 20
Louisiana ^b	9,910	320	E 83,119	E 342
Mississippi	E 1,665	E 54	E 11,788	E 49
New Mexico	E 5,510	E 178	E 41,727	E 172
Texas ^b	37,014	1,194	E 300,889	E 1,238
Federal Offshore PAD District III	E 42,840	E 1,382	E 310,666	E 1,278
Adjustment ^a	2,944	95	19,527	80
PAD District IV	E 9,785	E 316	E 76,485	E 315
Colorado	E 1,577	E 51	E 13,139	E 54
Montana	E 1,392	E 45	E 10,878	E 45
Utah	E 1,539	E 50	E 11,694	E 48
Wyoming	5,310	171	39,870	164
Adjustment ^a	-33	-1	903	4
PAD District V	E 57,445	E 1,853	E 471,155	E 1,939
Alaska ^b	E 31,337	E 1,011	E 258,579	E 1,064
South Alaska	884	29	7,317	30
North Slope	30,453	982	251,283	1,034
Adjustment for Alaska ^a	0	0	-21	(s)
Arizona	6	(s)	48	(s)
California ^b	22,091	713	E 177,799	E 732
Nevada	59	2	E 476	E 2
Federal Offshore PAD District V	3,046	98	E 26,960	E 111
Adjustment excluding Alaska ^a	905	29	7,293	30
U.S. Total^b	E 183,269	E 5,912	E 1,446,198	E 5,951

^a These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Revised data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual*.

^b Includes the following current month offshore production (thousand barrels): Alaska: State - 5,886; California: State - 1,590; Louisiana: State - 1,308; Texas: State - 43; U.S. Total, including Federal offshore - E54,714.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

NA = Not Available.

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

Sources: State government agencies, U.S. Department of the Interior, Minerals Management Service and the Conservation Committee of California Oil Producers.

Table 27. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, October 1999
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Net Production							
Natural Gas Liquids	141	736	877	414	363	8,218	8,995
Pentanes Plus	14	87	101	76	87	995	1,158
Liquefied Petroleum Gases	127	649	776	338	276	7,223	7,837
Ethane	51	218	269	114	0	3,180	3,294
Propane	45	294	339	115	174	2,711	3,000
Normal Butane	31	96	127	58	102	944	1,104
Isobutane	0	41	41	51	0	388	439
Stocks							
Natural Gas Liquids	12	51	63	90	57	1,652	1,799
Pentanes Plus	0	7	7	12	14	93	119
Liquefied Petroleum Gases	12	44	56	78	43	1,559	1,680
Ethane	0	0	0	17	0	220	237
Propane	7	24	31	34	30	1,081	1,145
Normal Butane	5	12	17	12	13	164	189
Isobutane	0	8	8	15	0	94	109

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Net Production									
Natural Gas Liquids	18,337	4,949	11,662	494	6,490	41,932	5,736	2,529	60,069
Pentanes Plus	2,988	616	1,853	152	725	6,334	849	1,245	9,687
Liquefied Petroleum Gases	15,349	4,333	9,809	342	5,765	35,598	4,887	1,284	50,382
Ethane	7,219	2,033	4,310	71	3,095	16,728	2,296	3	22,590
Propane	5,111	1,154	3,367	133	1,738	11,503	1,652	389	16,883
Normal Butane	2,063	-1,045	1,109	88	614	2,829	598	409	5,067
Isobutane	956	2,191	1,023	50	318	4,538	341	483	5,842
Stocks									
Natural Gas Liquids	170	1,368	873	59	89	2,559	318	218	4,957
Pentanes Plus	54	326	140	14	21	555	128	19	828
Liquefied Petroleum Gases	116	1,042	733	45	68	2,004	190	199	4,129
Ethane	8	354	11	10	0	383	4	0	624
Propane	73	223	96	14	32	438	103	160	1,877
Normal Butane	25	267	205	9	16	522	67	18	813
Isobutane	10	198	421	12	20	661	16	21	815

Note: Refer to Appendix A for Refining District descriptions.

Source: Energy Information Administration (EIA) Form EIA-816, "Monthly Natural Gas Liquids Report."

**Table 28. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts,
October 1999**

(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			Total
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	
Crude Oil	44,633	2,539	47,172	66,984	12,145	23,006	102,135
Natural Gas Liquids	213	0	213	1,588	201	1,463	3,252
Pentanes Plus	0	0	0	153	132	786	1,071
Liquefied Petroleum Gases	213	0	213	1,435	69	677	2,181
Ethane	0	0	0	0	0	0	0
Propane	0	0	0	0	0	0	0
Normal Butane	183	0	183	980	20	466	1,466
Isobutane	30	0	30	455	49	211	715
Other Liquids	8,894	-22	8,872	-596	798	-340	-138
Other Hydrocarbons/Hydrogen/Oxygenates	2,404	3	2,407	777	263	113	1,153
Other Hydrocarbons/Hydrogen	0	0	0	37	0	31	68
Oxygenates	W	W	2,407	740	263	82	1,085
Fuel Ethanol	W	W	W	W	W	W	984
Methanol	W	W	W	W	W	W	W
MTBE	W	W	2,260	W	W	W	W
Other Oxygenates ^a	W	W	W	W	W	W	W
Unfinished Oils (net)	1,707	0	1,707	539	-37	-865	-363
Motor Gasoline Blend. Comp. (net)	4,856	-25	4,831	-1,923	572	412	-939
Aviation Gasoline Blend. Comp. (net)	-73	0	-73	11	0	0	11
Total Input to Refineries	53,740	2,517	56,257	67,976	13,144	24,129	105,249
Atmospheric Crude Oil Distillation							
Gross Input (daily average)	1,421	82	1,503	2,199	395	748	3,342
Operable Capacity (daily average)	1,591	100	1,691	2,473	421	725	3,619
Operable Utilization Rate (percent) ^{b,c}	89.3	82.2	88.9	88.9	93.9	103.1	92.4
Downstream Processing							
Fresh Feed Input (daily average)							
Catalytic Cracking	579	27	605	733	122	204	1,059
Catalytic Hydrocracking	40	0	40	141	0	4	145
Delayed and Fluid Coking	71	0	71	194	63	75	332
Crude Oil Qualities							
Sulfur Content, Weighted Average (percent)	0.85	1.31	0.88	1.28	2.28	0.72	1.27
API Gravity, Weighted Average (degrees)	34.23	32.85	34.15	33.19	29.53	36.31	33.46
Operable Capacity (daily average)	1,591	100	1,691	2,473	421	725	3,619
Operating	1,497	100	1,597	2,473	421	725	3,619
Idle	94	0	94	0	0	0	0
Alaskan Crude Oil Receipts	0	0	0	0	0	0	0

See footnotes at end of table.

Table 28. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, October 1999 (Continued)

(Thousand Barrels, Except Where Noted)

Commodity	PAD District III						PAD Dist.	PAD Dist.	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	IV	V	
							Rocky Mt.	West Coast	
Crude Oil	16,344	105,347	82,913	5,884	2,621	213,109	15,885	73,981	452,282
Natural Gas Liquids	1,100	3,074	1,727	202	279	6,382	614	2,443	12,904
Pentanes Plus	585	1,177	44	177	149	2,132	209	939	4,351
Liquefied Petroleum Gases	515	1,897	1,683	25	130	4,250	405	1,504	8,553
Ethane	0	0	0	0	0	0	0	0	0
Propane	0	0	0	0	0	0	0	0	0
Normal Butane	480	879	923	0	11	2,293	255	1,034	5,231
Isobutane	35	1,018	760	25	119	1,957	150	470	3,322
Other Liquids	-317	16,194	632	-123	-385	16,001	43	4,982	29,760
Other Hydrocarbons/Hydrogen/Oxygenates	60	2,698	1,020	0	33	3,811	105	3,946	11,422
Other Hydrocarbons/Hydrogen	44	393	569	0	0	1,006	4	781	1,859
Oxygenates	16	2,305	451	W	W	2,805	101	3,165	9,563
Fuel Ethanol	W	W	W	W	W	W	W	W	1,361
Methanol	W	W	W	W	W	W	W	W	78
MTBE	W	2,194	W	W	W	2,632	W	2,874	7,844
Other Oxygenates ^a	W	W	W	W	W	W	W	W	280
Unfinished Oils (net)	111	14,637	-514	-108	19	14,145	-280	1,352	16,561
Motor Gasoline Blend. Comp. (net)	-483	-1,141	126	-15	-437	-1,950	218	-316	1,844
Aviation Gasoline Blend. Comp. (net)	-5	0	0	0	0	-5	0	0	-67
Total Input to Refineries	17,127	124,615	85,272	5,963	2,515	235,492	16,542	81,406	494,946
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	531	3,354	2,722	180	85	6,872	520	2,623	14,861
Operable Capacity (daily average)	575	3,610	2,937	202	95	7,418	528	3,061	16,317
Operable Utilization Rate (percent) ^{b,c}	92.3	92.9	92.7	89.4	89.4	92.6	98.5	85.7	91.1
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	166	1,447	840	29	28	2,509	151	743	5,068
Catalytic Hydrocracking	34	250	224	0	0	508	5	417	1,115
Delayed and Fluid Coking	6	430	437	10	0	883	40	472	1,797
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.75	1.60	1.61	1.74	0.46	1.53	1.34	1.21	1.35
API Gravity, Weighted Average (degrees)	37.97	30.73	30.19	30.93	39.16	31.17	33.60	25.97	31.18
Operable Capacity (daily average)	575	3,610	2,937	202	95	7,418	528	3,061	16,317
Operating	573	3,583	2,891	195	95	7,337	528	3,038	16,118
Idle	2	27	46	7	0	82	0	23	199
Alaskan Crude Oil Receipts	0	0	0	0	16	16	0	31,807	31,823

^a Includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

^b Represents gross input divided by operable calendar day capacity.

^c See Table H2 in the Highlights Section for additional information concerning utilization rates.

W = Withheld to avoid disclosure of individual company data.

Note: • Totals may not equal sum of components due to independent rounding. • Refer to Appendix A for Refining District descriptions.

Source: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report."

Table 29. Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts, October 1999
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	573	28	601	1,973	-49	644	2,568
Ethane/Ethylene	0	0	0	0	0	0	0
Ethane	W	W	W	W	W	W	W
Ethylene	W	W	W	W	W	W	W
Propane/Propylene	1,499	43	1,542	2,367	273	653	3,293
Propane	W	W	W	2,098	W	W	2,781
Propylene	W	W	W	269	W	W	512
Normal Butane/Butylene	-708	-14	-722	-411	-306	-20	-737
Normal Butane	W	W	W	W	W	W	W
Butylene	W	W	W	W	W	W	W
Isobutane/Isobutylene	-218	-1	-219	17	-16	11	12
Isobutane	W	W	W	W	W	W	W
Isobutylene	W	W	W	W	W	W	W
Finished Motor Gasoline	29,614	960	30,574	35,930	7,466	12,755	56,151
Reformulated	19,657	0	19,657	7,114	1,424	375	8,913
Oxygenated	0	0	0	0	1,476	0	1,476
Other	9,957	960	10,917	28,816	4,566	12,380	45,762
Finished Aviation Gasoline	1	0	1	45	40	78	163
Jet Fuel	3,295	49	3,344	4,585	889	1,218	6,692
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	3,295	49	3,344	4,585	889	1,218	6,692
Commercial	3,295	34	3,329	4,494	844	1,108	6,446
Military	0	15	15	91	45	110	246
Kerosene	443	64	507	211	-13	136	334
Distillate Fuel Oil	11,831	616	12,447	16,383	3,159	7,416	26,958
0.05 percent sulfur and under	6,160	512	6,672	12,096	2,204	5,883	20,183
Greater than 0.05 percent sulfur	5,671	104	5,775	4,287	955	1,533	6,775
Residual Fuel Oil	3,485	52	3,537	1,124	221	129	1,474
Less than 0.31 percent sulfur	1,347	33	1,380	0	0	0	0
0.31 to 1.00 percent sulfur	2,077	19	2,096	363	0	0	363
Greater than 1.00 percent sulfur	61	0	61	761	221	129	1,111
Naphtha for Petrochemical Feedstock Use	398	0	398	805	0	0	805
Other Oils for Petrochemical Feedstock Use	0	0	0	601	0	44	645
Special Naphthas	32	26	58	587	0	75	662
Lubricants	325	114	439	357	0	231	588
Naphthenic	0	0	0	0	0	0	0
Paraffinic	325	114	439	357	0	231	588
Waxes	0	-7	-7	53	0	55	108
Petroleum Coke	1,327	26	1,353	2,715	907	847	4,469
Marketable	433	0	433	1,719	604	639	2,962
Catalyst	894	26	920	996	303	208	1,507
Asphalt and Road Oil	2,476	488	2,964	3,765	1,046	609	5,420
Still Gas	1,726	79	1,805	2,491	455	1,056	4,002
Miscellaneous Products	35	36	71	161	74	49	284
Fuel Use	0	0	0	0	0	0	0
Nonfuel Use	35	36	71	161	74	49	284
Total	55,561	2,531	58,092	71,786	14,195	25,342	111,323
Processing Gain(-) or Loss(+) ^a	-1,821	-14	-1,835	-3,810	-1,051	-1,213	-6,074

See footnotes at end of table.

Table 29. Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts, October 1999 (Continued)
(Thousand Barrels)

Commodity	PAD District III						PAD Dist.	PAD Dist.	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	IV	V	
							Rocky Mt.	West Coast	
Liquefied Refinery Gases	683	7,916	3,853	18	81	12,551	183	1,881	17,784
Ethane/Ethylene	1	888	12	0	0	901	0	0	901
Ethane	W	W	W	W	W	W	W	W	717
Ethylene	W	W	W	W	W	W	W	W	184
Propane/Propylene	728	7,123	3,798	104	56	11,809	269	1,450	18,363
Propane	W	3,329	2,470	W	W	6,428	W	W	11,818
Propylene	W	3,794	1,328	W	W	5,381	W	W	6,545
Normal Butane/Butylene	51	-465	-101	-78	25	-568	-53	407	-1,673
Normal Butane	W	W	W	W	W	W	W	W	-1,484
Butylene	W	W	W	W	W	W	W	W	-189
Isobutane/Isobutylene	-97	370	144	-8	0	409	-33	24	193
Isobutane	W	W	W	W	W	W	W	W	130
Isobutylene	W	W	W	W	W	W	W	W	63
Finished Motor Gasoline	9,316	59,536	39,488	1,762	1,306	111,408	8,406	40,967	247,506
Reformulated	258	18,122	4,342	0	0	22,722	0	28,721	80,013
Oxygenated	0	0	17	0	29	46	647	1,864	4,033
Other	9,058	41,414	35,129	1,762	1,277	88,640	7,759	10,382	163,460
Finished Aviation Gasoline	195	202	31	0	0	428	16	60	668
Jet Fuel	1,508	10,919	11,086	263	176	23,952	789	11,763	46,540
Naphtha-Type	4	0	0	0	0	4	0	24	28
Kerosene-Type	1,504	10,919	11,086	263	176	23,948	789	11,739	46,512
Commercial	1,232	9,207	10,795	219	0	21,453	624	10,586	42,438
Military	272	1,712	291	44	176	2,495	165	1,153	4,074
Kerosene	9	872	345	62	1	1,289	58	118	2,306
Distillate Fuel Oil	3,954	24,884	19,778	1,361	676	50,653	4,523	14,251	108,832
0.05 percent sulfur and under	2,846	19,808	9,377	689	644	33,364	3,837	11,107	75,163
Greater than 0.05 percent sulfur	1,108	5,076	10,401	672	32	17,289	686	3,144	33,669
Residual Fuel Oil	264	6,548	2,599	196	14	9,621	310	5,529	20,471
Less than 0.31 percent sulfur	122	1	327	0	0	450	68	212	2,110
0.31 to 1.00 percent sulfur	26	617	608	171	14	1,436	40	1,014	4,949
Greater than 1.00 percent sulfur	116	5,930	1,664	25	0	7,735	202	4,303	13,412
Naphtha for Petrochemical Feedstock Use	113	3,515	952	0	5	4,585	0	162	5,950
Other Oils for Petrochemical Feedstock Use	153	3,733	2,342	0	0	6,228	25	173	7,071
Special Naphthas	78	1,564	90	154	0	1,886	0	45	2,651
Lubricants	W	1,841	W	W	W	3,985	0	650	5,662
Naphthenic	W	181	W	W	W	828	0	309	1,137
Paraffinic	W	1,660	W	W	W	3,157	0	341	4,525
Waxes	0	166	107	37	0	310	122	-117	416
Petroleum Coke	272	5,850	4,723	67	37	10,949	520	4,875	22,166
Marketable	31	3,623	3,739	46	0	7,439	304	3,669	14,807
Catalyst	241	2,227	984	21	37	3,510	216	1,206	7,359
Asphalt and Road Oil	513	782	941	1,135	149	3,520	1,484	1,914	15,302
Still Gas	687	4,900	3,504	171	71	9,333	613	4,247	20,000
Miscellaneous Products	17	467	590	0	0	1,074	61	174	1,664
Fuel Use	0	0	259	0	0	259	0	-21	238
Nonfuel Use	17	467	331	0	0	815	61	195	1,426
Total	17,808	133,695	91,745	6,008	2,516	251,772	17,110	86,692	524,989
Processing Gain(-) or Loss(+) ^a	-681	-9,080	-6,473	-45	-1	-16,280	-568	-5,286	-30,043

^a Represents the arithmetic difference between input and production.
W = Withheld to avoid disclosure of individual company data.
Note: Refer to Appendix A for Refining District descriptions.
Source: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report."

Table 30. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, October 1999
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	12,328	541	12,869	8,626	1,831	2,410	12,867
Petroleum Products	56,632	2,200	58,832	37,154	8,244	11,712	57,110
Pentanes Plus	0	0	0	49	27	134	210
Liquefied Petroleum Gases	1,895	38	1,933	3,138	556	1,540	5,234
Ethane/Ethylene	0	0	0	2	0	0	2
Propane/Propylene	765	6	771	1,551	52	606	2,209
Normal Butane/Butylene	901	24	925	1,374	446	783	2,603
Isobutane/Isobutylene	229	8	237	211	58	151	420
Other Hydrocarbons/Hydrogen/Oxygenates	1,733	8	1,741	335	185	14	534
Other Hydrocarbons/Hydrogen	0	0	0	13	0	0	13
Oxygenates	W	W	1,741	322	185	14	521
Fuel Ethanol	W	W	W	W	W	W	410
Methanol	W	W	W	W	W	W	W
MTBE	W	W	1,330	W	W	W	W
Other Oxygenates ^a	W	W	W	W	W	W	W
Unfinished Oils	10,279	653	10,932	9,274	791	3,704	13,769
Naphthas and Lighter	2,147	199	2,346	2,466	244	1,188	3,898
Kerosene and Light Gas Oils	2,789	10	2,799	1,392	98	312	1,802
Heavy Gas Oils	3,835	348	4,183	3,916	441	1,086	5,443
Residuum	1,508	96	1,604	1,500	8	1,118	2,626
Motor Gasoline Blending Components	7,251	21	7,272	6,358	1,126	1,181	8,665
Aviation Gasoline Blending Components	123	0	123	25	0	0	25
Finished Motor Gasoline	9,047	348	9,395	5,239	1,320	1,736	8,295
Reformulated	5,812	0	5,812	149	0	0	149
Oxygenated	0	5	5	0	328	0	328
Other	3,235	343	3,578	5,090	992	1,736	7,818
Finished Aviation Gasoline	54	0	54	14	66	66	146
Jet Fuel	2,822	23	2,845	2,236	128	453	2,817
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	2,822	23	2,845	2,236	128	453	2,817
Kerosene	184	69	253	230	39	120	389
Distillate Fuel Oil	14,184	267	14,451	5,336	1,278	1,622	8,236
0.05 percent sulfur and under	2,056	239	2,295	3,634	620	1,153	5,407
Greater than 0.05 percent sulfur	12,128	28	12,156	1,702	658	469	2,829
Residual Fuel Oil	6,268	26	6,294	1,186	159	130	1,475
Less than 0.31 percent sulfur	1,321	20	1,341	0	0	0	0
0.31 to 1.00 percent sulfur	3,506	6	3,512	204	0	0	204
Greater than 1.00 percent sulfur	1,441	0	1,441	982	159	130	1,271
Naphtha for Petrochemical Feedstock Use	391	0	391	273	0	0	273
Other Oils for Petrochemical Feedstock Use	0	0	0	64	0	0	64
Special Naphthas	50	19	69	321	0	50	371
Lubricants	485	209	694	423	0	0	423
Waxes	0	299	299	14	0	46	60
Petroleum Coke (Marketable)	373	0	373	683	1,651	203	2,537
Asphalt and Road Oil	1,489	181	1,670	1,895	895	657	3,447
Miscellaneous Products	4	39	43	61	23	56	140
Total Stocks, All Oils	68,960	2,741	71,701	45,780	10,075	14,122	69,977

See footnotes at end of table.

**Table 30. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts,
October 1999 (Continued)**
(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	977	29,863	19,110	953	361	51,264	1,923	20,510	99,433
Petroleum Products	10,624	68,460	52,524	3,855	1,369	136,832	9,379	60,268	322,421
Pentanes Plus	98	149	6	7	15	275	21	0	506
Liquefied Petroleum Gases	2,912	2,978	5,268	25	63	11,246	451	1,953	20,817
Ethane/Ethylene	58	557	0	0	0	615	0	0	617
Propane/Propylene	1,491	1,133	497	8	4	3,133	172	118	6,403
Normal Butane/Butylene	1,100	826	4,274	8	22	6,230	217	1,475	11,450
Isobutane/Isobutylene	263	462	497	9	37	1,268	62	360	2,347
Other Hydrocarbons/Hydrogen/Oxygenates	88	1,768	592	15	10	2,473	76	1,935	6,759
Other Hydrocarbons/Hydrogen	0	0	1	0	0	1	0	4	18
Oxygenates	88	1,768	591	W	W	2,472	76	1,931	6,741
Fuel Ethanol	W	W	W	W	W	W	W	W	629
Methanol	W	W	W	W	W	W	W	W	907
MTBE	W	1,272	W	W	W	1,841	W	1,840	5,092
Other Oxygenates ^a	W	W	W	W	W	W	W	W	113
Unfinished Oils	2,516	22,203	18,117	919	501	44,256	2,507	19,233	90,697
Naphthas and Lighter	772	6,665	3,908	238	250	11,833	606	3,483	22,166
Kerosene and Light Gas Oils	371	3,646	2,560	188	78	6,843	416	4,152	16,012
Heavy Gas Oils	561	7,160	8,533	447	173	16,874	1,015	8,406	35,921
Residuum	812	4,732	3,116	46	0	8,706	470	3,192	16,598
Motor Gasoline Blending Components	1,368	7,117	4,563	94	277	13,419	1,465	6,495	37,316
Aviation Gasoline Blending Components	10	0	21	0	0	31	0	2	181
Finished Motor Gasoline	1,354	10,527	6,546	349	156	18,932	2,193	9,510	48,325
Reformulated	24	4,237	371	0	0	4,632	0	5,040	15,633
Oxygenated	0	0	0	0	0	0	97	0	430
Other	1,330	6,290	6,175	349	156	14,300	2,096	4,470	32,262
Finished Aviation Gasoline	67	196	51	0	0	314	27	295	836
Jet Fuel	410	3,804	2,348	72	24	6,658	335	4,722	17,377
Naphtha-Type	2	0	0	0	0	2	0	15	17
Kerosene-Type	408	3,804	2,348	72	24	6,656	335	4,707	17,360
Kerosene	29	486	293	21	7	836	56	79	1,613
Distillate Fuel Oil	774	9,098	5,280	602	153	15,907	1,194	6,588	46,376
0.05 percent sulfur and under	406	6,304	2,137	340	105	9,292	938	4,839	22,771
Greater than 0.05 percent sulfur	368	2,794	3,143	262	48	6,615	256	1,749	23,605
Residual Fuel Oil	225	3,545	2,618	170	8	6,566	391	4,591	19,317
Less than 0.31 percent sulfur	49	5	31	0	0	85	28	817	2,271
0.31 to 1.00 percent sulfur	0	381	295	121	8	805	121	1,799	6,441
Greater than 1.00 percent sulfur	176	3,159	2,292	49	0	5,676	242	1,975	10,605
Naphtha for Petrochemical Feedstock Use	27	618	394	0	24	1,063	0	138	1,865
Other Oils for Petrochemical Feedstock Use	107	1,642	367	0	0	2,116	0	198	2,378
Special Naphthas	74	1,269	34	105	0	1,482	6	36	1,964
Lubricants	21	1,973	2,047	811	0	4,852	0	1,052	7,021
Waxes	0	146	219	37	0	402	27	345	1,133
Petroleum Coke (Marketable)	0	385	2,901	0	0	3,286	50	1,362	7,608
Asphalt and Road Oil	532	374	411	628	131	2,076	579	1,535	9,307
Miscellaneous Products	12	182	448	0	0	642	1	199	1,025
Total Stocks, All Oils	11,601	98,323	71,634	4,808	1,730	188,096	11,302	80,778	421,854

^a Includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

W = Withheld to avoid disclosure of individual company data.

Notes: • Stocks are reported as of the last day of the month. • Refer to Appendix A for Refining District descriptions.

Source: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report."

**Table 31. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts,^a
October 1999**

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	1.2	1.1	1.2	2.9	-0.4	2.9	2.5
Finished Motor Gasoline ^b	47.8	38.7	47.3	52.6	53.1	48.6	51.8
Finished Aviation Gasoline ^c	0.2	0.0	0.2	0.1	0.3	0.4	0.1
Naphtha-Type Jet Fuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kerosene-Type Jet Fuel	7.1	1.9	6.8	6.8	7.3	5.5	6.6
Kerosene	1.0	2.5	1.0	0.3	-0.1	0.6	0.3
Distillate Fuel Oil	25.5	24.3	25.5	24.3	26.1	33.5	26.5
Residual Fuel Oil	7.5	2.0	7.2	1.7	1.8	0.6	1.4
Naphtha for Petrochemical Feedstock Use	0.9	0.0	0.8	1.2	0.0	0.0	0.8
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	0.9	0.0	0.2	0.6
Special Naphthas	0.1	1.0	0.1	0.9	0.0	0.3	0.7
Lubricants	0.7	4.5	0.9	0.5	0.0	1.0	0.6
Waxes	0.0	-0.3	0.0	0.1	0.0	0.2	0.1
Petroleum Coke	2.9	1.0	2.8	4.0	7.5	3.8	4.4
Asphalt and Road Oil	5.3	19.2	6.1	5.6	8.6	2.8	5.3
Still Gas	3.7	3.1	3.7	3.7	3.8	4.8	3.9
Miscellaneous Products	0.1	1.4	0.1	0.2	0.6	0.2	0.3
Processing Gain(-) or Loss(+) ^d	-3.9	-0.6	-3.8	-5.6	-8.7	-5.5	-6.0

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	4.2	6.6	4.7	0.3	3.1	5.5	1.2	2.5	3.8
Finished Motor Gasoline ^b	52.5	45.8	44.4	27.3	54.2	45.4	47.9	46.3	47.2
Finished Aviation Gasoline ^c	1.2	0.2	0.0	0.0	0.0	0.2	0.1	0.1	0.2
Naphtha-Type Jet Fuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kerosene-Type Jet Fuel	9.1	9.1	13.5	4.6	6.7	10.5	5.1	15.6	9.9
Kerosene	0.1	0.7	0.4	1.1	0.0	0.6	0.4	0.2	0.5
Distillate Fuel Oil	24.0	20.7	24.0	23.6	25.6	22.3	29.0	18.9	23.2
Residual Fuel Oil	1.6	5.5	3.2	3.4	0.5	4.2	2.0	7.3	4.4
Naphtha for Petrochemical Feedstock Use	0.7	2.9	1.2	0.0	0.2	2.0	0.0	0.2	1.3
Other Oils for Petrochemical Feedstock Use	0.9	3.1	2.8	0.0	0.0	2.7	0.2	0.2	1.5
Special Naphthas	0.5	1.3	0.1	2.7	0.0	0.8	0.0	0.1	0.6
Lubricants	0.3	1.5	1.6	13.5	0.0	1.8	0.0	0.9	1.2
Waxes	0.0	0.1	0.1	0.6	0.0	0.1	0.8	-0.2	0.1
Petroleum Coke	1.7	4.9	5.7	1.2	1.4	4.8	3.3	6.5	4.7
Asphalt and Road Oil	3.1	0.7	1.1	19.7	5.6	1.5	9.5	2.5	3.3
Still Gas	4.2	4.1	4.3	3.0	2.7	4.1	3.9	5.6	4.3
Miscellaneous Products	0.1	0.4	0.7	0.0	0.0	0.5	0.4	0.2	0.4
Processing Gain(-) or Loss(+) ^d	-4.1	-7.6	-7.9	-0.8	0.0	-7.2	-3.6	-7.0	-6.4

^a Based on crude oil input and net reruns of unfinished oils.

^b Based on total finished motor gasoline output minus net input of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and oxygenates.

^c Based on finished aviation gasoline output minus net input of aviation gasoline blending components.

^d Represents the difference between input and production.

Notes: • Totals may not equal sum of components due to independent rounding. • Refer to Appendix A for Refining District descriptions.

Sources: Calculated from data on Tables 28 and 29.

Table 32. Imports of Residual Fuel Oil by Sulfur Content and by PAD District and State of Entry, October 1999
(Thousand Barrels)

PAD District and State of Entry	Residual Fuel Oil			
	Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District I	197	831	2,690	3,718
Delaware	0	0	168	168
Florida	0	0	649	649
Georgia	0	0	142	142
Maine	16	0	0	16
Maryland	0	80	158	238
New Jersey	0	438	763	1,201
New York	0	258	17	275
North Carolina	0	0	338	338
Pennsylvania	0	0	139	139
South Carolina	0	55	168	223
Virginia	181	0	148	329
PAD District III	0	577	1,666	2,243
Louisiana	0	0	478	478
Texas	0	577	1,188	1,765
PAD District V	0	0	579	579
California	0	0	350	350
Oregon	0	0	229	229
U.S. Total	197	1,408	4,935	6,540

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 33. Imports of Crude Oil and Petroleum Products by PAD District,
October 1999**
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						U.S. Total	Daily Average
	I	II	III	IV	V			
Crude Oil^{a,b}	46,401	43,633	147,569	4,581	19,424	261,608	8,439	
Natural Gas Liquids	410	4,403	2,269	515	8	7,605	245	
Pentanes Plus	0	52	1,782	129	0	1,963	63	
Liquefied Petroleum Gases	410	4,351	487	386	8	5,642	182	
Ethane	0	446	407	0	0	853	28	
Ethylene	0	9	0	0	0	9	(s)	
Propane	302	3,196	80	171	8	3,757	121	
Propylene	0	127	0	0	0	127	4	
Normal Butane	35	221	0	197	0	453	15	
Butylene	0	0	0	0	0	0	0	
Isobutane	73	352	0	18	0	443	14	
Isobutylene	0	0	0	0	0	0	0	
Other Liquids	7,442	1	8,908	0	1,491	17,842	576	
Other Hydrocarbons/Hydrogen/Oxygenates	70	0	0	0	1,447	1,517	49	
Other Hydrocarbons/Hydrogen	23	0	0	0	0	23	1	
Oxygenates	47	0	0	0	1,447	1,494	48	
Fuel Ethanol	0	0	0	0	7	7	(s)	
MTBE	47	0	0	0	1,440	1,487	48	
Other Oxygenates ^c	0	0	0	0	0	0	0	
Unfinished Oils ^a	492	1	8,850	0	0	9,343	301	
Naphthas and Lighter	50	1	1,531	0	0	1,582	51	
Kerosene and Light Gas Oils	0	0	0	0	0	0	0	
Heavy Gas Oils	442	0	3,744	0	0	4,186	135	
Residuum	0	0	3,575	0	0	3,575	115	
Motor Gasoline Blending Components	6,880	0	58	0	44	6,982	225	
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	
Finished Petroleum Products	24,161	356	9,584	200	1,912	36,213	1,168	
Finished Motor Gasoline	11,536	55	0	14	8	11,613	375	
Reformulated	6,230	0	0	0	0	6,230	201	
Oxygenated	0	0	0	0	0	0	0	
Other	5,306	55	0	14	8	5,383	174	
Finished Aviation Gasoline	0	1	0	5	0	6	(s)	
Jet Fuel	2,256	0	0	0	761	3,017	97	
Naphtha-Type	0	0	0	0	0	0	0	
Kerosene-Type	2,256	0	0	0	761	3,017	97	
Bonded Aircraft Fuel	990	0	0	0	363	1,353	44	
Other	1,266	0	0	0	398	1,664	54	
Kerosene	41	0	0	0	0	41	1	
Distillate Fuel Oil	5,179	190	359	181	514	6,423	207	
Bonded Ship Bunkers	0	0	0	0	22	22	1	
0.05 percent sulfur and under	0	0	0	0	22	22	1	
Greater than 0.05 percent sulfur	0	0	0	0	0	0	0	
Other	5,179	190	359	181	492	6,401	206	
0.05 percent sulfur and under	2,696	163	212	100	176	3,347	108	
Greater than 0.05 percent sulfur	2,483	27	147	81	316	3,054	99	
Residual Fuel Oil	3,718	0	2,243	0	579	6,540	211	
Bonded Ship Bunkers	0	0	0	0	0	0	0	
Less than 0.31 percent sulfur	0	0	0	0	0	0	0	
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0	
Greater than 1.00 percent sulfur	0	0	0	0	0	0	0	
Other	3,718	0	2,243	0	579	6,540	211	
Less than 0.31 percent sulfur	197	0	0	0	0	197	6	
0.31 to 1.00 percent sulfur	831	0	577	0	0	1,408	45	
Greater than 1.00 percent sulfur	2,690	0	1,666	0	579	4,935	159	
Naphtha for Petrochemical Feedstock Use	207	40	2,753	0	38	3,038	98	
Other Oils for Petrochemical Feedstock Use	0	0	4,078	0	0	4,078	132	
Special Naphthas	0	0	37	0	0	37	1	
Lubricants	328	20	15	0	0	363	12	
Waxes	34	8	35	0	6	83	3	
Petroleum Coke	0	0	0	0	6	6	(s)	
Asphalt and Road Oil	862	41	60	0	0	963	31	
Miscellaneous Products	0	1	4	0	0	5	(s)	
Total	78,414	48,393	168,330	5,296	22,835	323,268	10,428	

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.

^c Includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

(s) = Less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

Table 34. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January-October 1999
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil^{a,b}	450,179	474,000	1,487,840	46,072	179,970	2,638,061	8,678
Natural Gas Liquids	5,663	36,811	16,647	2,977	123	62,221	205
Pentanes Plus	0	335	10,632	1,003	0	11,970	39
Liquefied Petroleum Gases	5,663	36,476	6,015	1,974	123	50,251	165
Ethane	0	3,552	841	0	0	4,393	14
Ethylene	0	3,261	0	0	0	3,261	11
Propane	5,342	23,226	2,838	1,486	123	33,015	109
Propylene	0	2,083	0	0	0	2,083	7
Normal Butane	243	2,194	1,418	403	0	4,258	14
Butylene	0	0	0	0	0	0	0
Isobutane	78	2,160	918	85	0	3,241	11
Isobutylene	0	0	0	0	0	0	0
Other Liquids	73,942	3	67,654	0	27,973	169,572	558
Other Hydrocarbons/Hydrogen/Oxygenates	5,068	0	0	0	15,246	20,314	67
Other Hydrocarbons/Hydrogen	45	0	0	0	0	45	(s)
Oxygenates	5,023	0	0	0	15,246	20,269	67
Fuel Ethanol	0	0	0	0	72	72	(s)
MTBE	5,023	0	0	0	15,174	20,197	66
Other Oxygenates ^c	0	0	0	0	0	0	0
Unfinished Oils ^a	16,302	3	65,496	0	9,982	91,783	302
Naphthas and Lighter	2,182	3	11,208	0	70	13,463	44
Kerosene and Light Gas Oils	75	0	3,779	0	55	3,909	13
Heavy Gas Oils	10,744	0	26,076	0	578	37,398	123
Residuum	3,301	0	24,433	0	9,279	37,013	122
Motor Gasoline Blending Components	52,572	0	2,158	0	2,745	57,475	189
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	248,791	3,888	88,289	2,319	34,236	377,523	1,242
Finished Motor Gasoline	102,358	665	767	115	9,113	113,018	372
Reformulated	54,199	0	267	0	3,014	57,480	189
Oxygenated	0	0	0	0	0	0	0
Other	48,159	665	500	115	6,099	55,538	183
Finished Aviation Gasoline	3	16	0	40	0	59	(s)
Jet Fuel	19,271	4	2	0	18,395	37,672	124
Naphtha-Type	0	4	0	0	0	4	(s)
Kerosene-Type	19,271	0	2	0	18,395	37,668	124
Bonded Aircraft Fuel	10,455	0	0	0	9,766	20,221	67
Other	8,816	0	2	0	8,629	17,447	57
Kerosene	357	1	0	0	0	358	1
Distillate Fuel Oil	56,016	1,565	1,902	2,107	3,637	65,227	215
Bonded Ship Bunkers	0	3	0	5	252	260	1
0.05 percent sulfur and under	0	3	0	5	156	164	1
Greater than 0.05 percent sulfur	0	0	0	0	96	96	(s)
Other	56,016	1,562	1,902	2,102	3,385	64,967	214
0.05 percent sulfur and under	29,770	1,100	212	1,050	1,797	33,929	112
Greater than 0.05 percent sulfur	26,246	462	1,690	1,052	1,588	31,038	102
Residual Fuel Oil	54,694	440	16,077	0	2,551	73,762	243
Bonded Ship Bunkers	0	0	0	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	0	0	0	0	0	0
Other	54,694	440	16,077	0	2,551	73,762	243
Less than 0.31 percent sulfur	11,951	397	975	0	1,161	14,484	48
0.31 to 1.00 percent sulfur	10,071	0	4,574	0	0	14,645	48
Greater than 1.00 percent sulfur	32,672	43	10,528	0	1,390	44,633	147
Naphtha for Petrochemical Feedstock Use	1,766	423	19,328	0	145	21,662	71
Other Oils for Petrochemical Feedstock Use	532	0	48,629	0	0	49,161	162
Special Naphthas	411	272	765	0	0	1,448	5
Lubricants	2,829	295	96	0	0	3,220	11
Waxes	287	68	126	0	133	614	2
Petroleum Coke	0	0	0	0	262	262	1
Asphalt and Road Oil	10,253	128	555	57	0	10,993	36
Miscellaneous Products	14	11	42	0	0	67	(s)
Total	778,575	514,702	1,660,430	51,368	242,302	3,247,377	10,682

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.
^c Includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).
(s) = Less than 500 barrels per day.
Note: Totals may not equal sum of components due to independent rounding.
Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 35. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,^a
October 1999**
(Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphtas
Arab OPEC	70,071	0	1,146	305	1,653	0	197	652	0	0
Algeria	0	0	1,146	0	0	0	0	652	0	0
Iraq	26,883	0	0	0	0	0	0	0	0	0
Kuwait	6,357	0	0	0	0	0	0	0	0	0
Saudi Arabia	36,831	0	0	305	1,653	0	197	0	0	0
Other OPEC	50,892	0	2,466	1,620	1,732	1,254	1,212	965	0	0
Indonesia	2,460	0	581	0	0	0	0	0	0	0
Nigeria	16,170	0	523	0	0	0	147	0	0	0
Venezuela	32,262	0	1,362	1,620	1,732	1,254	1,065	965	0	0
Non OPEC	140,645	5,642	5,731	5,057	8,228	1,763	5,014	4,923	41	37
Angola	13,774	0	0	0	0	0	0	0	0	0
Argentina	890	0	0	854	290	0	0	0	0	0
Belgium	0	0	683	762	305	0	0	0	0	0
Brazil	0	0	0	400	43	0	0	0	0	37
Brunei	3,054	0	0	0	0	0	0	0	0	0
Canada	37,751	5,642	91	271	1,718	267	2,376	367	41	0
Colombia	13,381	0	0	0	0	0	0	0	0	0
Congo (Brazzaville)	921	0	0	0	0	0	0	0	0	0
Congo (Kinshasa) ^d	200	0	0	0	0	0	0	0	0	0
Ecuador	5,039	0	0	0	0	0	0	0	0	0
Egypt	1,150	0	0	0	0	0	0	0	0	0
France	0	0	514	70	282	0	0	0	0	0
Gabon	5,757	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	204	0	0	0	212	577	0	0
Guatemala	664	0	0	0	0	0	0	0	0	0
Italy	0	0	50	182	0	0	0	0	0	0
Japan	0	0	0	0	0	0	316	0	0	0
Korea, Republic of	0	0	0	44	0	238	0	0	0	0
Malaysia	1,128	0	0	0	0	96	0	0	0	0
Mexico	34,849	0	0	0	0	0	0	567	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Netherlands Antilles	0	0	693	0	0	0	91	0	0	0
Norway	9,037	0	340	0	251	0	0	0	0	0
Peru	0	0	0	0	0	0	0	350	0	0
Portugal	0	0	0	0	497	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Romania	0	0	0	0	276	0	0	0	0	0
Russia	0	0	1,617	0	0	0	0	1,247	0	0
Spain	0	0	0	493	5	0	0	193	0	0
Sweden	0	0	0	0	0	0	0	181	0	0
Trinidad and Tobago	2,042	0	0	109	159	0	0	0	0	0
Turkey	0	0	73	0	0	0	0	0	0	0
United Kingdom	8,279	0	703	1,437	0	0	0	0	0	0
Virgin Islands	0	0	0	0	4,402	1,162	2,019	1,215	0	0
Other	2,729	0	763	435	0	0	0	226	0	0
Total	261,608	5,642	9,343	6,982	11,613	3,017	6,423	6,540	41	37
Persian Gulf^e	70,071	0	0	305	1,653	0	197	0	0	0

See footnotes at end of table.

**Table 35. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,^a
October 1999 (Continued)**
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	0	2,094	0	0	2,600	8,647	78,718	2,260	279	2,539
Algeria	0	2,094	0	0	1,782	5,674	5,674	0	183	183
Iraq	0	0	0	0	0	0	26,883	867	0	867
Kuwait	0	0	0	0	0	0	6,357	205	0	205
Saudi Arabia	0	0	0	0	818	2,973	39,804	1,188	96	1,284
Other OPEC	459	0	15	596	0	10,319	61,211	1,642	333	1,975
Indonesia	0	0	0	0	0	581	3,041	79	19	98
Nigeria	0	0	0	0	0	670	16,840	522	22	543
Venezuela	459	0	15	596	0	9,068	41,330	1,041	293	1,333
Non OPEC	2,579	1,984	348	367	980	42,694	183,339	4,537	1,377	5,914
Angola	0	0	0	0	0	0	13,774	444	0	444
Argentina	340	0	0	0	0	1,484	2,374	29	48	77
Belgium	0	0	0	0	0	1,750	1,750	0	56	56
Brazil	0	0	0	0	70	550	550	0	18	18
Brunei	0	0	0	0	0	0	3,054	99	0	99
Canada	80	0	131	277	700	11,961	49,712	1,218	386	1,604
Colombia	0	0	0	0	0	0	13,381	432	0	432
Congo (Brazzaville)	0	0	0	0	0	0	921	30	0	30
Congo (Kinshasa) ^d	0	0	0	0	0	0	200	6	0	6
Ecuador	0	0	0	0	0	0	5,039	163	0	163
Egypt	0	0	0	0	0	0	1,150	37	0	37
France	0	0	0	0	0	866	866	0	28	28
Gabon	0	0	0	0	0	0	5,757	186	0	186
Germany, FR	0	0	0	0	2	995	995	0	32	32
Guatemala	0	0	0	0	0	0	664	21	0	21
Italy	0	0	0	0	0	232	232	0	7	7
Japan	0	0	0	0	8	324	324	0	10	10
Korea, Republic of	38	0	0	0	152	472	472	0	15	15
Malaysia	0	0	0	0	0	96	1,224	36	3	39
Mexico	570	621	0	90	5	1,853	36,702	1,124	60	1,184
Netherlands	514	0	0	0	0	514	514	0	17	17
Netherlands Antilles	307	419	0	0	0	1,510	1,510	0	49	49
Norway	0	944	0	0	0	1,535	10,572	292	50	341
Peru	0	0	0	0	0	350	350	0	11	11
Portugal	0	0	0	0	0	497	497	0	16	16
Puerto Rico	198	0	217	0	0	415	415	0	13	13
Romania	0	0	0	0	0	276	276	0	9	9
Russia	532	0	0	0	0	3,396	3,396	0	110	110
Spain	0	0	0	0	0	691	691	0	22	22
Sweden	0	0	0	0	0	181	181	0	6	6
Trinidad and Tobago	0	0	0	0	0	268	2,310	66	9	75
Turkey	0	0	0	0	0	73	73	0	2	2
United Kingdom	0	0	0	0	33	2,173	10,452	267	70	337
Virgin Islands	0	0	0	0	0	8,798	8,798	0	284	284
Other	0	0	0	0	10	1,434	4,163	88	46	134
Total	3,038	4,078	363	963	3,580	61,660	323,268	8,439	1,989	10,428
Persian Gulf^e	0	0	0	0	818	2,973	73,044	2,260	96	2,356

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d Formerly Zaire.

^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 36. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1999**
(Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphtas
Arab OPEC	4,621	0	0	305	1,653	0	197	652	0	0
Algeria	0	0	0	0	0	0	0	652	0	0
Iraq	512	0	0	0	0	0	0	0	0	0
Saudi Arabia	4,109	0	0	305	1,653	0	197	0	0	0
Other OPEC	10,026	0	0	1,620	1,732	990	1,065	965	0	0
Nigeria	6,105	0	0	0	0	0	0	0	0	0
Venezuela	3,921	0	0	1,620	1,732	990	1,065	965	0	0
Non OPEC	31,754	410	492	4,955	8,151	1,266	3,917	2,101	41	0
Angola	9,210	0	0	0	0	0	0	0	0	0
Argentina	0	0	0	854	290	0	0	0	0	0
Belgium	0	0	0	762	305	0	0	0	0	0
Brazil	0	0	0	342	43	0	0	0	0	0
Canada	5,404	410	0	271	1,641	104	1,807	367	41	0
Colombia	3,377	0	0	0	0	0	0	0	0	0
Congo (Kinshasa) ^d	200	0	0	0	0	0	0	0	0	0
Egypt	633	0	0	0	0	0	0	0	0	0
France	0	0	0	70	282	0	0	0	0	0
Gabon	3,686	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	0	0	0	0	0	0	0	0
Italy	0	0	50	182	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Mexico	449	0	0	0	0	0	0	338	0	0
Netherlands Antilles	0	0	0	0	0	0	91	0	0	0
Norway	5,803	0	0	0	251	0	0	0	0	0
Portugal	0	0	0	0	497	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Romania	0	0	0	0	276	0	0	0	0	0
Spain	0	0	0	493	5	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	181	0	0
Trinidad and Tobago	0	0	0	109	159	0	0	0	0	0
United Kingdom	2,427	0	442	1,437	0	0	0	0	0	0
Virgin Islands	0	0	0	0	4,402	1,162	2,019	1,215	0	0
Other	565	0	0	435	0	0	0	0	0	0
Total	46,401	410	492	6,880	11,536	2,256	5,179	3,718	41	0
Persian Gulf^e	4,621	0	0	305	1,653	0	197	0	0	0

See footnotes at end of table.

**Table 36. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1999 (Continued)**
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	0	0	0	0	0	2,807	7,428	149	91	240
Algeria	0	0	0	0	0	652	652	0	21	21
Iraq	0	0	0	0	0	0	512	17	0	17
Saudi Arabia	0	0	0	0	0	2,155	6,264	133	70	202
Other OPEC	0	0	0	596	0	6,968	16,994	323	225	548
Nigeria	0	0	0	0	0	0	6,105	197	0	197
Venezuela	0	0	0	596	0	6,968	10,889	126	225	351
Non OPEC	207	0	328	266	104	22,238	53,992	1,024	717	1,742
Angola	0	0	0	0	0	0	9,210	297	0	297
Argentina	0	0	0	0	0	1,144	1,144	0	37	37
Belgium	0	0	0	0	0	1,067	1,067	0	34	34
Brazil	0	0	0	0	70	455	455	0	15	15
Canada	9	0	111	236	23	5,020	10,424	174	162	336
Colombia	0	0	0	0	0	0	3,377	109	0	109
Congo (Kinshasa) ^d	0	0	0	0	0	0	200	6	0	6
Egypt	0	0	0	0	0	0	633	20	0	20
France	0	0	0	0	0	352	352	0	11	11
Gabon	0	0	0	0	0	0	3,686	119	0	119
Germany, FR	0	0	0	0	2	2	2	0	(s)	(s)
Italy	0	0	0	0	0	232	232	0	7	7
Japan	0	0	0	0	3	3	3	0	(s)	(s)
Mexico	0	0	0	30	0	368	817	14	12	26
Netherlands Antilles	0	0	0	0	0	91	91	0	3	3
Norway	0	0	0	0	0	251	6,054	187	8	195
Portugal	0	0	0	0	0	497	497	0	16	16
Puerto Rico	198	0	217	0	0	415	415	0	13	13
Romania	0	0	0	0	0	276	276	0	9	9
Spain	0	0	0	0	0	498	498	0	16	16
Sweden	0	0	0	0	0	181	181	0	6	6
Trinidad and Tobago	0	0	0	0	0	268	268	0	9	9
United Kingdom	0	0	0	0	0	1,879	4,306	78	61	139
Virgin Islands	0	0	0	0	0	8,798	8,798	0	284	284
Other	0	0	0	0	6	441	1,006	18	14	32
Total	207	0	328	862	104	32,013	78,414	1,497	1,033	2,529
Persian Gulf^e	0	0	0	0	0	2,155	6,776	149	70	219

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.
^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.
^d Formerly Zaire.
^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.
(s) = Less than 500 barrels per day.
Note: Totals may not equal sum of components due to independent rounding.
Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 37. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1999
(Thousand Barrels)**

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	7,867	0	0	0	0	0	0	0	0	0
Iraq	2,460	0	0	0	0	0	0	0	0	0
Kuwait	897	0	0	0	0	0	0	0	0	0
Saudi Arabia	4,510	0	0	0	0	0	0	0	0	0
Other OPEC	7,614	0	0	0	0	0	0	0	0	0
Nigeria	4,179	0	0	0	0	0	0	0	0	0
Venezuela	3,435	0	0	0	0	0	0	0	0	0
Non OPEC	28,152	4,351	1	0	55	0	190	0	0	0
Canada	25,741	4,351	1	0	55	0	190	0	0	0
Colombia	1,040	0	0	0	0	0	0	0	0	0
Mexico	783	0	0	0	0	0	0	0	0	0
Norway	588	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Total	43,633	4,351	1	0	55	0	190	0	0	0
Persian Gulf^e	7,867	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

**Table 37. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1999 (Continued)**
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	0	0	0	0	0	0	7,867	254	0	254
Iraq	0	0	0	0	0	0	2,460	79	0	79
Kuwait	0	0	0	0	0	0	897	29	0	29
Saudi Arabia	0	0	0	0	0	0	4,510	145	0	145
Other OPEC	0	0	0	0	0	0	7,614	246	0	246
Nigeria	0	0	0	0	0	0	4,179	135	0	135
Venezuela	0	0	0	0	0	0	3,435	111	0	111
Non OPEC	40	0	20	41	62	4,760	32,912	908	154	1,062
Canada	40	0	20	41	60	4,758	30,499	830	153	984
Colombia	0	0	0	0	0	0	1,040	34	0	34
Mexico	0	0	0	0	0	0	783	25	0	25
Norway	0	0	0	0	0	0	588	19	0	19
Other	0	0	0	0	2	2	2	0	(s)	(s)
Total	40	0	20	41	62	4,760	48,393	1,408	154	1,561
Persian Gulf^e	0	0	0	0	0	0	7,867	254	0	254

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d Formerly Zaire.

^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 38. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1999
(Thousand Barrels)**

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	52,210	0	1,146	0	0	0	0	0	0	0
Algeria	0	0	1,146	0	0	0	0	0	0	0
Iraq	18,663	0	0	0	0	0	0	0	0	0
Kuwait	5,460	0	0	0	0	0	0	0	0	0
Saudi Arabia	28,087	0	0	0	0	0	0	0	0	0
Other OPEC	30,792	0	2,466	0	0	0	147	0	0	0
Indonesia	0	0	581	0	0	0	0	0	0	0
Nigeria	5,886	0	523	0	0	0	147	0	0	0
Venezuela	24,906	0	1,362	0	0	0	0	0	0	0
Non OPEC	64,567	487	5,238	58	0	0	212	2,243	0	37
Angola	4,564	0	0	0	0	0	0	0	0	0
Argentina	890	0	0	0	0	0	0	0	0	0
Belgium	0	0	683	0	0	0	0	0	0	0
Brazil	0	0	0	58	0	0	0	0	0	37
Brunei	1,326	0	0	0	0	0	0	0	0	0
Canada	0	487	90	0	0	0	0	0	0	0
Colombia	8,964	0	0	0	0	0	0	0	0	0
Congo (Brazzaville)	921	0	0	0	0	0	0	0	0	0
Egypt	517	0	0	0	0	0	0	0	0	0
France	0	0	514	0	0	0	0	0	0	0
Gabon	2,071	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	204	0	0	0	212	577	0	0
Guatemala	664	0	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Malaysia	416	0	0	0	0	0	0	0	0	0
Mexico	32,822	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Netherlands Antilles	0	0	693	0	0	0	0	0	0	0
Norway	2,646	0	340	0	0	0	0	0	0	0
Russia	0	0	1,617	0	0	0	0	1,247	0	0
Spain	0	0	0	0	0	0	0	193	0	0
Trinidad and Tobago	2,042	0	0	0	0	0	0	0	0	0
Turkey	0	0	73	0	0	0	0	0	0	0
United Kingdom	5,852	0	261	0	0	0	0	0	0	0
Other	872	0	763	0	0	0	0	226	0	0
Total	147,569	487	8,850	58	0	0	359	2,243	0	37
Persian Gulf^e	52,210	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

**Table 38. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1999 (Continued)
(Thousand Barrels)**

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	0	2,094	0	0	1,782	5,022	57,232	1,684	162	1,846
Algeria	0	2,094	0	0	1,782	5,022	5,022	0	162	162
Iraq	0	0	0	0	0	0	18,663	602	0	602
Kuwait	0	0	0	0	0	0	5,460	176	0	176
Saudi Arabia	0	0	0	0	0	0	28,087	906	0	906
Other OPEC	459	0	15	0	0	3,087	33,879	993	100	1,093
Indonesia	0	0	0	0	0	581	581	0	19	19
Nigeria	0	0	0	0	0	670	6,556	190	22	211
Venezuela	459	0	15	0	0	1,836	26,742	803	59	863
Non OPEC	2,294	1,984	0	60	39	12,652	77,219	2,083	408	2,491
Angola	0	0	0	0	0	0	4,564	147	0	147
Argentina	340	0	0	0	0	340	1,230	29	11	40
Belgium	0	0	0	0	0	683	683	0	22	22
Brazil	0	0	0	0	0	95	95	0	3	3
Brunei	0	0	0	0	0	0	1,326	43	0	43
Canada	31	0	0	0	0	608	608	0	20	20
Colombia	0	0	0	0	0	0	8,964	289	0	289
Congo (Brazzaville)	0	0	0	0	0	0	921	30	0	30
Egypt	0	0	0	0	0	0	517	17	0	17
France	0	0	0	0	0	514	514	0	17	17
Gabon	0	0	0	0	0	0	2,071	67	0	67
Germany, FR	0	0	0	0	0	993	993	0	32	32
Guatemala	0	0	0	0	0	0	664	21	0	21
Japan	0	0	0	0	4	4	4	0	(s)	(s)
Malaysia	0	0	0	0	0	0	416	13	0	13
Mexico	570	621	0	60	0	1,251	34,073	1,059	40	1,099
Netherlands	514	0	0	0	0	514	514	0	17	17
Netherlands Antilles	307	419	0	0	0	1,419	1,419	0	46	46
Norway	0	944	0	0	0	1,284	3,930	85	41	127
Russia	532	0	0	0	0	3,396	3,396	0	110	110
Spain	0	0	0	0	0	193	193	0	6	6
Trinidad and Tobago	0	0	0	0	0	0	2,042	66	0	66
Turkey	0	0	0	0	0	73	73	0	2	2
United Kingdom	0	0	0	0	33	294	6,146	189	9	198
Other	0	0	0	0	2	991	1,863	28	32	60
Total	2,753	4,078	15	60	1,821	20,761	168,330	4,760	670	5,430
Persian Gulf^e	0	0	0	0	0	0	52,210	1,684	0	1,684

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d Formerly Zaire.

^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 39. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1999
(Thousand Barrels)**

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
PAD District IV										
Non OPEC	4,581	386	0	0	14	0	181	0	0	0
Canada	4,581	386	0	0	14	0	181	0	0	0
Total	4,581	386	0	0	14	0	181	0	0	0
PAD District V										
Arab OPEC	5,373	0	0	0	0	0	0	0	0	0
Iraq	5,248	0	0	0	0	0	0	0	0	0
Saudi Arabia	125	0	0	0	0	0	0	0	0	0
Other OPEC	2,460	0	0	0	0	264	0	0	0	0
Indonesia	2,460	0	0	0	0	0	0	0	0	0
Venezuela	0	0	0	0	0	264	0	0	0	0
Non OPEC	11,591	8	0	44	8	497	514	579	0	0
Brunei	1,728	0	0	0	0	0	0	0	0	0
Canada	2,025	8	0	0	8	163	198	0	0	0
Ecuador	5,039	0	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	316	0	0	0
Korea, Republic of	0	0	0	44	0	238	0	0	0	0
Malaysia	712	0	0	0	0	96	0	0	0	0
Mexico	795	0	0	0	0	0	0	229	0	0
Peru	0	0	0	0	0	0	0	350	0	0
Other	1,292	0	0	0	0	0	0	0	0	0
Total	19,424	8	0	44	8	761	514	579	0	0
Persian Gulf^e	5,373	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

**Table 39. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1999 (Continued)**
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
PAD District IV										
Non OPEC	0	0	0	0	134	715	5,296	148	23	171
Canada	0	0	0	0	134	715	5,296	148	23	171
Total	0	0	0	0	134	715	5,296	148	23	171
PAD District V										
Arab OPEC	0	0	0	0	818	818	6,191	173	26	200
Iraq	0	0	0	0	0	0	5,248	169	0	169
Saudi Arabia	0	0	0	0	818	818	943	4	26	30
Other OPEC	0	0	0	0	0	264	2,724	79	9	88
Indonesia	0	0	0	0	0	0	2,460	79	0	79
Venezuela	0	0	0	0	0	264	264	0	9	9
Non OPEC	38	0	0	0	641	2,329	13,920	374	75	449
Brunei	0	0	0	0	0	0	1,728	56	0	56
Canada	0	0	0	0	483	860	2,885	65	28	93
Ecuador	0	0	0	0	0	0	5,039	163	0	163
Japan	0	0	0	0	1	317	317	0	10	10
Korea, Republic of	38	0	0	0	152	472	472	0	15	15
Malaysia	0	0	0	0	0	96	808	23	3	26
Mexico	0	0	0	0	5	234	1,029	26	8	33
Peru	0	0	0	0	0	350	350	0	11	11
Other	0	0	0	0	0	0	1,292	42	0	42
Total	38	0	0	0	1,459	3,411	22,835	627	110	737
Persian Gulf^e	0	0	0	0	818	818	6,191	173	26	200

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d Formerly Zaire.

^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

Table 40. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,^a January-October 1999
(Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	719,788	2,979	15,465	2,460	12,778	779	3,319	13,244	0	0
Algeria	8,354	2,979	10,734	447	86	0	1,248	13,179	0	0
Iraq	216,508	0	0	0	0	0	0	0	0	0
Kuwait	77,660	0	0	0	0	200	0	0	0	0
Qatar	0	0	1,908	0	0	0	0	0	0	0
Saudi Arabia	417,266	0	2,240	1,850	12,692	579	2,071	65	0	0
United Arab Emirates	0	0	583	163	0	0	0	0	0	0
Other OPEC	570,788	2,026	24,258	9,729	18,300	9,022	14,624	14,539	0	0
Indonesia	19,250	0	1,711	0	0	0	0	850	0	0
Nigeria	197,148	20	7,217	202	11	0	540	0	0	0
Venezuela	354,390	2,006	15,330	9,527	18,289	9,022	14,084	13,689	0	0
Non OPEC	1,347,485	45,246	52,060	45,286	81,940	27,871	47,284	45,979	358	1,448
Angola	107,401	0	0	0	0	689	0	0	0	0
Argentina	25,754	0	601	3,213	1,898	0	0	150	0	0
Australia	10,084	0	0	160	455	69	393	0	0	0
Bahama Islands	0	0	368	0	443	0	0	697	0	0
Belgium	0	0	4,823	3,748	1,519	0	462	109	0	0
Benin	202	0	0	0	0	0	0	0	0	0
Brazil	0	0	350	1,845	1,936	0	0	577	0	435
Brunei	15,974	0	0	0	0	0	0	0	0	0
Cameroon	1,211	0	0	0	0	0	0	0	0	0
Canada	350,324	41,948	1,713	912	16,127	1,546	20,561	5,276	358	764
China, People's Republic of	4,763	0	42	1,715	642	262	0	0	0	0
Colombia	140,290	0	431	293	0	552	0	1,151	0	0
Congo (Brazzaville)	13,032	0	0	0	0	0	0	0	0	0
Congo (Kinshasa) ^d	900	0	0	0	0	0	0	0	0	0
Ecuador	32,236	0	0	0	0	0	0	0	0	0
Egypt	7,044	0	0	267	0	0	0	0	0	0
France	0	0	2,704	1,793	1,128	0	0	0	0	0
Gabon	45,272	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	2,388	1,364	745	0	212	3,065	0	0
Greece	0	0	144	0	0	0	0	0	0	0
Guatemala	6,518	0	262	0	0	0	0	0	0	0
Ireland	0	0	556	0	0	0	0	0	0	0
Italy	0	0	229	1,537	753	0	0	0	0	161
Ivory Coast	0	0	292	0	0	0	0	0	0	0
Japan	0	0	70	0	689	1,461	706	0	0	0
Korea, Republic of	0	0	0	719	876	5,345	0	0	0	43
Malaysia	7,004	0	2,055	0	0	419	232	0	0	0
Mexico	379,937	0	3,501	1,570	0	861	0	3,859	0	0
Netherlands	0	0	976	2,980	1,936	0	0	623	0	0
Netherlands Antilles	0	0	8,886	0	51	4,648	503	3,879	0	0
Norway	75,704	2,067	2,558	35	1,163	0	0	311	0	0
Peru	9,227	0	0	0	0	0	0	563	0	0
Portugal	0	0	0	271	3,649	0	0	345	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Romania	0	0	0	471	276	0	0	0	0	0
Russia	3,551	0	6,717	1,536	304	156	616	7,339	0	0
Singapore	0	0	1,653	527	1,022	3,045	202	0	0	0
Spain	0	0	110	1,049	798	0	0	193	0	0
Sweden	0	0	933	0	19	0	0	506	0	0
Syria	109	0	232	0	0	0	0	0	0	0
Thailand	0	0	0	91	241	294	0	0	0	0
Trinidad and Tobago	11,496	0	0	1,190	159	0	663	2,237	0	0
Turkey	0	0	217	0	0	0	0	0	0	0
United Kingdom	88,912	1,231	3,010	12,348	3,396	0	432	2,093	0	45
Virgin Islands	0	0	3,060	573	37,849	8,125	22,114	11,848	0	0
Yemen	0	0	541	0	0	0	0	0	0	0
Other	10,540	0	2,638	5,079	3,866	399	188	1,158	0	0
Total	2,638,061	50,251	91,783	57,475	113,018	37,672	65,227	73,762	358	1,448
Persian Gulf^e	711,434	0	4,731	2,013	12,692	779	2,071	65	0	0

See footnotes at end of table.

Table 40. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,^a January-October 1999 (Continued)
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	1,760	30,022	0	0	19,636	102,442	822,230	2,368	337	2,705
Algeria	1,760	28,888	0	0	10,632	69,953	78,307	27	230	258
Iraq	0	0	0	0	0	0	216,508	712	0	712
Kuwait	0	0	0	0	0	200	77,860	255	1	256
Qatar	0	1,038	0	0	0	2,946	2,946	0	10	10
Saudi Arabia	0	0	0	0	9,004	28,501	445,767	1,373	94	1,466
United Arab Emirates	0	96	0	0	0	842	842	0	3	3
Other OPEC	3,730	2,202	15	7,736	1,239	107,420	678,208	1,878	353	2,231
Indonesia	0	263	0	0	8	2,832	22,082	63	9	73
Nigeria	94	0	0	0	0	8,084	205,232	649	27	675
Venezuela	3,636	1,939	15	7,736	1,231	96,504	450,894	1,166	317	1,483
Non OPEC	16,172	16,937	3,205	3,257	12,411	399,454	1,746,939	4,433	1,314	5,747
Angola	0	225	0	0	0	914	108,315	353	3	356
Argentina	340	0	0	0	0	6,202	31,956	85	20	105
Australia	0	2,729	0	0	0	3,806	13,890	33	13	46
Bahama Islands	0	0	0	0	0	1,508	1,508	0	5	5
Belgium	21	0	0	0	0	10,682	10,682	0	35	35
Benin	0	0	0	0	0	0	202	1	0	1
Brazil	110	0	0	0	477	5,730	5,730	0	19	19
Brunei	0	0	0	0	0	0	15,974	53	0	53
Cameroon	0	0	0	0	0	0	1,211	4	0	4
Canada	1,007	0	1,114	1,479	7,437	100,242	450,566	1,152	330	1,482
China, People's Republic of	0	0	0	0	151	2,812	7,575	16	9	25
Colombia	652	0	0	0	0	3,079	143,369	461	10	472
Congo (Brazzaville)	0	0	0	0	0	0	13,032	43	0	43
Congo (Kinshasa) ^d	0	0	0	0	0	0	900	3	0	3
Ecuador	0	0	0	0	0	0	32,236	106	0	106
Egypt	264	0	0	0	0	531	7,575	23	2	25
France	0	0	37	0	1,766	7,428	7,428	0	24	24
Gabon	0	0	0	0	0	0	45,272	149	0	149
Germany, FR	0	0	0	0	51	7,825	7,825	0	26	26
Greece	329	0	0	0	0	473	473	0	2	2
Guatemala	0	0	0	0	0	262	6,780	21	1	22
Ireland	0	0	0	0	0	556	556	0	2	2
Italy	312	0	0	0	0	2,992	2,992	0	10	10
Ivory Coast	0	0	0	0	0	292	292	0	1	1
Japan	43	0	0	0	65	3,034	3,034	0	10	10
Korea, Republic of	145	0	24	0	908	8,060	8,060	0	27	27
Malaysia	0	632	0	0	0	3,338	10,342	23	11	34
Mexico	6,826	2,438	0	1,131	45	20,231	400,168	1,250	67	1,316
Netherlands	514	0	20	0	1,028	8,077	8,077	0	27	27
Netherlands Antilles	2,446	750	0	171	0	21,334	21,334	0	70	70
Norway	0	5,006	0	0	0	11,140	86,844	249	37	286
Peru	209	0	0	0	0	772	9,999	30	3	33
Portugal	0	0	0	0	0	4,265	4,265	0	14	14
Puerto Rico	1,722	0	2,010	0	0	3,732	3,732	0	12	12
Romania	0	0	0	0	0	747	747	0	2	2
Russia	860	2,577	0	0	0	20,105	23,656	12	66	78
Singapore	0	0	0	0	66	6,515	6,515	0	21	21
Spain	0	263	0	476	0	2,889	2,889	0	10	10
Sweden	0	302	0	0	0	1,760	1,760	0	6	6
Syria	0	0	0	0	0	232	341	(s)	1	1
Thailand	0	0	0	0	0	626	626	0	2	2
Trinidad and Tobago	244	0	0	0	0	4,493	15,989	38	15	53
Turkey	0	0	0	0	0	217	217	0	1	1
United Kingdom	63	532	0	0	92	23,242	112,154	292	76	369
Virgin Islands	65	0	0	0	246	83,880	83,880	0	276	276
Yemen	0	0	0	0	0	541	541	0	2	2
Other	0	1,483	0	0	79	14,890	25,430	35	49	84
Total	21,662	49,161	3,220	10,993	33,286	609,316	3,247,377	8,678	2,004	10,682
Persian Gulf^e	0	1,134	0	0	9,004	32,489	743,923	2,340	107	2,447

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d Formerly Zaire.

^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 41. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1999**
(Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	49,729	1,050	454	2,297	12,228	90	1,834	13,179	0	0
Algeria	3,393	1,050	454	447	86	0	0	13,179	0	0
Iraq	2,154	0	0	0	0	0	0	0	0	0
Saudi Arabia	44,182	0	0	1,850	12,142	90	1,834	0	0	0
Other OPEC	132,567	20	3,427	8,619	18,300	5,487	14,477	13,028	0	0
Nigeria	77,739	20	0	195	11	0	393	0	0	0
Venezuela	54,828	0	3,427	8,424	18,289	5,487	14,084	13,028	0	0
Non OPEC	267,883	4,593	12,421	41,656	71,830	13,694	39,705	28,487	357	411
Angola	62,626	0	0	0	0	689	0	0	0	0
Argentina	2,741	0	601	3,213	1,898	0	0	150	0	0
Bahama Islands	0	0	0	0	443	0	0	697	0	0
Belgium	0	0	258	3,748	1,126	0	176	109	0	0
Brazil	0	0	350	1,787	1,936	0	0	459	0	197
Cameroon	809	0	0	0	0	0	0	0	0	0
Canada	48,374	2,345	0	780	15,130	443	15,366	4,836	357	214
China, People's Republic of	0	0	0	1,115	434	0	0	0	0	0
Colombia	29,623	0	137	75	0	279	0	1,151	0	0
Congo (Brazzaville)	3,659	0	0	0	0	0	0	0	0	0
Congo (Kinshasa) ^d	900	0	0	0	0	0	0	0	0	0
Ecuador	6,222	0	0	0	0	0	0	0	0	0
Egypt	5,978	0	0	267	0	0	0	0	0	0
France	0	0	790	1,793	1,128	0	0	0	0	0
Gabon	32,014	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	156	1,364	513	0	0	0	0	0
Ireland	0	0	556	0	0	0	0	0	0	0
Italy	0	0	50	1,537	753	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	198	0	201	0	0	0	0
Mexico	7,910	0	2,328	1,440	0	0	0	1,022	0	0
Netherlands	0	0	683	2,980	1,243	0	0	623	0	0
Netherlands Antilles	0	0	330	0	51	3,957	503	3,879	0	0
Norway	43,181	1,017	0	35	1,163	0	0	0	0	0
Peru	364	0	0	0	0	0	0	213	0	0
Portugal	0	0	0	271	3,649	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Romania	0	0	0	471	276	0	0	0	0	0
Russia	0	0	436	1,536	304	0	572	78	0	0
Singapore	0	0	0	199	117	0	0	0	0	0
Spain	0	0	110	1,049	798	0	0	0	0	0
Sweden	0	0	775	0	19	0	0	181	0	0
Thailand	0	0	0	91	13	0	0	0	0	0
Trinidad and Tobago	459	0	0	611	159	0	663	2,237	0	0
United Kingdom	21,888	1,231	1,717	12,015	1,992	0	432	1,004	0	0
Virgin Islands	0	0	2,699	573	37,574	8,125	21,805	11,848	0	0
Other	1,135	0	445	4,508	1,111	0	188	0	0	0
Total	450,179	5,663	16,302	52,572	102,358	19,271	56,016	54,694	357	411
Persian Gulf^e	46,336	0	0	1,850	12,142	90	1,834	0	0	0

See footnotes at end of table.

**Table 41. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1999 (Continued)**
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	0	0	0	0	911	32,043	81,772	164	105	269
Algeria	0	0	0	0	0	15,216	18,609	11	50	61
Iraq	0	0	0	0	0	0	2,154	7	0	7
Saudi Arabia	0	0	0	0	911	16,827	61,009	145	55	201
Other OPEC	0	0	0	7,558	656	71,572	204,139	436	235	672
Nigeria	0	0	0	0	0	619	78,358	256	2	258
Venezuela	0	0	0	7,558	656	70,953	125,781	180	233	414
Non OPEC	1,766	532	2,829	2,695	3,805	224,781	492,664	881	739	1,621
Angola	0	0	0	0	0	689	63,315	206	2	208
Argentina	0	0	0	0	0	5,862	8,603	9	19	28
Bahama Islands	0	0	0	0	0	1,140	1,140	0	4	4
Belgium	0	0	0	0	0	5,417	5,417	0	18	18
Brazil	0	0	0	0	477	5,206	5,206	0	17	17
Cameroon	0	0	0	0	0	0	809	3	0	3
Canada	207	0	819	1,294	144	41,935	90,309	159	138	297
China, People's Republic of	0	0	0	0	29	1,578	1,578	0	5	5
Colombia	0	0	0	0	0	1,642	31,265	97	5	103
Congo (Brazzaville)	0	0	0	0	0	0	3,659	12	0	12
Congo (Kinshasa) ^d	0	0	0	0	0	0	900	3	0	3
Ecuador	0	0	0	0	0	0	6,222	20	0	20
Egypt	0	0	0	0	0	267	6,245	20	1	21
France	0	0	0	0	1,766	5,477	5,477	0	18	18
Gabon	0	0	0	0	0	0	32,014	105	0	105
Germany, FR	0	0	0	0	51	2,084	2,084	0	7	7
Ireland	0	0	0	0	0	556	556	0	2	2
Italy	0	0	0	0	0	2,340	2,340	0	8	8
Japan	18	0	0	0	24	42	42	0	(s)	(s)
Korea, Republic of	0	0	0	0	0	399	399	0	1	1
Mexico	0	0	0	838	0	5,628	13,538	26	19	45
Netherlands	0	0	0	0	1,028	6,557	6,557	0	22	22
Netherlands Antilles	0	0	0	171	0	8,891	8,891	0	29	29
Norway	0	0	0	0	0	2,215	45,396	142	7	149
Peru	0	0	0	0	0	213	577	1	1	2
Portugal	0	0	0	0	0	3,920	3,920	0	13	13
Puerto Rico	1,541	0	2,010	0	0	3,551	3,551	0	12	12
Romania	0	0	0	0	0	747	747	0	2	2
Russia	0	0	0	0	0	2,926	2,926	0	10	10
Singapore	0	0	0	0	0	316	316	0	1	1
Spain	0	0	0	392	0	2,349	2,349	0	8	8
Sweden	0	0	0	0	0	975	975	0	3	3
Thailand	0	0	0	0	0	104	104	0	(s)	(s)
Trinidad and Tobago	0	0	0	0	0	3,670	4,129	2	12	14
United Kingdom	0	532	0	0	0	18,923	40,811	72	62	134
Virgin Islands	0	0	0	0	246	82,870	82,870	0	273	273
Other	0	0	0	0	40	6,292	7,427	4	21	24
Total	1,766	532	2,829	10,253	5,372	328,396	778,575	1,481	1,080	2,561
Persian Gulf^e	0	0	0	0	911	16,827	63,163	152	55	208

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d Formerly Zaire.

^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 42. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1999**
(Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	90,904	0	0	0	0	0	228	0	0	0
Algeria	0	0	0	0	0	0	228	0	0	0
Iraq	25,096	0	0	0	0	0	0	0	0	0
Kuwait	8,308	0	0	0	0	0	0	0	0	0
Saudi Arabia	57,500	0	0	0	0	0	0	0	0	0
Other OPEC	81,470	0	0	0	0	0	0	0	0	0
Nigeria	31,925	0	0	0	0	0	0	0	0	0
Venezuela	49,545	0	0	0	0	0	0	0	0	0
Non OPEC	301,626	36,476	3	0	665	4	1,337	440	1	272
Angola	12,262	0	0	0	0	0	0	0	0	0
Brunei	660	0	0	0	0	0	0	0	0	0
Canada	236,691	36,476	3	0	665	4	1,337	440	1	272
Colombia	22,946	0	0	0	0	0	0	0	0	0
Congo (Brazzaville)	349	0	0	0	0	0	0	0	0	0
Ecuador	357	0	0	0	0	0	0	0	0	0
Mexico	16,656	0	0	0	0	0	0	0	0	0
Norway	4,006	0	0	0	0	0	0	0	0	0
Russia	521	0	0	0	0	0	0	0	0	0
United Kingdom	7,178	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Total	474,000	36,476	3	0	665	4	1,565	440	1	272
Persian Gulf^e	90,904	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

Table 42. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a January-October 1999 (Continued)
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	0	0	0	0	0	228	91,132	299	1	300
Algeria	0	0	0	0	0	228	228	0	1	1
Iraq	0	0	0	0	0	0	25,096	83	0	83
Kuwait	0	0	0	0	0	0	8,308	27	0	27
Saudi Arabia	0	0	0	0	0	0	57,500	189	0	189
Other OPEC	0	0	0	0	0	0	81,470	268	0	268
Nigeria	0	0	0	0	0	0	31,925	105	0	105
Venezuela	0	0	0	0	0	0	49,545	163	0	163
Non OPEC	423	0	295	128	430	40,474	342,100	992	133	1,125
Angola	0	0	0	0	0	0	12,262	40	0	40
Brunei	0	0	0	0	0	0	660	2	0	2
Canada	423	0	295	128	423	40,467	277,158	779	133	912
Colombia	0	0	0	0	0	0	22,946	75	0	75
Congo (Brazzaville)	0	0	0	0	0	0	349	1	0	1
Ecuador	0	0	0	0	0	0	357	1	0	1
Mexico	0	0	0	0	0	0	16,656	55	0	55
Norway	0	0	0	0	0	0	4,006	13	0	13
Russia	0	0	0	0	0	0	521	2	0	2
United Kingdom	0	0	0	0	0	0	7,178	24	0	24
Other	0	0	0	0	7	7	7	0	(s)	(s)
Total	423	0	295	128	430	40,702	514,702	1,559	134	1,693
Persian Gulf^e	0	0	0	0	0	0	90,904	299	0	299

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.
^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.
^d Formerly Zaire.
^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.
(s) = Less than 500 barrels per day.
Note: Totals may not equal sum of components due to independent rounding.
Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 43. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1999
(Thousand Barrels)**

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	524,684	1,929	14,314	163	0	0	1,257	65	0	0
Algeria	4,961	1,929	9,583	0	0	0	1,020	0	0	0
Iraq	155,082	0	0	0	0	0	0	0	0	0
Kuwait	64,524	0	0	0	0	0	0	0	0	0
Qatar	0	0	1,908	0	0	0	0	0	0	0
Saudi Arabia	300,117	0	2,240	0	0	0	237	65	0	0
United Arab Emirates	0	0	583	163	0	0	0	0	0	0
Other OPEC	335,579	2,006	19,557	964	0	0	147	661	0	0
Indonesia	0	0	1,160	0	0	0	0	0	0	0
Nigeria	87,484	0	7,217	7	0	0	147	0	0	0
Venezuela	248,095	2,006	11,180	957	0	0	0	661	0	0
Non OPEC	627,577	2,080	31,625	1,031	767	2	498	15,351	0	765
Angola	31,248	0	0	0	0	0	0	0	0	0
Argentina	13,750	0	0	0	0	0	0	0	0	0
Australia	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	4,565	0	0	0	286	0	0	0
Benin	202	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	58	0	0	0	118	0	238
Brunei	7,983	0	0	0	0	0	0	0	0	0
Cameroon	402	0	0	0	0	0	0	0	0	0
Canada	915	1,030	1,474	46	0	0	0	0	0	278
Colombia	87,340	0	294	218	0	0	0	0	0	0
Congo (Brazzaville)	8,301	0	0	0	0	0	0	0	0	0
Ecuador	728	0	0	0	0	0	0	0	0	0
Egypt	1,066	0	0	0	0	0	0	0	0	0
France	0	0	1,914	0	0	0	0	0	0	0
Gabon	13,258	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	1,475	0	0	0	212	3,065	0	0
Greece	0	0	144	0	0	0	0	0	0	0
Guatemala	6,518	0	262	0	0	0	0	0	0	0
Italy	0	0	179	0	0	0	0	0	0	161
Japan	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	0	0	0	0	0	0	43
Malaysia	590	0	0	0	0	0	0	0	0	0
Mexico	344,904	0	1,173	130	0	2	0	1,797	0	0
Netherlands	0	0	293	0	267	0	0	0	0	0
Netherlands Antilles	0	0	6,379	0	0	0	0	0	0	0
Norway	28,517	1,050	2,558	0	0	0	0	0	0	0
Peru	4,226	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	345	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Russia	3,030	0	6,281	0	0	0	0	7,261	0	0
Spain	0	0	0	0	0	0	0	193	0	0
Sweden	0	0	158	0	0	0	0	325	0	0
Syria	109	0	232	0	0	0	0	0	0	0
Trinidad and Tobago	11,037	0	0	579	0	0	0	0	0	0
Turkey	0	0	217	0	0	0	0	0	0	0
United Kingdom	59,846	0	1,293	0	0	0	0	1,089	0	45
Virgin Islands	0	0	0	0	0	0	0	0	0	0
Yemen	0	0	541	0	0	0	0	0	0	0
Other	3,607	0	2,193	0	500	0	0	1,158	0	0
Total	1,487,840	6,015	65,496	2,158	767	2	1,902	16,077	0	765
Persian Gulf^e	519,723	0	4,731	163	0	0	237	65	0	0

See footnotes at end of table.

Table 43. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a January-October 1999 (Continued)
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	1,760	30,022	0	0	10,632	60,142	584,826	1,726	198	1,924
Algeria	1,760	28,888	0	0	10,632	53,812	58,773	16	177	193
Iraq	0	0	0	0	0	0	155,082	510	0	510
Kuwait	0	0	0	0	0	0	64,524	212	0	212
Qatar	0	1,038	0	0	0	2,946	2,946	0	10	10
Saudi Arabia	0	0	0	0	0	2,542	302,659	987	8	996
United Arab Emirates	0	96	0	0	0	842	842	0	3	3
Other OPEC	3,730	2,202	15	178	8	29,468	365,047	1,104	97	1,201
Indonesia	0	263	0	0	8	1,431	1,431	0	5	5
Nigeria	94	0	0	0	0	7,465	94,949	288	25	312
Venezuela	3,636	1,939	15	178	0	20,572	268,667	816	68	884
Non OPEC	13,838	16,405	81	377	160	82,980	710,557	2,064	273	2,337
Angola	0	225	0	0	0	225	31,473	103	1	104
Argentina	340	0	0	0	0	340	14,090	45	1	46
Australia	0	2,729	0	0	0	2,729	2,729	0	9	9
Belgium	21	0	0	0	0	4,872	4,872	0	16	16
Benin	0	0	0	0	0	0	202	1	0	1
Brazil	110	0	0	0	0	524	524	0	2	2
Brunei	0	0	0	0	0	0	7,983	26	0	26
Cameroon	0	0	0	0	0	0	402	1	0	1
Canada	377	0	0	0	0	3,205	4,120	3	11	14
Colombia	652	0	0	0	0	1,164	88,504	287	4	291
Congo (Brazzaville)	0	0	0	0	0	0	8,301	27	0	27
Ecuador	0	0	0	0	0	0	728	2	0	2
Egypt	264	0	0	0	0	264	1,330	4	1	4
France	0	0	37	0	0	1,951	1,951	0	6	6
Gabon	0	0	0	0	0	0	13,258	44	0	44
Germany, FR	0	0	0	0	0	4,752	4,752	0	16	16
Greece	329	0	0	0	0	473	473	0	2	2
Guatemala	0	0	0	0	0	262	6,780	21	1	22
Italy	312	0	0	0	0	652	652	0	2	2
Japan	25	0	0	0	35	60	60	0	(s)	(s)
Korea, Republic of	0	0	24	0	1	68	68	0	(s)	(s)
Malaysia	0	632	0	0	0	632	1,222	2	2	4
Mexico	6,826	2,438	0	293	0	12,659	357,563	1,135	42	1,176
Netherlands	514	0	20	0	0	1,094	1,094	0	4	4
Netherlands Antilles	2,446	750	0	0	0	9,575	9,575	0	31	31
Norway	0	5,006	0	0	0	8,614	37,131	94	28	122
Peru	209	0	0	0	0	209	4,435	14	1	15
Portugal	0	0	0	0	0	345	345	0	1	1
Puerto Rico	181	0	0	0	0	181	181	0	1	1
Russia	860	2,577	0	0	0	16,979	20,009	10	56	66
Spain	0	263	0	84	0	540	540	0	2	2
Sweden	0	302	0	0	0	785	785	0	3	3
Syria	0	0	0	0	0	232	341	(s)	1	1
Trinidad and Tobago	244	0	0	0	0	823	11,860	36	3	39
Turkey	0	0	0	0	0	217	217	0	1	1
United Kingdom	63	0	0	0	92	2,582	62,428	197	8	205
Virgin Islands	65	0	0	0	0	65	65	0	(s)	(s)
Yemen	0	0	0	0	0	541	541	0	2	2
Other	0	1,483	0	0	32	5,366	8,973	12	18	30
Total	19,328	48,629	96	555	10,800	172,590	1,660,430	4,894	568	5,462
Persian Gulf^e	0	1,134	0	0	0	6,330	526,053	1,710	21	1,730

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d Formerly Zaire.

^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

Table 44. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a January-October 1999
(Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
PAD District IV										
Non OPEC	46,072	1,974	0	0	115	0	2,107	0	0	0
Canada	45,525	1,974	0	0	115	0	2,107	0	0	0
Mexico	547	0	0	0	0	0	0	0	0	0
Total	46,072	1,974	0	0	115	0	2,107	0	0	0
PAD District V										
Arab OPEC	54,471	0	697	0	550	689	0	0	0	0
Algeria	0	0	697	0	0	0	0	0	0	0
Iraq	34,176	0	0	0	0	0	0	0	0	0
Kuwait	4,828	0	0	0	0	200	0	0	0	0
Saudi Arabia	15,467	0	0	0	550	489	0	0	0	0
Other OPEC	21,172	0	1,274	146	0	3,535	0	850	0	0
Indonesia	19,250	0	551	0	0	0	0	850	0	0
Venezuela	1,922	0	723	146	0	3,535	0	0	0	0
Non OPEC	104,327	123	8,011	2,599	8,563	14,171	3,637	1,701	0	0
Angola	1,265	0	0	0	0	0	0	0	0	0
Argentina	9,263	0	0	0	0	0	0	0	0	0
Australia	10,084	0	0	160	455	69	393	0	0	0
Bahama Islands	0	0	368	0	0	0	0	0	0	0
Belgium	0	0	0	0	393	0	0	0	0	0
Brunei	7,331	0	0	0	0	0	0	0	0	0
Canada	18,819	123	236	86	217	1,099	1,751	0	0	0
China, People's Republic of	4,763	0	42	600	208	262	0	0	0	0
Colombia	381	0	0	0	0	273	0	0	0	0
Congo (Brazzaville)	723	0	0	0	0	0	0	0	0	0
Ecuador	24,929	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	757	0	232	0	0	0	0	0
Ivory Coast	0	0	292	0	0	0	0	0	0	0
Japan	0	0	70	0	689	1,461	706	0	0	0
Korea, Republic of	0	0	0	521	876	5,144	0	0	0	0
Malaysia	6,414	0	2,055	0	0	419	232	0	0	0
Mexico	9,920	0	0	0	0	859	0	1,040	0	0
Netherlands	0	0	0	0	426	0	0	0	0	0
Netherlands Antilles	0	0	2,177	0	0	691	0	0	0	0
Norway	0	0	0	0	0	0	0	311	0	0
Peru	4,637	0	0	0	0	0	0	350	0	0
Russia	0	0	0	0	0	156	44	0	0	0
Singapore	0	0	1,653	328	905	3,045	202	0	0	0
Thailand	0	0	0	0	228	294	0	0	0	0
United Kingdom	0	0	0	333	1,404	0	0	0	0	0
Virgin Islands	0	0	361	0	275	0	309	0	0	0
Other	5,798	0	0	571	2,255	399	0	0	0	0
Total	179,970	123	9,982	2,745	9,113	18,395	3,637	2,551	0	0
Persian Gulf^e	54,471	0	0	0	550	689	0	0	0	0

See footnotes at end of table.

Table 44. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a January-October 1999 (Continued)
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
PAD District IV										
Non OPEC	0	0	0	57	1,043	5,296	51,368	152	17	169
Canada	0	0	0	57	1,043	5,296	50,821	150	17	167
Mexico	0	0	0	0	0	0	547	2	0	2
Total	0	0	0	57	1,043	5,296	51,368	152	17	169
PAD District V										
Arab OPEC	0	0	0	0	8,093	10,029	64,500	179	33	212
Algeria	0	0	0	0	0	697	697	0	2	2
Iraq	0	0	0	0	0	0	34,176	112	0	112
Kuwait	0	0	0	0	0	200	5,028	16	1	17
Saudi Arabia	0	0	0	0	8,093	9,132	24,599	51	30	81
Other OPEC	0	0	0	0	575	6,380	27,552	70	21	91
Indonesia	0	0	0	0	0	1,401	20,651	63	5	68
Venezuela	0	0	0	0	575	4,979	6,901	6	16	23
Non OPEC	145	0	0	0	6,973	45,923	150,250	343	151	494
Angola	0	0	0	0	0	0	1,265	4	0	4
Argentina	0	0	0	0	0	0	9,263	30	0	30
Australia	0	0	0	0	0	1,077	11,161	33	4	37
Bahama Islands	0	0	0	0	0	368	368	0	1	1
Belgium	0	0	0	0	0	393	393	0	1	1
Brunei	0	0	0	0	0	0	7,331	24	0	24
Canada	0	0	0	0	5,827	9,339	28,158	62	31	93
China, People's Republic of	0	0	0	0	122	1,234	5,997	16	4	20
Colombia	0	0	0	0	0	273	654	1	1	2
Congo (Brazzaville)	0	0	0	0	0	0	723	2	0	2
Ecuador	0	0	0	0	0	0	24,929	82	0	82
Germany, FR	0	0	0	0	0	989	989	0	3	3
Ivory Coast	0	0	0	0	0	292	292	0	1	1
Japan	0	0	0	0	6	2,932	2,932	0	10	10
Korea, Republic of	145	0	0	0	907	7,593	7,593	0	25	25
Malaysia	0	0	0	0	0	2,706	9,120	21	9	30
Mexico	0	0	0	0	45	1,944	11,864	33	6	39
Netherlands	0	0	0	0	0	426	426	0	1	1
Netherlands Antilles	0	0	0	0	0	2,868	2,868	0	9	9
Norway	0	0	0	0	0	311	311	0	1	1
Peru	0	0	0	0	0	350	4,987	15	1	16
Russia	0	0	0	0	0	200	200	0	1	1
Singapore	0	0	0	0	66	6,199	6,199	0	20	20
Thailand	0	0	0	0	0	522	522	0	2	2
United Kingdom	0	0	0	0	0	1,737	1,737	0	6	6
Virgin Islands	0	0	0	0	0	945	945	0	3	3
Other	0	0	0	0	0	3,225	9,023	19	11	30
Total	145	0	0	0	15,641	62,332	242,302	592	205	797
Persian Gulf^e	0	0	0	0	8,093	9,332	63,803	179	31	210

^a Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
^b Includes crude oil imported for storage in the Strategic Petroleum Reserve.
^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.
^d Formerly Zaire.
^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.
(s) = Less than 500 barrels per day.
Note: Totals may not equal sum of components due to independent rounding.
Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 45. Exports of Crude Oil and Petroleum Products by PAD District,
October 1999**
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						U.S. Total	Daily Average
	I	II	III	IV	V			
Crude Oil^a	(s)	448	1	10	1,290	1,749	56	
Natural Gas Liquids	60	63	2,248	0	137	2,508	81	
Pentanes Plus	1	0	0	0	0	1	(s)	
Liquefied Petroleum Gases	59	63	2,248	0	137	2,507	81	
Ethane/Ethylene	0	0	0	0	0	0	0	
Propane/Propylene	42	37	1,793	0	137	2,008	65	
Normal Butane/Butylene	17	26	455	0	(s)	498	16	
Isobutane/Isobutylene	0	0	0	0	0	0	0	
Other Liquids	59	107	999	3	88	1,255	40	
Other Hydrocarbons/Oxygenates	58	107	524	3	87	778	25	
Motor Gasoline Blend. Comp.	1	(s)	474	0	1	476	15	
Finished Petroleum Products	679	211	17,485	14	5,362	23,750	766	
Finished Motor Gasoline	8	21	3,687	0	311	4,027	130	
Naphtha-Type Jet Fuel	4	(s)	29	0	25	59	2	
Kerosene-Type Jet Fuel	1	0	632	0	167	800	26	
Kerosene	6	0	33	0	18	57	2	
Distillate Fuel Oil	63	5	4,651	0	1,226	5,944	192	
Residual Fuel Oil	142	1	3,352	0	532	4,027	130	
Special Naphthas	26	6	41	(s)	293	366	12	
Lubricants	156	77	602	8	393	1,236	40	
Waxes	24	23	42	4	17	109	4	
Petroleum Coke	229	15	4,395	0	2,334	6,973	225	
Asphalt and Road Oil	17	63	21	2	46	148	5	
Miscellaneous Products	3	(s)	1	0	1	5	(s)	
Total	798	829	20,732	26	6,877	29,263	944	

^a Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) Alaskan North Slope crude oil; (3) certain domestically produced crude oil destined for Canada; (4) shipments to U.S. territories; and (5) California crude oil to Pacific Rim countries. On December 6, 1991, the U.S. Department of Commerce approved a license to export 25,000 barrels per day of California heavy crude oil (less than 20 degrees API gravity) to Pacific Rim countries for one year.

(s) = Less than 500 barrels or less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report" and the U.S. Bureau of the Census.

Table 46. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January-October 1999
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						U.S. Total	Daily Average
	I	II	III	IV	V			
Crude Oil^a	1,985	12,811	12	10	21,579	36,396	120	
Natural Gas Liquids	560	3,864	9,621	19	1,615	15,679	52	
Pentanes Plus	15	837	(s)	0	1	853	3	
Liquefied Petroleum Gases	545	3,027	9,621	19	1,614	14,826	49	
Ethane/Ethylene	0	0	0	0	0	0	0	
Propane/Propylene	329	662	7,183	11	1,252	9,437	31	
Normal Butane/Butylene	216	2,365	2,438	8	362	5,390	18	
Isobutane/Isobutylene	0	0	0	0	0	0	0	
Other Liquids	572	326	9,770	45	734	11,447	38	
Other Hydrocarbons/Oxygenates	539	325	6,883	45	724	8,515	28	
Motor Gasoline Blend. Comp.	34	1	2,887	0	10	2,932	10	
Finished Petroleum Products	8,658	3,617	132,543	148	67,915	212,880	700	
Finished Motor Gasoline	341	225	28,577	10	1,843	30,996	102	
Naphtha-Type Jet Fuel	18	1	756	0	25	800	3	
Kerosene-Type Jet Fuel	1,097	251	4,378	0	1,621	7,346	24	
Kerosene	27	3	111	0	51	191	1	
Distillate Fuel Oil	1,792	316	26,561	0	18,689	47,358	156	
Residual Fuel Oil	1,672	276	25,162	0	13,579	40,689	134	
Special Naphthas	187	103	386	3	3,493	4,172	14	
Lubricants	1,280	731	5,253	84	1,535	8,883	29	
Waxes	236	256	393	40	156	1,081	4	
Petroleum Coke	1,729	710	40,769	0	26,659	69,868	230	
Asphalt and Road Oil	249	737	186	11	250	1,433	5	
Miscellaneous Products	30	6	12	0	15	63	(s)	
Total	11,775	20,617	151,945	222	91,843	276,403	909	

^a Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) Alaskan North Slope crude oil; (3) certain domestically produced crude oil destined for Canada; (4) shipments to U.S. territories; and (5) California crude oil to Pacific Rim countries. On December 6, 1991, the U.S. Department of Commerce approved a license to export 25,000 barrels per day of California heavy crude oil (less than 20 degrees API gravity) to Pacific Rim countries for one year.

(s) = Less than 500 barrels or less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report" and the U.S. Bureau of the Census.

Table 47. Exports of Crude Oil and Petroleum Products by Destination, October 1999
(Thousand Barrels)

Destination	Crude Oil ^a	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
Argentina	0	0	0	0	0	0	2	(s)
Australia	0	0	(s)	0	0	0	0	0
Bahama Islands	0	0	2	2	0	0	38	24
Bahrain	0	0	0	0	0	0	0	0
Belgium & Luxembourg	0	0	0	0	0	0	1	(s)
Brazil	0	0	743	0	0	0	4	0
Cameroon	0	0	0	0	0	0	0	0
Canada	458	(s)	107	91	193	16	315	254
Chile	0	0	0	0	0	0	0	0
China, People's Republic of	0	0	0	0	0	0	480	0
China, Taiwan	0	0	(s)	(s)	0	0	2	0
Colombia	0	0	0	10	0	0	0	1
Costa Rica	0	0	0	0	0	0	13	220
Denmark	0	0	0	0	0	0	0	1
Dominican Republic	0	0	0	0	0	0	2	0
Ecuador	0	0	0	220	220	0	2	0
Egypt	0	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	(s)	0
Finland	0	0	0	0	0	1	1	0
France	0	0	19	0	0	0	280	0
French Pacific Islands	0	0	0	0	0	0	40	0
Germany, FR	0	(s)	19	0	0	0	0	0
Ghana	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	(s)	0
Guatemala	0	0	64	0	10	1	68	1
Guinea	0	0	0	0	(s)	0	(s)	0
Honduras	0	0	0	10	39	0	187	1
Hong Kong	1	0	0	(s)	0	0	0	0
India	0	0	0	0	0	0	(s)	7
Indonesia	0	0	0	0	0	0	3	0
Ireland	0	0	0	0	0	0	0	0
Israel	0	0	0	0	257	0	0	0
Italy	0	0	0	0	0	0	2	0
Jamaica	0	0	0	60	0	0	37	440
Japan	500	0	488	3	0	2	100	140
Korea, Republic of	789	0	0	(s)	0	1	1	452
Malaysia	0	0	0	0	0	0	0	0
Mexico	1	0	1,050	3,331	54	4	2,382	943
Netherlands	0	0	0	299	0	32	307	517
Netherlands Antilles	0	0	0	(s)	0	0	513	0
New Zealand	0	0	0	0	(s)	0	0	0
Nigeria	0	0	(s)	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0
Panama	0	0	(s)	0	80	0	68	139
Peru	0	0	0	0	0	0	112	0
Philippines	0	0	0	0	0	0	(s)	0
Poland	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0
Puerto Rico	0	0	2	0	(s)	0	254	0
Russia	0	0	0	0	0	0	0	0
Saudi Arabia	0	0	0	0	4	0	0	0
Singapore	0	0	0	0	0	0	337	759
South Africa	0	0	(s)	0	0	0	0	0
Spain	0	0	1	0	0	0	229	128
Suriname	0	0	0	0	0	0	(s)	0
Sweden	0	0	0	0	0	0	1	0
Switzerland	0	0	0	0	0	0	0	0
Thailand	0	0	0	0	0	0	(s)	0
Trinidad and Tobago	0	0	0	0	0	0	1	0
Turkey	0	0	0	0	0	0	(s)	0
United Arab Emirates	0	0	0	0	0	0	0	0
United Kingdom	0	1	9	0	0	0	155	(s)
Uruguay	0	0	0	0	0	0	1	0
Venezuela	0	0	0	0	0	0	(s)	0
Virgin Islands	0	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	0	0
Other	0	0	1	0	0	0	4	0
Total	1,749	1	2,507	4,027	858	57	5,944	4,027

See footnotes at end of table.

Table 47. Exports of Crude Oil and Petroleum Products by Destination, October 1999 (Continued)
(Thousand Barrels)

Destination	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Other Products ^b	Crude Oil and Products	
							Total	Daily Average
Argentina	(s)	10	(s)	0	0	1	14	(s)
Australia	(s)	4	1	415	(s)	1	422	14
Bahama Islands	0	2	0	0	(s)	0	67	2
Bahrain	0	(s)	0	0	(s)	0	(s)	(s)
Belgium & Luxembourg	0	9	1	429	0	45	486	16
Brazil	0	9	1	942	(s)	9	1,707	55
Cameroon	0	(s)	0	0	0	0	(s)	(s)
Canada	12	161	51	463	78	108	2,308	74
Chile	(s)	19	(s)	0	0	0	19	1
China, People's Republic of	1	4	(s)	0	0	0	485	16
China, Taiwan	2	305	(s)	24	(s)	0	334	11
Colombia	30	19	1	0	(s)	1	61	2
Costa Rica	2	19	(s)	0	0	0	255	8
Denmark	0	(s)	(s)	150	0	0	151	5
Dominican Republic	(s)	41	(s)	(s)	(s)	0	44	1
Ecuador	0	1	(s)	0	0	0	443	14
Egypt	0	10	0	0	0	0	10	(s)
El Salvador	(s)	3	(s)	0	0	0	4	(s)
Finland	1	1	0	0	0	0	4	(s)
France	0	2	2	52	(s)	(s)	355	11
French Pacific Islands	0	(s)	(s)	0	0	0	40	1
Germany, FR	0	5	2	0	2	(s)	28	1
Ghana	0	1	0	42	0	0	42	1
Greece	0	1	0	0	0	0	2	(s)
Guatemala	1	11	1	0	0	0	157	5
Guinea	0	1	0	0	0	0	2	(s)
Honduras	2	12	0	0	0	0	251	8
Hong Kong	(s)	15	1	0	(s)	0	18	1
India	0	16	(s)	4	3	1	30	1
Indonesia	0	3	0	88	(s)	0	95	3
Ireland	0	(s)	(s)	0	0	(s)	(s)	(s)
Israel	0	2	0	0	0	0	259	8
Italy	0	(s)	1	663	0	(s)	665	21
Jamaica	0	3	(s)	0	0	0	541	17
Japan	7	37	3	737	1	60	2,078	67
Korea, Republic of	280	16	1	395	0	21	1,955	63
Malaysia	(s)	2	(s)	(s)	0	0	2	(s)
Mexico	2	108	38	266	49	901	9,129	294
Netherlands	0	1	(s)	516	4	6	1,683	54
Netherlands Antilles	0	19	0	0	0	0	533	17
New Zealand	(s)	1	(s)	110	0	0	111	4
Nigeria	0	2	0	0	0	0	2	(s)
Norway	0	1	(s)	62	0	0	63	2
Panama	(s)	272	0	0	0	80	639	21
Peru	0	5	(s)	0	(s)	0	118	4
Philippines	0	6	(s)	0	0	0	6	(s)
Poland	0	(s)	0	0	0	0	(s)	(s)
Portugal	0	(s)	0	181	0	0	182	6
Puerto Rico	15	14	(s)	0	(s)	(s)	286	9
Russia	0	1	0	0	0	0	1	(s)
Saudi Arabia	0	3	(s)	48	0	0	55	2
Singapore	2	16	(s)	0	(s)	7	1,120	36
South Africa	1	1	0	0	(s)	0	3	(s)
Spain	0	(s)	(s)	436	(s)	0	793	26
Suriname	0	(s)	0	0	0	0	(s)	(s)
Sweden	0	1	(s)	0	0	0	2	(s)
Switzerland	3	0	0	0	0	(s)	3	(s)
Thailand	0	3	(s)	0	(s)	(s)	4	(s)
Trinidad and Tobago	1	1	0	0	0	18	20	1
Turkey	(s)	(s)	0	272	0	0	272	9
United Arab Emirates	0	10	0	80	0	0	91	3
United Kingdom	(s)	3	1	259	3	(s)	431	14
Uruguay	0	1	(s)	0	0	0	2	(s)
Venezuela	0	3	(s)	121	5	(s)	130	4
Virgin Islands	0	(s)	0	0	0	0	(s)	(s)
Yugoslavia	0	(s)	0	0	0	0	(s)	(s)
Other	3	19	(s)	216	(s)	(s)	244	8
Total	366	1,236	109	6,973	148	1,260	29,263	944

^a Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) Alaskan North Slope crude oil; (3) certain domestically produced crude oil destined for Canada; (4) shipments to U.S. territories; and (5) California crude oil to Pacific Rim countries. On December 6, 1991, the U.S. Department of Commerce approved a license to export 25,000 barrels per day of California heavy crude oil (less than 20 degrees API gravity) to Pacific Rim countries for one year.

^b Includes miscellaneous products, motor gasoline blending components, and other hydrocarbons and oxygenates.

(s) = Less than 500 barrels or less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report" and the U.S. Bureau of the Census.

**Table 48. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination,
January-October 1999**
(Thousand Barrels)

Destination	Crude Oil ^a	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
Argentina	0	0	2	178	0	0	67	1
Australia	0	0	4	2	0	0	8	0
Bahama Islands	0	0	110	57	1	(s)	1,022	520
Bahrain	0	0	0	0	0	0	(s)	0
Belgium & Luxembourg	0	0	8	1	0	0	15	4
Brazil	0	0	743	(s)	100	0	1,957	0
Cameroon	0	0	0	(s)	0	0	0	0
Canada	14,013	848	3,435	1,058	2,739	30	3,183	2,404
Chile	0	0	82	315	0	0	355	243
China, People's Republic of	2,594	0	0	0	(s)	0	2,526	976
China, Taiwan	560	0	24	3	1	4	1,015	388
Colombia	0	0	1	220	0	0	6	1
Costa Rica	0	0	(s)	240	12	0	379	1,065
Denmark	0	0	0	0	0	0	(s)	1
Dominican Republic	0	0	315	0	0	1	618	239
Ecuador	0	0	167	440	220	(s)	31	0
Egypt	0	0	0	0	0	0	3	13
El Salvador	0	0	101	0	0	0	622	1
Finland	0	0	0	0	0	2	11	0
France	0	0	97	(s)	10	0	281	0
French Pacific Islands	0	0	0	(s)	0	0	294	0
Germany, FR	0	(s)	241	(s)	0	0	6	(s)
Ghana	0	0	0	0	0	0	0	0
Greece	0	0	(s)	0	0	0	4	0
Guatemala	0	0	208	870	55	1	996	6
Guinea	0	0	0	0	1	0	1	0
Honduras	0	(s)	30	368	134	0	1,428	344
Hong Kong	2	(s)	(s)	(s)	0	1	6	0
India	0	0	83	0	0	0	15	22
Indonesia	0	0	(s)	0	0	0	4	0
Ireland	0	0	0	0	0	0	1	255
Israel	0	0	1	0	2,056	0	254	0
Italy	0	(s)	217	0	0	0	4	0
Jamaica	0	0	89	101	20	0	80	6,485
Japan	8,344	0	626	5	0	7	262	517
Korea, Republic of	10,877	0	447	(s)	0	1	28	978
Malaysia	0	1	(s)	0	0	(s)	10	0
Mexico	6	(s)	6,684	25,915	1,056	28	17,219	15,893
Netherlands	0	0	0	299	875	93	1,547	1,960
Netherlands Antilles	0	0	(s)	(s)	(s)	(s)	1,918	567
New Zealand	0	(s)	(s)	0	(s)	0	1	0
Nigeria	0	0	1	0	0	0	236	0
Norway	0	0	23	0	0	0	1	5
Panama	0	0	24	110	80	1	1,682	2,037
Peru	0	0	206	(s)	9	1	115	0
Philippines	0	0	(s)	0	0	0	2	0
Poland	0	(s)	(s)	0	0	0	(s)	0
Portugal	0	0	0	0	0	0	0	0
Puerto Rico	0	0	47	485	1	3	1,287	1
Russia	0	0	(s)	57	0	0	13	(s)
Saudi Arabia	0	0	(s)	0	4	0	2	0
Singapore	0	0	0	0	0	0	6,293	5,610
South Africa	0	0	(s)	0	(s)	0	6	0
Spain	0	0	2	0	0	0	824	128
Suriname	0	0	0	0	0	0	1	0
Sweden	0	1	0	2	0	0	12	0
Switzerland	0	0	0	0	0	(s)	1	0
Thailand	0	0	(s)	0	0	2	1	1
Trinidad and Tobago	0	0	0	(s)	0	0	5	0
Turkey	0	0	668	0	0	0	8	0
United Arab Emirates	0	0	(s)	0	0	(s)	1	4
United Kingdom	0	1	48	2	721	12	177	8
Uruguay	0	0	0	0	0	0	1	0
Venezuela	0	0	1	0	(s)	(s)	239	0
Virgin Islands	0	0	0	0	(s)	0	1	0
Yugoslavia	0	0	0	0	0	0	1	1
Other	0	0	90	267	49	1	277	9
Total	36,396	853	14,826	30,996	8,146	191	47,358	40,689

See footnotes at end of table.

Table 48. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-October 1999 (Continued)
(Thousand Barrels)

Destination	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Other Products ^b	Crude Oil and Products	
							Total	Daily Average
Argentina	7	56	4	28	1	7	349	1
Australia	1	31	5	3,068	5	2	3,127	10
Bahama Islands	(s)	32	0	0	4	1	1,748	6
Bahrain	(s)	1	0	0	(s)	0	1	(s)
Belgium & Luxembourg	(s)	76	5	2,692	1	313	3,114	10
Brazil	6	60	5	5,592	8	60	8,531	28
Cameroon	0	1	0	198	0	0	199	1
Canada	161	1,518	549	4,170	986	598	35,693	117
Chile	3	242	4	488	1	(s)	1,732	6
China, People's Republic of	12	39	2	(s)	2	6	6,158	20
China, Taiwan	19	596	4	192	2	27	2,835	9
Colombia	37	183	4	226	4	2	684	2
Costa Rica	12	150	4	0	40	1	1,902	6
Denmark	(s)	1	(s)	946	(s)	(s)	950	3
Dominican Republic	2	279	2	45	6	(s)	1,508	5
Ecuador	218	29	(s)	0	0	(s)	1,106	4
Egypt	1	46	0	0	1	(s)	64	(s)
El Salvador	(s)	50	2	0	0	(s)	776	3
Finland	1	3	0	0	1	0	18	(s)
France	3	15	19	1,334	4	4	1,767	6
French Pacific Islands	(s)	1	(s)	0	0	0	295	1
Germany, FR	2	18	26	290	27	23	635	2
Ghana	0	3	0	342	(s)	4	349	1
Greece	0	15	(s)	680	0	0	698	2
Guatemala	11	141	4	0	0	23	2,315	8
Guinea	0	15	0	0	0	0	17	(s)
Honduras	12	90	1	0	0	(s)	2,408	8
Hong Kong	6	72	7	0	1	(s)	97	(s)
India	(s)	175	6	405	8	39	753	2
Indonesia	(s)	10	1	184	1	140	340	1
Ireland	0	(s)	(s)	151	0	2	410	1
Israel	(s)	31	(s)	1,238	0	5	3,583	12
Italy	(s)	127	3	6,881	3	82	7,317	24
Jamaica	7	78	2	0	0	168	7,029	23
Japan	2,825	438	29	11,759	13	413	25,239	83
Korea, Republic of	618	70	6	1,048	7	255	14,334	47
Malaysia	1	18	1	5	1	2	39	(s)
Mexico	25	1,313	345	2,966	228	6,102	77,779	256
Netherlands	5	20	3	5,601	17	79	10,501	35
Netherlands Antilles	0	1,297	(s)	0	0	0	3,783	12
New Zealand	(s)	11	(s)	610	1	1	624	2
Nigeria	(s)	42	0	0	(s)	0	279	1
Norway	0	3	(s)	762	0	(s)	794	3
Panama	1	353	1	(s)	0	278	4,567	15
Peru	(s)	39	1	1	1	(s)	374	1
Philippines	2	22	4	143	(s)	(s)	174	1
Poland	0	(s)	0	0	0	0	1	(s)
Portugal	(s)	1	0	1,409	(s)	(s)	1,410	5
Puerto Rico	101	187	2	0	2	3	2,120	7
Russia	0	18	(s)	6	0	0	94	(s)
Saudi Arabia	(s)	21	1	144	(s)	(s)	172	1
Singapore	4	171	2	26	2	74	12,181	40
South Africa	2	129	(s)	946	1	5	1,089	4
Spain	(s)	3	2	5,788	3	(s)	6,749	22
Suriname	0	6	0	0	(s)	0	7	(s)
Sweden	0	9	1	178	0	4	207	1
Switzerland	12	3	2	23	0	26	66	(s)
Thailand	1	32	1	991	(s)	3	1,032	3
Trinidad and Tobago	3	151	1	1	0	19	181	1
Turkey	(s)	35	(s)	3,160	(s)	3	3,876	13
United Arab Emirates	1	40	0	1,000	2	0	1,048	3
United Kingdom	6	37	7	755	25	38	1,837	6
Uruguay	0	10	(s)	(s)	(s)	(s)	12	(s)
Venezuela	2	33	9	1,059	12	2,456	3,810	13
Virgin Islands	0	2	0	0	0	0	2	(s)
Yugoslavia	0	3	0	0	0	0	5	(s)
Other	39	183	3	2,339	11	242	3,512	12
Total	4,172	8,883	1,081	69,868	1,433	11,510	276,403	909

^a Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) Alaskan North Slope crude oil; (3) certain domestically produced crude oil destined for Canada; (4) shipments to U.S. territories; and (5) California crude oil to Pacific Rim countries. On December 6, 1991, the U.S. Department of Commerce approved a license to export 25,000 barrels per day of California heavy crude oil (less than 20 degrees API gravity) to Pacific Rim countries for one year.

^b Includes miscellaneous products, motor gasoline blending components, and other hydrocarbons and oxygenates.

(s) = Less than 500 barrels or less than 500 barrels per day.

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

Table 49. Net Imports of Crude Oil and Petroleum Products into the United States by Country, October 1999
(Thousand Barrels per Day)

Country	Crude Oil ^a	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products ^b	Total Products	Total Crude Oil and Products
Arab OPEC	2,260	0	53	(s)	6	21	-4	-1	198	274	2,534
Algeria	0	0	0	0	0	21	0	(s)	162	183	183
Iraq	867	0	0	0	0	0	0	0	0	0	867
Kuwait	205	0	0	0	0	0	0	(s)	0	(s)	205
Qatar	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Saudi Arabia	1,188	0	53	(s)	6	0	-2	(s)	36	94	1,282
United Arab Emirates	0	0	0	0	0	0	-3	(s)	0	-3	-3
Other OPEC	1,642	(s)	56	40	39	31	-7	(s)	166	326	1,967
Indonesia	79	0	0	0	(s)	0	-3	(s)	19	16	95
Nigeria	522	(s)	0	0	5	0	0	(s)	17	22	543
Venezuela	1,041	0	56	40	34	31	-4	(s)	130	288	1,329
Non OPEC	4,481	101	136	29	-30	29	-214	-28	479	502	4,982
Angola	444	0	0	0	0	0	0	(s)	0	(s)	444
Argentina	29	0	9	0	(s)	(s)	0	(s)	38	47	76
Australia	0	(s)	0	0	0	0	-13	(s)	(s)	-14	-14
Bahama Islands	0	(s)	(s)	0	-1	-1	0	(s)	(s)	-2	-2
Belgium & Luxembourg	0	0	10	0	(s)	(s)	-14	(s)	45	41	41
Brazil	0	-24	1	0	(s)	0	-30	(s)	16	-37	-37
Brunei	99	0	0	0	0	0	0	0	0	0	99
Cameroon	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Canada	1,203	179	52	2	66	4	-15	-1	38	326	1,529
China, People's Republic of	0	0	0	0	-15	0	0	(s)	(s)	-16	-16
China, Taiwan	0	(s)	(s)	0	(s)	0	-1	(s)	(s)	-11	-11
Colombia	432	0	(s)	0	0	(s)	0	-1	-1	-2	430
Congo (Brazzaville)	30	0	0	0	0	0	0	0	0	0	30
Congo (Kinshasa) ^c	6	0	0	0	0	0	0	0	0	0	6
Ecuador	163	0	-7	-7	(s)	0	0	(s)	(s)	-14	148
Egypt	37	0	0	0	0	0	0	(s)	0	(s)	37
France	0	-1	9	0	-9	0	-2	(s)	19	16	16
Gabon	186	0	0	0	0	0	0	0	0	0	186
Germany, FR	0	-1	0	0	7	19	0	(s)	6	31	31
Greece	0	0	0	0	(s)	0	0	(s)	0	(s)	(s)
Guatemala	21	-2	0	(s)	-2	(s)	0	(s)	(s)	-5	16
India	0	0	0	0	(s)	(s)	(s)	-1	(s)	-1	-1
Italy	0	0	0	0	(s)	0	-21	(s)	7	-14	-14
Jamaica	0	0	-2	0	-1	-14	0	(s)	(s)	-17	-17
Japan	-16	-16	(s)	0	7	-5	-24	-1	-2	-40	-57
Korea, Republic of	-25	0	(s)	8	(s)	-15	-13	-1	-2	-22	-48
Malaysia	36	0	0	3	0	0	(s)	(s)	(s)	3	39
Mexico	1,124	-34	-107	-2	-77	-12	-9	-3	9	-235	889
Netherlands	0	0	-10	0	-10	-17	-17	(s)	15	-38	-38
Netherlands Antilles	0	0	(s)	0	-14	0	0	-1	46	32	32
Norway	292	0	8	0	0	0	-2	(s)	41	47	339
Oman	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Panama	0	(s)	0	-3	-2	-4	0	-9	-3	-21	-21
Peru	0	0	0	0	-4	11	0	(s)	(s)	7	7
Puerto Rico	0	(s)	0	(s)	-8	0	0	7	6	4	4
Romania	0	0	9	0	(s)	0	0	(s)	0	9	9
Russia	0	0	0	0	0	40	0	(s)	69	110	110
Spain	0	(s)	(s)	0	-7	2	-14	(s)	16	-3	-3
Sweden	0	0	0	0	(s)	6	0	(s)	(s)	6	6
Thailand	0	0	0	0	(s)	0	0	(s)	(s)	(s)	(s)
Trinidad and Tobago	66	0	5	0	(s)	0	0	(s)	3	8	74
Turkey	0	0	0	0	(s)	0	-9	(s)	2	-6	-6
United Kingdom	267	(s)	0	0	-5	(s)	-8	(s)	70	56	323
Virgin Islands	0	0	142	37	65	39	0	(s)	0	284	284
Other	88	(s)	16	-10	-19	-24	-23	-5	38	-26	61
Total	8,383	101	245	70	15	81	-225	-28	842	1,102	9,484
Persian Gulf^d	2,260	0	53	(s)	6	0	-4	(s)	36	91	2,351

^a Includes crude oil imported for storage in the Strategic Petroleum Reserve.

^b Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other hydrocarbons and oxygenates, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

^c Formerly Zaire.

^d Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-814, "Monthly Imports Report" and the U.S. Bureau of the Census.

Table 50. Year-to-Date Net Imports of Crude Oil and Petroleum Products into the United States by Country, January-October 1999
(Thousand Barrels per Day)

Country	Crude Oil ^a	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products ^b	Total Products	Total Crude Oil and Products
Arab OPEC	2,368	10	42	3	11	44	-4	(s)	228	333	2,701
Algeria	27	10	(s)	0	4	43	0	(s)	173	230	258
Iraq	712	0	0	0	0	0	0	0	0	0	712
Kuwait	255	(s)	0	1	(s)	0	(s)	(s)	(s)	1	256
Qatar	0	0	0	0	0	0	0	(s)	10	10	10
Saudi Arabia	1,373	(s)	42	2	7	(s)	(s)	(s)	43	93	1,466
United Arab Emirates	0	(s)	0	0	(s)	(s)	-3	(s)	3	-1	-1
Other OPEC	1,878	7	60	30	47	48	-4	(s)	152	339	2,216
Indonesia	63	(s)	0	0	(s)	3	-1	(s)	6	8	72
Nigeria	649	(s)	(s)	0	1	0	0	(s)	25	26	674
Venezuela	1,166	7	60	30	46	45	-3	(s)	121	305	1,471
Non OPEC	4,313	100	168	65	1	17	-221	-18	431	543	4,856
Angola	353	0	0	2	0	0	0	(s)	1	3	356
Argentina	85	(s)	6	0	(s)	(s)	(s)	(s)	14	19	104
Australia	33	(s)	1	(s)	1	0	-10	(s)	9	2	35
Bahama Islands	0	(s)	1	(s)	-3	1	0	(s)	1	-1	-1
Belgium & Luxembourg	0	(s)	5	0	1	(s)	-9	(s)	27	25	25
Benin	1	0	0	0	0	0	0	0	0	0	1
Brazil	0	-2	6	(s)	-6	2	-18	(s)	10	-9	-9
Brunei	53	0	0	0	(s)	0	0	0	0	(s)	53
Cameroon	4	0	(s)	0	0	0	-1	(s)	0	-1	3
Canada	1,106	127	50	-4	57	9	-13	-1	34	258	1,365
China, People's Republic of	7	0	2	1	-8	-3	(s)	(s)	6	-2	5
China, Taiwan	-2	(s)	(s)	(s)	-3	-1	-1	-2	(s)	-7	-9
Colombia	461	(s)	-1	2	(s)	4	-1	-1	4	8	469
Congo (Brazzaville)	43	0	0	0	0	0	0	(s)	0	(s)	43
Congo (Kinshasa) ^c	3	0	0	0	0	0	0	(s)	0	(s)	3
Ecuador	106	-1	-1	-1	(s)	0	0	(s)	-1	-4	102
Egypt	23	0	0	0	(s)	(s)	0	(s)	2	2	25
France	0	(s)	4	(s)	-1	0	-4	(s)	21	19	19
Gabon	149	0	0	0	0	0	0	0	(s)	(s)	149
Germany, FR	0	-1	2	0	1	10	-1	(s)	12	24	24
Greece	0	(s)	0	0	(s)	0	-2	(s)	2	-1	-1
Guatemala	21	-1	-3	(s)	-3	(s)	0	(s)	1	-7	15
India	0	(s)	0	0	(s)	(s)	-1	-1	(s)	-2	-2
Italy	0	-1	2	0	(s)	0	-23	(s)	7	-14	-14
Jamaica	0	(s)	(s)	(s)	(s)	-21	0	(s)	-1	-23	-23
Japan	-27	-2	2	5	1	-2	-39	-1	-10	-46	-73
Korea, Republic of	-36	-1	3	18	(s)	-3	-3	(s)	3	15	-21
Malaysia	23	(s)	0	1	1	0	(s)	(s)	9	11	34
Mexico	1,250	-22	-85	-1	-57	-40	-10	-4	29	-189	1,060
Netherlands	0	0	5	-3	-5	-4	-18	(s)	17	-8	-8
Netherlands Antilles	0	(s)	(s)	15	-5	11	0	-4	40	58	58
Norway	249	7	4	0	(s)	1	-3	(s)	25	34	283
Oman	0	0	0	0	0	0	(s)	(s)	(s)	(s)	(s)
Panama	0	(s)	(s)	(s)	-6	-7	(s)	-1	-1	-15	-15
Peru	30	-1	(s)	(s)	(s)	2	(s)	(s)	1	1	32
Puerto Rico	0	(s)	-2	(s)	-4	(s)	0	6	5	5	5
Romania	0	0	1	0	(s)	0	0	(s)	2	2	2
Russia	12	(s)	1	1	2	24	(s)	(s)	38	66	78
Syria	(s)	0	0	0	0	0	0	(s)	1	1	1
Spain	0	(s)	3	0	-3	(s)	-19	(s)	6	-13	-13
Sweden	0	0	(s)	0	(s)	2	-1	(s)	4	5	5
Thailand	0	(s)	1	1	(s)	(s)	-3	(s)	(s)	-1	-1
Trinidad and Tobago	38	0	1	0	2	7	(s)	(s)	5	14	52
Turkey	0	-2	0	0	(s)	0	-10	(s)	1	-12	-12
United Kingdom	292	4	11	-2	1	7	-2	(s)	53	70	363
Virgin Islands	0	0	125	27	73	39	0	(s)	13	276	276
Yemen	0	0	0	0	0	0	0	0	2	2	2
Other	35	-2	24	4	-33	-21	-29	-5	40	-22	13
Total	8,558	117	270	97	59	109	-229	-19	811	1,215	9,773
Persian Gulf ^d	2,340	(s)	42	3	7	(s)	-4	(s)	56	103	2,443

^a Includes crude oil imported for storage in the Strategic Petroleum Reserve.

^b Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other hydrocarbons and oxygenates, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

^c Formerly Zaire.

^d Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-814, "Monthly Imports Report" and the U.S. Bureau of the Census.

**Table 51. Stocks of Crude Oil and Petroleum Products by PAD District,
October 1999**
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Crude Oil	13,542	62,079	727,597	11,851	60,639	875,708
Refinery	12,869	12,867	51,264	1,923	20,510	99,433
Tank Farms and Pipelines	653	48,327	90,498	9,143	31,475	180,096
Leases	20	885	13,565	785	885	16,140
Strategic Petroleum Reserve ^a	0	0	572,270	0	0	572,270
Alaskan In Transit	0	0	0	0	7,769	7,769
Total Stocks, All Oils (excluding Crude Oil)	180,995	161,455	257,206	14,833	89,196	703,685
Refinery	58,832	57,110	136,832	9,379	60,268	322,421
Bulk Terminal	92,768	64,557	70,067	2,342	21,883	251,617
Pipeline	29,332	37,989	47,748	2,794	6,827	124,690
Natural Gas Processing Plant	63	1,799	2,559	318	218	4,957
Pentanes Plus	19	1,834	5,967	215	68	8,103
Refinery	0	210	275	21	0	506
Bulk Terminal	12	1,011	3,890	0	49	4,962
Pipeline	0	494	1,247	66	0	1,807
Natural Gas Processing Plant	7	119	555	128	19	828
Liquefied Petroleum Gases	7,509	39,975	60,296	1,246	6,120	115,146
Refinery	1,933	5,234	11,246	451	1,953	20,817
Bulk Terminal	3,034	25,395	34,757	137	3,968	67,291
Pipeline	2,486	7,666	12,289	468	0	22,909
Natural Gas Processing Plant	56	1,680	2,004	190	199	4,129
Ethane/Ethylene	0	3,541	14,936	216	7	18,700
Refinery	0	2	615	0	0	617
Bulk Terminal	0	1,519	10,851	0	7	12,377
Pipeline	0	1,783	3,087	212	0	5,082
Natural Gas Processing Plant	0	237	383	4	0	624
Propane/Propylene	5,638	26,188	21,560	554	2,308	56,248
Refinery	771	2,209	3,133	172	118	6,403
Bulk Terminal	2,427	18,822	12,779	135	2,030	36,193
Pipeline	2,409	4,012	5,210	144	0	11,775
Natural Gas Processing Plant	31	1,145	438	103	160	1,877
Normal Butane/Butylene	1,626	8,509	19,102	358	3,273	32,868
Refinery	925	2,603	6,230	217	1,475	11,450
Bulk Terminal	607	4,263	9,067	2	1,780	15,719
Pipeline	77	1,454	3,283	72	0	4,886
Natural Gas Processing Plant	17	189	522	67	18	813
Isobutane/Isobutylene	245	1,737	4,698	118	532	7,330
Refinery	237	420	1,268	62	360	2,347
Bulk Terminal	0	791	2,060	0	151	3,002
Pipeline	0	417	709	40	0	1,166
Natural Gas Processing Plant	8	109	661	16	21	815
Other Hydrocarbons/Hydrogen/Oxygenates	1,984	3,164	6,391	221	2,945	14,705
Refinery	1,741	534	2,473	76	1,935	6,759
Bulk Terminal	243	2,603	3,675	125	515	7,161
Pipeline	0	27	243	20	495	785
Other Hydrocarbons/Hydrogen	0	13	1	0	4	18
Refinery	0	13	1	0	4	18
Fuel Ethanol	177	2,831	1,072	148	617	4,845
Refinery	W	410	W	W	W	629
Bulk Terminal ^b	W	W	W	W	W	W
Pipeline	W	W	W	W	W	W
ETBE	W	W	W	W	W	W
Refinery	W	W	W	W	W	W
Bulk Terminal ^b	W	W	W	W	W	W
Pipeline	W	W	W	W	W	W
Methanol	W	W	W	W	W	907
Refinery	W	W	W	W	W	907

See footnotes at end of table.

**Table 51. Stocks of Crude Oil and Petroleum Products by PAD District,
October 1999 (Continued)**
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
MTBE	1,436	W	4,270	W	2,312	8,379
Refinery	1,330	W	1,841	W	1,840	5,092
Bulk Terminal ^b	W	W	2,186	W	0	2,545
Pipeline	W	W	243	W	472	742
Other Oxygenates ^c	W	W	W	W	W	W
Refinery	W	W	W	W	W	W
Bulk Terminal ^b	W	W	W	W	W	W
Pipeline	W	W	W	W	W	W
Unfinished Oils	10,932	13,769	44,256	2,507	19,233	90,697
Refinery						
Naphthas and Lighter	2,346	3,898	11,833	606	3,483	22,166
Kerosene and Light Gas Oils	2,799	1,802	6,843	416	4,152	16,012
Heavy Gas Oils	4,183	5,443	16,874	1,015	8,406	35,921
Residuum	1,604	2,626	8,706	470	3,192	16,598
Motor Gasoline Blending Components	7,477	10,789	15,274	1,465	7,421	42,426
Refinery	7,272	8,665	13,419	1,465	6,495	37,316
Bulk Terminal	136	609	1,393	0	250	2,388
Pipeline	69	1,515	462	0	676	2,722
Aviation Gasoline Blending Components	123	25	31	0	2	181
Refinery	123	25	31	0	2	181
Finished Motor Gasoline	50,285	40,352	44,144	4,713	19,333	158,827
Refinery	9,395	8,295	18,932	2,193	9,510	48,325
Bulk Terminal	26,224	17,191	8,985	1,198	7,361	60,959
Pipeline	14,666	14,866	16,227	1,322	2,462	49,543
Reformulated	18,083	1,727	10,195	0	9,890	39,895
Refinery	5,812	149	4,632	0	5,040	15,633
Bulk Terminal	8,893	1,182	1,835	0	3,687	15,597
Pipeline	3,378	396	3,728	0	1,163	8,665
Oxygenated	119	615	76	228	296	1,334
Refinery	5	328	0	97	0	430
Bulk Terminal	114	193	1	131	296	735
Pipeline	0	94	75	0	0	169
Other	32,083	38,010	33,873	4,485	9,147	117,598
Refinery	3,578	7,818	14,300	2,096	4,470	32,262
Bulk Terminal	17,217	15,816	7,149	1,067	3,378	44,627
Pipeline	11,288	14,376	12,424	1,322	1,299	40,709
Finished Aviation Gasoline	175	404	368	31	497	1,475
Refinery	54	146	314	27	295	836
Bulk Terminal	121	219	54	4	202	600
Pipeline	0	39	0	0	0	39
Naphtha-Type Jet Fuel	0	0	14	0	22	36
Refinery	0	0	2	0	15	17
Bulk Terminal	0	0	12	0	7	19
Pipeline	0	0	0	0	0	0
Kerosene-Type Jet Fuel	12,145	7,840	14,541	761	8,933	44,220
Refinery	2,845	2,817	6,656	335	4,707	17,360
Bulk Terminal	4,051	2,188	1,389	273	2,903	10,804
Pipeline	5,249	2,835	6,496	153	1,323	16,056

See footnotes at end of table.

**Table 51. Stocks of Crude Oil and Petroleum Products by PAD District,
October 1999 (Continued)**
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Kerosene	3,080	1,540	1,656	96	113	6,485
Refinery	253	389	836	56	79	1,613
Bulk Terminal	2,558	1,077	482	0	17	4,134
Pipeline	269	74	338	40	17	738
Distillate Fuel Oil	62,964	28,526	31,438	2,504	12,183	137,615
Refinery	14,451	8,236	15,907	1,194	6,588	46,376
Bulk Terminal	41,920	9,821	5,095	592	3,886	61,314
Pipeline	6,593	10,469	10,436	718	1,709	29,925
0.05 Percent Sulfur and Under	16,892	20,903	19,447	2,162	9,231	68,635
Refinery	2,295	5,407	9,292	938	4,839	22,771
Bulk Terminal	11,799	7,157	3,289	522	2,762	25,529
Pipeline	2,798	8,339	6,866	702	1,630	20,335
Greater than 0.05 Percent Sulfur	46,072	7,623	11,991	342	2,952	68,980
Refinery	12,156	2,829	6,615	256	1,749	23,605
Bulk Terminal	30,121	2,664	1,806	70	1,124	35,785
Pipeline	3,795	2,130	3,570	16	79	9,590
Residual Fuel Oil^d	17,347	1,900	14,175	391	6,551	40,364
Refinery	6,294	1,475	6,566	391	4,591	19,317
Bulk Terminal	11,053	425	7,609	0	1,815	20,902
Pipeline	0	0	0	0	145	145
Less than 0.31% Sulfur	3,730	145	1,349	28	817	6,069
Refinery	1,341	0	85	28	817	2,271
Bulk Terminal	2,389	145	1,264	0	0	3,798
0.31 to 1.00% Sulfur	8,260	265	3,355	121	2,101	14,102
Refinery	3,512	204	805	121	1,799	6,441
Bulk Terminal	4,748	61	2,550	0	302	7,661
Greater than 1.00% Sulfur	5,357	1,490	9,471	242	3,488	20,048
Refinery	1,441	1,271	5,676	242	1,975	10,605
Bulk Terminal	3,916	219	3,795	0	1,513	9,443
Naphtha for Petrochemical Feedstock Use	391	273	1,063	0	138	1,865
Refinery	391	273	1,063	0	138	1,865
Other Oils for Petrochemical Feedstock Use	0	64	2,116	0	198	2,378
Refinery	0	64	2,116	0	198	2,378
Special Naphthas	91	379	1,691	6	36	2,203
Refinery	69	371	1,482	6	36	1,964
Bulk Terminal	22	8	209	0	0	239
Lubricants	2,291	1,798	6,142	0	1,653	11,884
Refinery	694	423	4,852	0	1,052	7,021
Bulk Terminal	1,597	1,375	1,290	0	601	4,863
Waxes	299	60	402	27	345	1,133
Refinery	299	60	402	27	345	1,133
Petroleum Coke	373	2,537	3,286	50	1,362	7,608
Refinery	373	2,537	3,286	50	1,362	7,608
Asphalt and Road Oil	3,436	5,986	2,826	581	1,765	14,594
Refinery	1,670	3,447	2,076	579	1,535	9,307
Bulk Terminal	1,766	2,539	750	2	230	5,287
Miscellaneous Products	74	240	1,129	19	278	1,740
Refinery	43	140	642	1	199	1,025
Bulk Terminal	31	96	477	11	79	694
Pipeline	0	4	10	7	0	21
Total Stocks, All Oils	194,537	223,534	984,803	26,684	149,835	1,579,393

^a Crude oil stocks in the Strategic Petroleum Reserve include non-U.S. stocks held under foreign or commercial storage agreements.

^b Includes stocks held by merchant producers.

^c Includes tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers Intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

^d Sulfur content not available for stocks held by pipelines.

W = Withheld to avoid disclosure of individual company data.

Note: Stocks are reported as of the last day of the month.

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," and EIA-816, "Monthly Natural Gas Liquids Report."

Table 52. Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by PAD District and State, October 1999
(Thousand Barrels)

PAD District and State	Motor Gasoline				Kerosene	Distillate Fuel Oil			Residual Fuel	Propane/Propylene
	Total	Reformulated	Oxygenated	Other		Total	0.05% Sulfur and Under	Greater than 0.05% Sulfur		
PAD District I	35,619	14,705	119	20,795	2,811	56,371	14,094	42,277	17,347	3,229
Connecticut	1,064	1,064	0	0	130	6,535	637	5,898	168	W
Delaware, D.C., Maryland	1,643	1,312	0	331	100	3,772	841	2,931	2,854	W
Florida	4,828	0	0	4,828	20	2,365	1,591	774	1,083	68
Georgia	1,977	17	0	1,960	42	1,405	893	512	163	W
Maine, New Hampshire, Vermont	1,503	539	0	964	254	2,248	447	1,801	356	W
Massachusetts	1,057	1,057	0	0	106	4,547	440	4,107	939	W
New Jersey	7,029	5,506	0	1,523	470	16,245	2,240	14,005	5,704	W
New York	3,479	1,396	114	1,969	480	6,776	1,860	4,916	2,928	W
North Carolina	2,273	36	0	2,237	185	1,746	905	841	461	W
Pennsylvania	6,221	1,841	0	4,380	706	5,736	2,118	3,618	1,406	W
Rhode Island	461	461	0	0	W	1,721	240	1,481	W	W
South Carolina	1,251	41	0	1,210	123	1,001	613	388	W	W
Virginia	2,632	1,435	0	1,197	164	2,159	1,180	979	398	W
West Virginia	201	0	5	196	W	115	89	26	W	W
PAD District II	25,486	1,331	521	23,634	1,466	18,057	12,564	5,493	1,900	22,176
Illinois	3,210	605	0	2,605	157	3,809	2,804	1,005	743	865
Indiana	3,227	223	8	2,996	539	2,590	1,549	1,041	160	W
Iowa	969	0	0	969	W	677	508	169	W	W
Kansas, Nebraska	2,845	0	0	2,845	5	1,632	1,411	221	36	14,987
Kentucky	1,346	295	0	1,051	52	772	507	265	W	W
Michigan	2,459	0	0	2,459	160	1,154	878	276	79	3,436
Minnesota	1,692	0	328	1,364	W	1,120	925	195	90	W
Missouri	1,099	89	0	1,010	W	562	392	170	W	W
North Dakota, South Dakota	574	0	2	572	W	488	242	246	W	W
Ohio	3,472	0	0	3,472	329	1,977	1,296	681	198	W
Oklahoma	1,476	0	2	1,474	W	1,276	945	331	96	445
Tennessee	1,550	0	82	1,468	60	799	454	345	206	W
Wisconsin	1,567	119	99	1,349	W	1,201	653	548	42	W
PAD District III	27,917	6,467	1	21,449	1,318	21,002	12,581	8,421	14,175	16,350
Alabama	1,206	24	0	1,182	54	944	664	280	158	96
Arkansas	728	0	0	728	W	597	371	226	W	W
Louisiana	6,492	371	0	6,121	458	5,308	2,321	2,987	5,066	1,659
Mississippi	1,837	0	0	1,837	161	1,606	553	1,053	W	3,841
New Mexico	409	0	1	408	W	184	130	54	8	W
Texas	17,245	6,072	0	11,173	638	12,363	8,542	3,821	8,753	10,655
PAD District IV	3,391	0	228	3,163	56	1,786	1,460	326	391	410
Colorado	783	0	228	555	W	303	274	29	W	W
Idaho	396	0	0	396	W	239	169	70	W	W
Montana	994	0	0	994	W	484	484	0	105	39
Utah	551	0	0	551	W	416	213	203	82	254
Wyoming	667	0	0	667	W	344	320	24	W	59
PAD District V	16,871	8,727	296	7,848	96	10,474	7,601	2,873	6,406	2,308
Alaska	421	0	0	421	W	682	38	644	W	W
Arizona	1,303	105	186	1,012	W	311	295	16	W	W
California	9,475	8,622	109	744	91	6,225	5,540	685	3,852	737
Hawaii	729	0	0	729	W	509	92	417	W	W
Nevada	281	0	0	281	W	154	146	8	W	W
Oregon	1,417	0	1	1,416	W	557	399	158	410	W
Washington	3,245	0	0	3,245	W	2,036	1,091	945	1,063	58
U.S. Total	109,284	31,230	1,165	76,889	5,747	107,690	48,300	59,390	40,219	44,473

W = Withheld to avoid disclosure of individual company data.

Notes: • Stocks are reported as of the last day of the month. • Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," and EIA-816, "Monthly Natural Gas Liquids Report."

Table 53. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, October 1999
(Thousand Barrels)

Commodity	From I to			From II to				From III to	
	II	III	V	I	III	IV	V	I	II
Crude Oil	0	391	0	127	1,037	612	0	0	66,458
Petroleum Products	9,050	455	0	2,696	6,589	3,384	0	95,643	32,624
Pentanes Plus	0	0	0	0	211	0	0	0	892
Liquefied Petroleum Gases	100	0	0	964	4,704	118	0	2,646	4,643
Unfinished Oils	16	295	0	25	0	0	0	0	134
Motor Gasoline Blending Components	48	30	0	0	0	0	0	668	2,457
Finished Motor Gasoline	5,747	0	0	1,093	888	1,123	0	56,687	9,627
Reformulated	0	0	0	0	238	0	0	11,880	2,321
Oxygenated	0	0	0	0	0	29	0	0	0
Other	5,747	0	0	1,093	650	1,094	0	44,807	7,306
Finished Aviation Gasoline	0	0	0	0	0	8	0	120	167
Jet Fuel	354	0	0	19	73	1,069	0	12,789	5,641
Naphtha-Type	0	0	0	0	0	0	0	0	0
Kerosene-Type	354	0	0	19	73	1,069	0	12,789	5,641
Kerosene	13	0	0	11	0	0	0	97	75
Distillate Fuel Oil	2,737	0	0	342	410	1,066	0	19,995	8,214
0.05 percent sulfur and under	2,232	0	0	164	349	1,066	0	13,415	6,956
Greater than 0.05 percent sulfur	505	0	0	178	61	0	0	6,580	1,258
Residual Fuel Oil	0	130	0	15	285	0	0	1,621	18
Petrochemical Feedstocks ^a	35	0	0	0	9	0	0	67	9
Special Naphthas	0	0	0	0	0	0	0	97	117
Lubricants	0	0	0	18	9	0	0	811	491
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	209	0	0	0	45	139
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	9,050	846	0	2,823	7,626	3,996	0	95,643	99,082

Commodity	From III to		From IV to			From V to			
	IV	V	II	III	V	I	II	III	IV
Crude Oil	0	0	2,671	781	0	0	0	1,369	0
Petroleum Products	502	2,849	2,682	3,075	1,067	0	0	60	0
Pentanes Plus	0	0	177	234	0	0	0	0	0
Liquefied Petroleum Gases	0	0	1,592	2,841	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	850	0	0	0	0	0	0	0
Finished Motor Gasoline	392	1,241	570	0	752	0	0	0	0
Reformulated	0	0	0	0	0	0	0	0	0
Oxygenated	0	0	0	0	0	0	0	0	0
Other	392	1,241	570	0	752	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	46	291	1	0	74	0	0	0	0
Naphtha-Type	0	0	0	0	0	0	0	0	0
Kerosene-Type	46	291	1	0	74	0	0	0	0
Kerosene	0	0	6	0	0	0	0	0	0
Distillate Fuel Oil	64	376	336	0	241	0	0	0	0
0.05 percent sulfur and under	64	330	336	0	236	0	0	0	0
Greater than 0.05 percent sulfur	0	46	0	0	5	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0
Petrochemical Feedstocks ^a	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	0
Lubricants	0	91	0	0	0	0	0	60	0
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	502	2,849	5,353	3,856	1,067	0	0	1,429	0

^a Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: Energy Information Administration (EIA) Forms EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," and EIA-817, "Monthly Tanker and Barge Movement Report."

Table 54. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, October 1999
(Thousand Barrels)

Commodity	From I to		From II to			From III to	
	II	III	I	III	IV	I	II
Crude Oil	0	391	127	1,037	612	0	66,458
Petroleum Products	8,900	0	1,364	5,874	3,384	72,005	28,270
Pentanes Plus	0	0	0	211	0	0	892
Liquefied Petroleum Gases	100	0	964	4,704	118	2,390	4,643
Motor Gasoline Blending Components	0	0	0	0	0	224	2,357
Finished Motor Gasoline	5,747	0	364	730	1,123	42,380	7,557
Reformulated	0	0	0	238	0	10,839	1,692
Oxygenated	0	0	0	0	29	0	0
Other	5,747	0	364	492	1,094	31,541	5,865
Finished Aviation Gasoline	0	0	0	0	8	0	95
Jet Fuel	354	0	19	0	1,069	10,378	5,547
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	354	0	19	0	1,069	10,378	5,547
Kerosene	13	0	0	0	0	79	75
Distillate Fuel Oil	2,686	0	17	229	1,066	16,554	7,104
0.05 percent sulfur and under	2,214	0	17	168	1,066	10,821	6,576
Greater than 0.05 percent sulfur	472	0	0	61	0	5,733	528
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	8,900	391	1,491	6,911	3,996	72,005	94,728

Commodity	From III to		From IV to			From V to	
	IV	V	II	III	V	III	IV
Crude Oil	0	0	2,671	781	0	1,369	0
Petroleum Products	502	2,758	2,682	3,075	1,067	0	0
Pentanes Plus	0	0	177	234	0	0	0
Liquefied Petroleum Gases	0	0	1,592	2,841	0	0	0
Motor Gasoline Blending Components	0	850	0	0	0	0	0
Finished Motor Gasoline	392	1,241	570	0	752	0	0
Reformulated	0	0	0	0	0	0	0
Oxygenated	0	0	0	0	0	0	0
Other	392	1,241	570	0	752	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0
Jet Fuel	46	291	1	0	74	0	0
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	46	291	1	0	74	0	0
Kerosene	0	0	6	0	0	0	0
Distillate Fuel Oil	64	376	336	0	241	0	0
0.05 percent sulfur and under	64	330	336	0	236	0	0
Greater than 0.05 percent sulfur	0	46	0	0	5	0	0
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	502	2,758	5,353	3,856	1,067	1,369	0

Sources: Energy Information Administration (EIA) Forms EIA-812, "Monthly Product Pipeline Report," and EIA-813, Monthly Crude Oil Report."

Table 55. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, October 1999
(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil	0	0	0	0	0	0	0	0
Petroleum Products	150	455	0	1,332	715	0	23,638	1,304
Liquefied Petroleum Gases	0	0	0	0	0	0	256	0
Unfinished Oils	16	295	0	25	0	0	0	0
Motor Gasoline Blending Components	48	30	0	0	0	0	444	0
Finished Motor Gasoline	0	0	0	729	158	0	14,307	1,041
Reformulated	0	0	0	0	0	0	1,041	1,041
Oxygenated	0	0	0	0	0	0	0	0
Other	0	0	0	729	158	0	13,266	0
Finished Aviation Gasoline	0	0	0	0	0	0	120	15
Jet Fuel	0	0	0	0	73	0	2,411	0
Naphtha-Type	0	0	0	0	0	0	0	0
Kerosene-Type	0	0	0	0	73	0	2,411	0
Kerosene	0	0	0	11	0	0	18	0
Distillate Fuel Oil	51	0	0	325	181	0	3,441	248
0.05 percent sulfur and under	18	0	0	147	181	0	2,594	0
Greater than 0.05 percent sulfur	33	0	0	178	0	0	847	248
Residual Fuel Oil	0	130	0	15	285	0	1,621	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	202	0
Greater than 1.00 percent sulfur	0	130	0	15	285	0	1,419	0
Petrochemical Feedstocks ^a	35	0	0	0	9	0	67	0
Special Naphthas	0	0	0	0	0	0	97	0
Lubricants	0	0	0	18	9	0	811	0
Waxes	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	209	0	0	45	0
Miscellaneous Products	0	0	0	0	0	0	0	0
Total	150	455	0	1,332	715	0	23,638	1,304

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	0	0	0	0	0	0	0
Petroleum Products	1,183	21,151	4,354	91	0	0	60
Liquefied Petroleum Gases	0	256	0	0	0	0	0
Unfinished Oils	0	0	134	0	0	0	0
Motor Gasoline Blending Components	417	27	100	0	0	0	0
Finished Motor Gasoline	43	13,223	2,070	0	0	0	0
Reformulated	0	0	629	0	0	0	0
Oxygenated	0	0	0	0	0	0	0
Other	43	13,223	1,441	0	0	0	0
Finished Aviation Gasoline	21	84	72	0	0	0	0
Jet Fuel	0	2,411	94	0	0	0	0
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	0	2,411	94	0	0	0	0
Kerosene	0	18	0	0	0	0	0
Distillate Fuel Oil	0	3,193	1,110	0	0	0	0
0.05 percent sulfur and under	0	2,594	380	0	0	0	0
Greater than 0.05 percent sulfur	0	599	730	0	0	0	0
Residual Fuel Oil	240	1,381	18	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	202	0	0	0	0	0
Greater than 1.00 percent sulfur	240	1,179	18	0	0	0	0
Petrochemical Feedstocks ^a	0	67	9	0	0	0	0
Special Naphthas	33	64	117	0	0	0	0
Lubricants	429	382	491	91	0	0	60
Waxes	0	0	0	0	0	0	0
Asphalt and Road Oil	0	45	139	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	1,183	21,151	4,354	91	0	0	60

^a Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Source: Energy Information Administration (EIA) Form EIA-817, "Monthly Tanker and Barge Movement Report."

Table 56. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, October 1999
(Thousand Barrels)

Commodity	PAD District I			PAD District II		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	127	391	-264	69,129	1,776	67,353
Petroleum Products	98,339	9,505	88,834	44,356	12,669	31,687
Pentanes Plus	0	0	0	1,069	211	858
Liquefied Petroleum Gases	3,610	100	3,510	6,335	5,786	549
Ethane/Ethylene	0	0	0	928	2,759	-1,831
Propane/Propylene	3,464	0	3,464	3,844	2,222	1,622
Normal Butane/Butylene	137	100	37	1,092	602	490
Isobutane/Isobutylene	9	0	9	471	203	268
Unfinished Oils	25	311	-286	150	25	125
Motor Gasoline Blending Components	668	78	590	2,505	0	2,505
Finished Motor Gasoline	57,780	5,747	52,033	15,944	3,104	12,840
Reformulated	11,880	0	11,880	2,321	238	2,083
Oxygenated	0	0	0	0	29	-29
Other	45,900	5,747	40,153	13,623	2,837	10,786
Finished Aviation Gasoline	120	0	120	167	8	159
Jet Fuel	12,808	354	12,454	5,996	1,161	4,835
Naphtha-Type	0	0	0	0	0	0
Kerosene-Type	12,808	354	12,454	5,996	1,161	4,835
Kerosene	108	13	95	94	11	83
Distillate Fuel Oil	20,337	2,737	17,600	11,287	1,818	9,469
0.05 percent sulfur and under	13,579	2,232	11,347	9,524	1,579	7,945
Greater than 0.05 percent sulfur	6,758	505	6,253	1,763	239	1,524
Residual Fuel Oil	1,636	130	1,506	18	300	-282
Petrochemical Feedstocks ^a	67	35	32	44	9	35
Special Naphthas	97	0	97	117	0	117
Lubricants	829	0	829	491	27	464
Waxes	0	0	0	0	0	0
Asphalt and Road Oil	254	0	254	139	209	-70
Miscellaneous Products	0	0	0	0	0	0
Total	98,466	9,896	88,570	113,485	14,445	99,040

Commodity	PAD District III			PAD District IV			PAD District V		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	3,578	66,458	-62,880	612	3,452	-2,840	0	1,369	-1,369
Petroleum Products	10,179	131,618	-121,439	3,886	6,824	-2,938	3,916	60	3,856
Pentanes Plus	445	892	-447	0	411	-411	0	0	0
Liquefied Petroleum Gases	7,545	7,289	256	118	4,433	-4,315	0	0	0
Ethane/Ethylene	4,477	322	4,155	0	2,324	-2,324	0	0	0
Propane/Propylene	2,006	5,791	-3,785	86	1,387	-1,301	0	0	0
Normal Butane/Butylene	684	804	-120	32	439	-407	0	0	0
Isobutane/Isobutylene	378	372	6	0	283	-283	0	0	0
Unfinished Oils	295	134	161	0	0	0	0	0	0
Motor Gasoline Blending Components	30	3,975	-3,945	0	0	0	850	0	850
Finished Motor Gasoline	888	67,947	-67,059	1,515	1,322	193	1,993	0	1,993
Reformulated	238	14,201	-13,963	0	0	0	0	0	0
Oxygenated	0	0	0	29	0	29	0	0	0
Other	650	53,746	-53,096	1,486	1,322	164	1,993	0	1,993
Finished Aviation Gasoline	0	287	-287	8	0	8	0	0	0
Jet Fuel	73	18,767	-18,694	1,115	75	1,040	365	0	365
Naphtha-Type	0	0	0	0	0	0	0	0	0
Kerosene-Type	73	18,767	-18,694	1,115	75	1,040	365	0	365
Kerosene	0	172	-172	0	6	-6	0	0	0
Distillate Fuel Oil	410	28,649	-28,239	1,130	577	553	617	0	617
0.05 percent sulfur and under	349	20,765	-20,416	1,130	572	558	566	0	566
Greater than 0.05 percent sulfur	61	7,884	-7,823	0	5	-5	51	0	51
Residual Fuel Oil	415	1,639	-1,224	0	0	0	0	0	0
Petrochemical Feedstocks ^a	9	76	-67	0	0	0	0	0	0
Special Naphthas	0	214	-214	0	0	0	0	0	0
Lubricants	69	1,393	-1,324	0	0	0	91	60	31
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	184	-184	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	13,757	198,076	-184,319	4,498	10,276	-5,778	3,916	1,429	2,487

^a Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: Energy Information Administration (EIA) Forms EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," and EIA-817, "Monthly Tanker and Barge Movement Report."

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

Sub-PAD District I

New England: The States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Central Atlantic: The District of Columbia and the States of Delaware, Maryland, New Jersey, New York, and Pennsylvania.

Lower Atlantic: The States of Florida, Georgia, North Carolina, South Carolina, Virginia and West Virginia.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

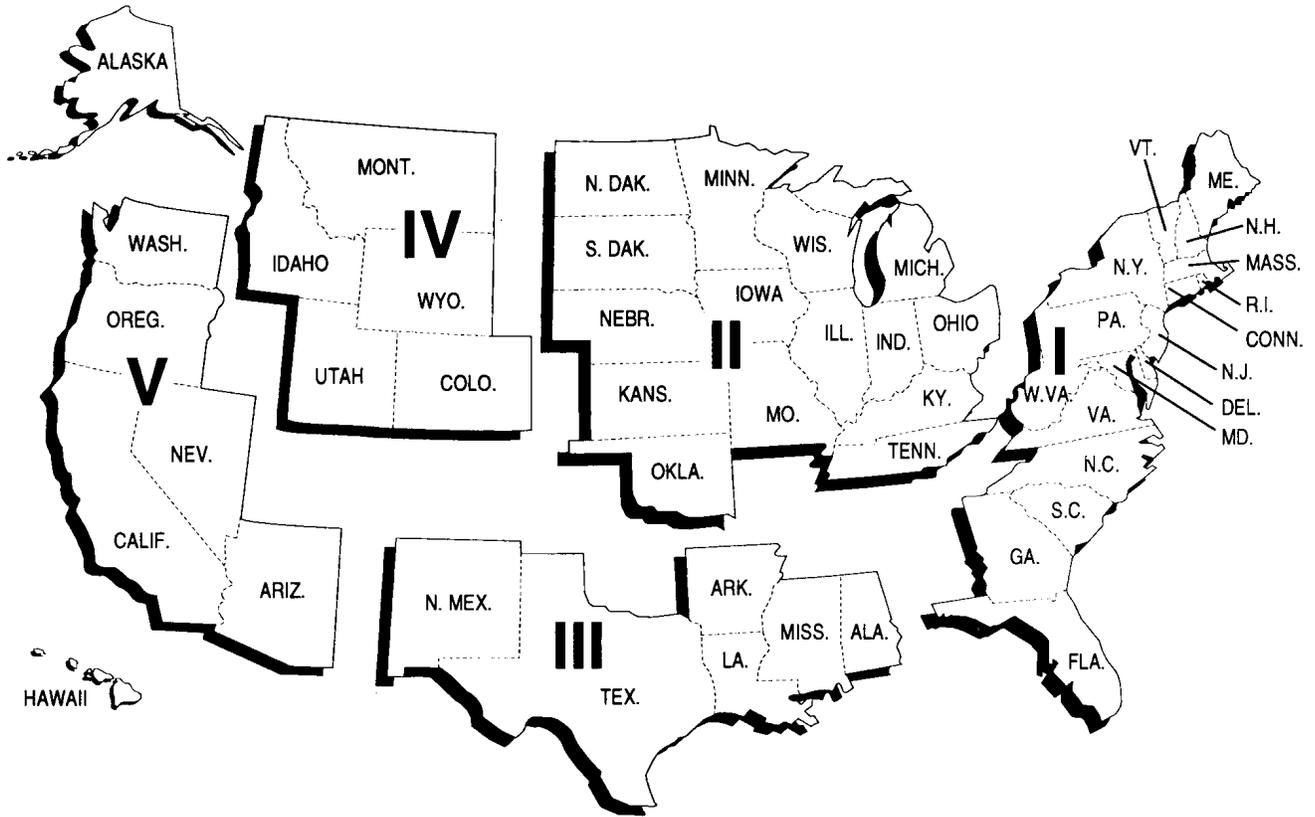
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

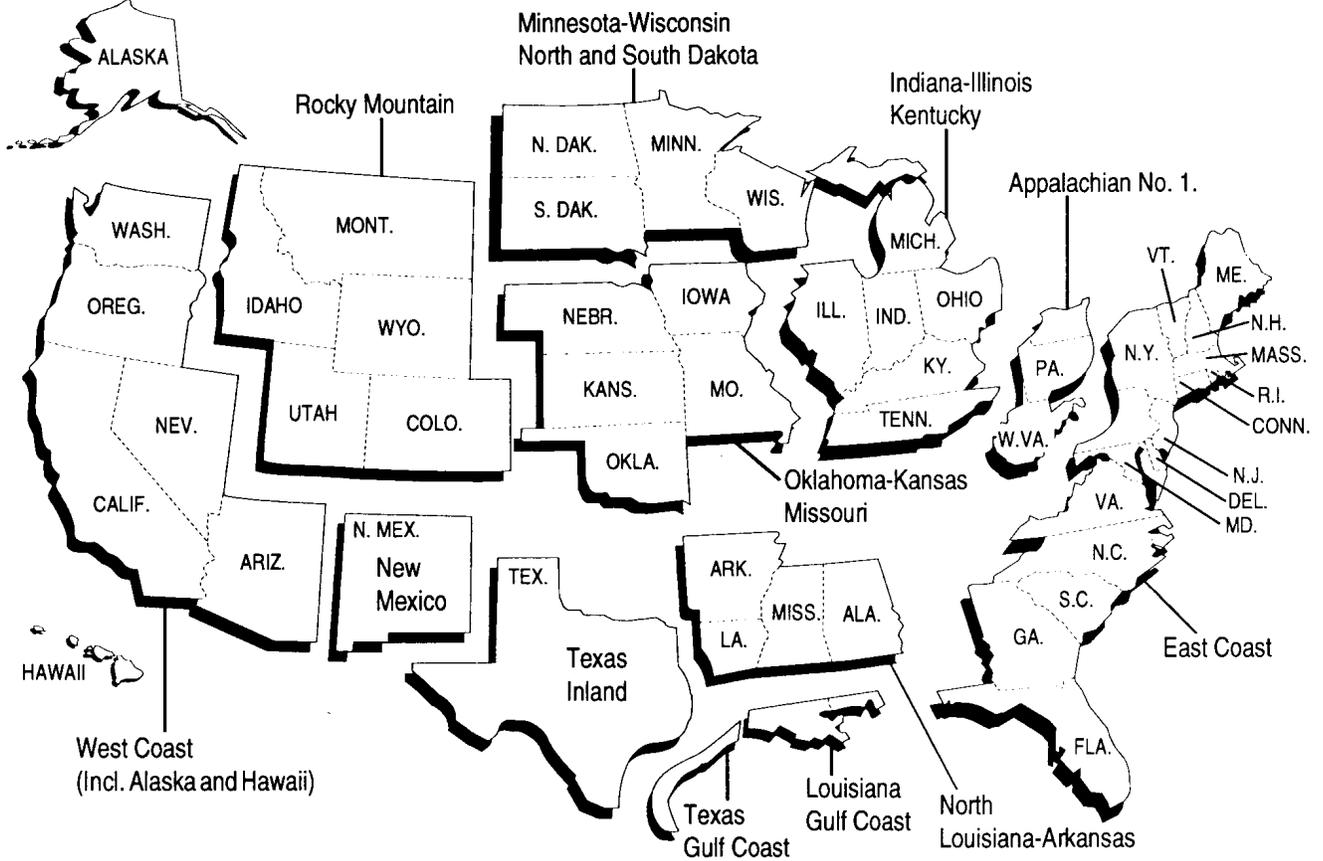
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts



Refining Districts



Explanatory Notes

The following Explanatory Notes are provided to assist in understanding and interpreting the data presented in the Detailed Statistics section of this publication.

- Note 1. Petroleum Supply Reporting System
- Note 2. Monthly Petroleum Supply Reporting System
- Note 3. Technical Notes for Detailed Statistics Tables
- Note 4. Domestic Crude Oil Production
- Note 5. Export Data
- Note 6. Quality Control and Data Revision
- Note 7. Frames Maintenance
- Note 8. Practical Limitations of Data Collection Efforts
- Note 9. 1994 Changes in the Petroleum Supply Monthly

Note 1. Petroleum Supply Reporting System

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems, and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are listed below:

Form Number	Name
EIA-800	“Weekly Refinery Report”
EIA-801	“Weekly Bulk Terminal Report”
EIA-802	“Weekly Product Pipeline Report”
EIA-803	“Weekly Crude Oil Stocks Report”
EIA-804	“Weekly Imports Report”
EIA-807	“Propane Telephone Survey”
EIA-810	“Monthly Refinery Report”
EIA-811	“Monthly Bulk Terminal Report”
EIA-812	“Monthly Product Pipeline Report”
EIA-813	“Monthly Crude Oil Report”
EIA-814	“Monthly Imports Report”
EIA-816	“Monthly Natural Gas Liquids Report”
EIA-817	“Monthly Tanker and Barge Movement Report”
EIA-819M	“Monthly Oxygenate Telephone Report”
EIA-820	“Biennial Refinery Report”

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Data collected from the WPSRS are used to develop estimates of the most current monthly quantities in the Summary Statistics section of the *Petroleum Supply Monthly* (PSM) and which appear in the *Weekly Petroleum Status Report* (WPSR).

The Form EIA-807, “Propane Telephone Survey” is used to collect data on production, stocks, and imports of propane. These data are used to monitor the supply of propane and to report to the Congress and others on supplies when requested. Data are collected from a sample of respondents reporting on the Monthly Petroleum Supply Reporting System (MPSRS) surveys. Data are collected on a weekly basis during the heating season (October through March) and published electronically in the *Winter Fuels Report*. During the non-heating season (April through September) data are collected on end-of-month stocks only. These data are published in the *WPSR*.

Forms EIA-810 through 814, 816, and 817 comprise the MPSRS. These surveys are used to collect detailed refinery/blender and natural gas plant operations data; refinery/blender, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense (PAD) Districts. A description of the MPSRS forms follows in Explanatory Note 2.

Data from these surveys are published in preliminary form in the *PSM*. They are published in final form in the *Petroleum Supply Annual* (PSA), Volumes 1 and 2.

Summary information on the revision error between preliminary and final data is published once a year in the *PSM* feature article entitled, “Accuracy of Petroleum Supply Data.” The last article was published in the September 1996 issue and evaluated the accuracy of the data for the current year compared with the previous year.

The Form EIA-819M, “Monthly Oxygenate Telephone Report,” is used to collect preliminary data on production and stocks of oxygenates by PAD District. These data are

used to monitor the supply of oxygenates. Data are collected from a sample of respondents reporting on the MPSRS surveys and from the universe of oxygenate producers. Data are published in Appendix D of this publication and in the *WPSR*.

The Form EIA-820, “Annual Refinery Report,” is used to collect data on refinery fuel use and consumption of steam and electricity, refinery receipts of crude oil by method of transportation, operable capacity for atmospheric crude oil distillation units and downstream units, as well as production capacity and storage capacity for petroleum products. This survey is the primary source of data in the Refinery Capacity section of the *PSA* Volume 1.

Note 2. Monthly Petroleum Supply Reporting System

The Monthly Petroleum Supply Reporting System (MPSRS) was implemented in January 1983 as the result of an extensive effort by the Energy Information Administration (EIA) to integrate the collection and processing of petroleum supply data that had been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the U.S. Bureau of Mines began collecting data on refinery operations, crude oil stocks and movements. The collection systems were further expanded in 1925 to include natural gas plant liquids production and storage, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS was the first effort to make them all consistent and comparable. The forms that comprise the MPSRS are:

Form Number	Name
EIA-810	“Monthly Refinery Report”
EIA-811	“Monthly Bulk Terminal Report”
EIA-812	“Monthly Product Pipeline Report”
EIA-813	“Monthly Crude Oil Report”
EIA-814	“Monthly Imports Report”
EIA-816	“Monthly Natural Gas Liquids Report”
EIA-817	“Monthly Tanker and Barge Movement Report”
EIA-819M	“Monthly Oxygenate Telephone Report”

Respondent Frame

Form EIA-810, “Monthly Refinery Report” - Operators of all operating and idle petroleum refineries and blending plants located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and other U.S. possessions. Approximately 260 respondents report on the Form EIA-810.

Form EIA-811, “Monthly Bulk Terminal Report” - Every bulk terminal operating company located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and other U.S. possessions. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. In addition, the Form EIA-811 must be completed by merchant oxygenate plants that produce oxygenates. Approximately 320 respondents report on the Form EIA-811.

Form EIA-812, “Monthly Product Pipeline Report” - All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 80 respondents report on the Form EIA-812.

Form EIA-813, “Monthly Crude Oil Report” - All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 175 respondents report on the Form EIA-813.

Form EIA-814, “Monthly Imports Report” - All companies, including subsidiary or affiliated companies, that import crude oil or petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands and other U.S. possessions (Guam, Midway Islands, Wake Island, American Samoa, and Northern Mariana Islands), and (3) from Puerto Rico, the Virgin Islands and other U.S. possessions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia and must be reported. A report is required only if there has been an import during the month unless the importer has been selected as part of a sample to report every month regardless of activity. Approximately 220 respondents report on the Form EIA-814.

Form EIA-816, “Monthly Natural Gas Liquids Report” - Operators of all facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 585 respondents report on the Form EIA-816.

Form EIA-817, “Monthly Tanker and Barge Movement Report” - All companies that have custody of crude oil or petroleum products transported by tanker or barge between Petroleum Administration for Defense (PAD) Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker or barge. Also, companies which lease

vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 40 respondents report on the Form EIA-817.

Form EIA-819M, "Monthly Oxygenate Telephone Report" - The sample of companies that report on the EIA-819M are selected from the universe of companies that report on the MPSRS surveys and from the universe of oxygenate producers. The universe consists of (1) operators of facilities that produce (manufacture or distill) oxygenates (including MTBE plants, petrochemical plants, and refineries that produce oxygenates as part of their operations); (2) operators of petroleum refineries; and (3) operators of bulk terminals, bulk stations, blending plants, and other nonrefinery facilities that store and/or blend oxygenate. Approximately 85 respondents report on the Form EIA-819M.

Sampling

The sampling procedure used for the survey Form EIA-819M is the cut-off method and is performed using software developed by EIA's Office of Statistical Standards. In the cut-off method, companies are ranked from largest to smallest on the basis of quantities reported (oxygenate production and oxygenate stocks.) Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers approximately 90 percent of the total for each oxygenate item and supply type by geographic region (PAD Districts I through V) for which data may be published.

Description of Survey Forms

The Form EIA-810, "Monthly Refinery Report," is used to collect data on refinery input and capacity, sulfur content and API gravity of crude oil, and data on supply (beginning stocks, receipts, and production) and disposition (inputs, shipments, fuel use and losses, and ending stocks) of crude oil and refined products.

The Form EIA-811, "Monthly Bulk Terminal Report," is used to collect data on end-of-month stock levels of finished petroleum products by State in the custody of the bulk terminal company or merchant oxygenate plant regardless of ownership. Leased tankage at other facilities is excluded. All domestic and foreign stocks held at bulk terminals and in-transit thereto, except those in-transit by pipeline are included. Petroleum products in-transit by pipeline are reported by pipeline operators on Form EIA-812, "Monthly Product Pipeline Report."

The Form EIA-812, "Monthly Product Pipeline Report," is used to collect data on end-of-month stock levels and movements of petroleum products transported by pipeline. Intermediate movements for pipeline systems operating in more than two PAD Districts are included.

The Form EIA-813, "Monthly Crude Oil Report," is used to collect data on end-of-month stocks of crude oil held at pipeline and tank farms (associated with the pipelines) and terminals operated by the reporting company. Also, crude oil consumed by pipelines and on leases as pump fuel, boiler fuel, etc., is reported. Data are reported on a PAD District basis.

Total Alaskan crude oil stocks in-transit by water (including stocks held at transshipment terminals between Alaska and the continental United States) to the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands are also reported by the transporting company having custody of the stocks.

Inter-PAD District movements of crude oil by pipeline are collected by the shipping and receiving PAD District. Intermediate movements for pipeline systems operating in more than two PAD Districts are not included.

The Form EIA-814, "Monthly Imports Report," is used to collect data on imports of crude oil and petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands, and other U.S. possessions (Guam, Midway Islands, Wake Island, American Samoa, and Northern Mariana Islands), and (3) from Puerto Rico, the Virgin Islands, and other U.S. possessions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia.

The type of commodity, port of entry, country of origin, quantity (thousand barrels), sulfur percent by weight, API gravity, and name and location of the processing or storage facility are reported. Sulfur percent by weight is requested for crude oil, crude oil burned as fuel, and residual fuel oil only. API gravity is requested for crude oil only. The name and location of the processing or storage facility is requested for crude oil, unfinished oils, other hydrocarbons/hydrogen/oxygenates and blending components only.

The Form EIA-816, "Monthly Natural Gas Liquids Report," is used to collect data on the operations of natural gas processing plants and fractionators. Beginning and end-of-month stocks, receipts, inputs, production, shipments, and plant fuel use and losses during the month are collected from operators of natural gas processing plants. End-of-month stocks are collected from fractionators.

The Form EIA-817, "Monthly Tanker and Barge Movement Report," is used to collect data on the movements of crude oil and petroleum products between PAD Districts. Data are reported by shipping and receiving PAD District and sub-PAD District. Shipments to and from the Panama Canal are also included if the shipment was delivered to the Canal.

The Form EIA-819M, "Monthly Oxygenate Telephone Report," is used to collect data on production and stocks

of oxygenates. Data on end-of-month stocks are reported on a custody basis regardless of ownership. Data are reported on a PAD District basis.

Collection Methods

Except for the EIA-819M, survey forms for the MPSRS can be submitted by mail, facsimile, or electronic transmission. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month. Data collection for the 819M begins on the seventh working day of each month. Data are solicited by telephone or transmitted to the EIA by facsimile. Receipt of the reports are monitored using an automated respondent mailing list. Telephone follow-up calls are made to nonrespondents prior to the publication deadline.

Response Rate

The response rate is generally 98 to 100 percent. Chronic nonrespondents and late filing respondents are contacted in writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the Federal Energy Administration (FEA) Act.

Data Imputation

Imputation is performed for companies that fail to file Forms EIA-810 through 813, 816, and 819M. For such companies, previous monthly values are used for current values.

On the EIA-819M, data are aggregated for each geographic region. Estimation factors, which are derived from the previous year's data, are then applied to each cell to generate published estimates.

Data for nonrespondents on the Forms EIA-814 and 817 are not imputed because these data series, by respondent, are highly variable.

Confidentiality

The Office of Legal Counsel of the Department of Justice concluded on March 20, 1991, that the Federal Energy Administration Act requires the EIA to provide company-specific data to the Department of Justice, or to any Federal agency when requested for official use, which may include enforcement of Federal law. The information contained on this form may also be made available, upon request, to another component of the Department of Energy (DOE), to any Committee of Congress, the General Accounting Office, or other Congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.

The information contained on Forms EIA-810 through 813, 816, 817, and 819M are kept confidential and not disclosed to the public to the extent that they satisfy the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. 552, the Department of Energy (DOE) regulations, 10 C.F.R. 1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. 1905. The information contained on Form EIA-814 are not considered confidential and historically has not been treated as such.

Upon receipt of a request for this information under the FOIA, the DOE shall make a final determination whether the information is exempt from disclosure in accordance with the procedures and criteria provided in the regulations. To assist us in this determination, respondents should demonstrate to the DOE that, for example, their information contains trade secrets or commercial or financial information whose release would be likely to cause substantial harm to their company's competitive position. A letter accompanying the submission that explains (on an element-by-element basis) the reasons why the information would be likely to cause the respondent substantial competitive harm if released to the public would aid in this determination. A new justification does not need to be provided each time information is submitted on the form, if the company has previously submitted a justification for that information and the justification has not changed. Company specific data are also provided to other DOE offices for the purpose of examining operations in the context of emergency response planning and actual emergencies.

The data collected on Forms EIA-810 through 814, 816, and 817 appear in EIA publications such as *Petroleum Supply Monthly* (PSM), *Monthly Energy Review*, *Petroleum Supply Annual* (PSA), and the *Annual Energy Review*.

Data on the breakdown between liquefied refinery gases and olefins, and lubricants is suppressed on PSM Table 29, "Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts" and the corresponding PSA table to avoid disclosure of company identifiable data.

Statistics representing data aggregated from less than three companies or aggregated data representing 60 percent or more of a single company's data are suppressed on the PSM and corresponding PSA tables listed below. In addition, complementary suppression is performed to avoid any residual disclosure.

- Table 28, “Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts,” (inputs of oxygenates)
- Table 30, “Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts,” (stocks of oxygenates)
- Table 51, “Stocks of Crude Oil and Petroleum Products by PAD District,” (stocks of oxygenates)
- Table 52, “Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products,” (all products)
- Table D2, “Monthly Fuel Ethanol Production and Stocks by PAD Districts,” and
- Table D3, “Monthly MTBE Production and Stocks by PAD Districts.”

With the exception of the tables listed above, the tables in the *PSM* (and corresponding *PSA* tables) are not subject to statistical nondisclosure procedures. Thus, there may be some table cells which are based on data from only one or two respondents, or which are dominated by data from one or two large respondents. In these cases, it may be possible for a knowledgeable user of the data to make inferences about the data reported by a specific respondent.

Note 3. Technical Notes for Detailed Statistics Tables

The detailed statistics tables in the *Petroleum Supply Monthly* (*PSM*) provide complete supply and demand information for the current year. The tables are organized to locate National and Petroleum Administration for Defense (*PAD*) District summary data at the front followed by tables on crude oil and petroleum product production, import/export data, stocks information, and lastly, data on crude oil and petroleum product movements. To assist in the interpretation of these tables, the following technical notes are provided. Column and row headings are defined in the Glossary.

Supply

Field Production - Field production is the sum of crude oil production, natural gas plant liquids production, other liquids production, and finished petroleum products production.

Crude oil production is an estimate based on data received from State conservation agencies and the Mineral Management Service of the U.S. Department of the Interior. Refer to Explanatory Note 4 for further details.

Field production of natural gas plant liquids is reported on Form EIA-816 and published on a net basis (i.e., production minus inputs) in this column.

Other liquids field production is calculated by forcing the product supplied to be zero; thereby backing into field production.

Field production of finished petroleum products is calculated by (1) adding the amount of fuel ethanol that has been blended into finished motor gasoline, and (2) plus (+) or minus (-) the field production of motor gasoline blending components. Refer to Explanatory Note 8 for a further discussion of this calculation.

Negative field production of motor gasoline blending components represents an understatement for finished motor gasoline.

Negative field production of other finished motor gasoline represents an overstatement of other finished motor gasoline and an understatement of oxygenated motor gasoline.

Refinery Production - Published production of these products equal refinery production minus refinery input. Refinery production of other hydrocarbons, hydrogen and oxygenates, unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input. Negative refinery production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Unaccounted for Crude Oil - This column is a balancing item for crude oil. This data element represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production and imports. Crude oil disposition is the sum of stock change, losses, refinery inputs, exports, and products supplied. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems). A negative result indicates that more crude oil was reported to have been supplied to refiners and exporters than they reported to have used.

Disposition

Stock Change - This column is calculated as the difference between the Ending Stocks column of this table and the Ending Stocks column of this table in the prior month’s publication. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Crude Losses - The volume of crude oil reported by petroleum refineries as being lost in their operations. These losses are due to spills, contamination, fires, etc., as opposed to refining processing losses or gains.

Refinery Inputs - Refinery inputs of crude oil and intermediate materials (unfinished oils, gasoline blending components, other hydrocarbons and oxygenates, lique-

fied petroleum gases, and pentanes plus) that are processed at refineries to produce finished petroleum products.

Crude oil inputs represents total crude oil (domestic and foreign) input to atmospheric crude oil distillation units and other refinery processing units (i.e., catalytic cracking units, cokers).

Inputs of natural gas liquids are natural gas liquids received from natural gas plants for blending and processing. Published inputs of natural gas liquids are reported on a gross basis.

Inputs of unfinished oils, motor and aviation gasoline blending components, and other hydrocarbons and oxygenates are published on a net basis (i.e., refinery input minus refinery production).

Inputs of finished petroleum products are published on a net basis (i.e., refinery production minus refinery inputs) and displayed under the refinery production column.

Exports - Exports include crude oil shipments from the 50 States to Puerto Rico, and the Virgin Islands.

Products Supplied - Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts on a PAD District basis), minus stock change, minus crude losses, minus refinery inputs, minus exports.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production not having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel. Prior to January 1983, crude oil burned on leases and by pipelines as fuel were reported as either distillate or residual fuel oil and were included in product supplied for these products.

Yields

The refinery yield of finished motor gasoline is calculated by subtracting the inputs of pentanes plus, liquefied petroleum gases, other hydrocarbons/oxygenates and motor gasoline blending components from the production of finished motor gasoline before dividing by the sum of crude oil input and unfinished oils input (net).

The refinery yield of finished aviation gasoline is calculated by subtracting the inputs of aviation gasoline blending components from the production of finished aviation gasoline before dividing by the sum of crude oil input and unfinished oils input (net).

Refinery yields for all products (except finished motor gasoline and finished aviation gasoline) are calculated by dividing the production for each product by the sum of crude oil input and unfinished oils input (net) reported in the U.S. total.

Stocks

Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers.

Movements

Movements of crude oil by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate, and intracompany pipelines). Intermediate movements for crude oil pipeline systems operating in more than two PAD Districts are not included.

Movements of petroleum products by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate and intracompany pipelines). Intermediate movements for product pipeline systems operating in more than two PAD Districts are included. For example, a shipment originating in PAD District 3, passing through PAD District 2 to PAD District 1, is reported as a movement from PAD District 3 to PAD District 2 and also from PAD District 2 to PAD District 1.

Waterborne movements of crude oil and petroleum products between PAD Districts include all shipments of crude oil or petroleum products for which the transporter has custody at the time of shipment. Custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker and barge.

Note 4. Domestic Crude Oil Production

The Energy Information Administration (EIA) collects monthly crude oil production data on an ongoing basis. Data on crude oil production for States are reported to the EIA by State government agencies. Data on crude oil production for Federal offshore areas are reported to the EIA by the Minerals Management Service of the U.S. Department of the Interior and the California Department of Conservation.

Currently, all except four crude oil producing States (Michigan, New York, Ohio, and Pennsylvania) report production on a monthly basis. These four States report crude oil production on an annual basis. Estimates of monthly crude oil production for these four States are made by the EIA using data reported on Form EIA-182,

“Domestic Crude Oil First Purchase Report.” After the end of each calendar year, the monthly crude oil production estimates are updated using annual reports from various State agencies, the Minerals Management Service, and the California Department of Conservation. The final estimate is published in the *Petroleum Supply Annual* (PSA).

Table 26 of this publication provides estimates of crude oil production in the latest month for which most State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares a weekly crude oil production estimate, which is used in the *Weekly Petroleum Status Report* (WPSR). At the end of the production month, these weekly estimates are aggregated into an original estimate of monthly crude oil production. Approximately 45 days later, this original estimate is replaced by State-level interim estimates. The State-level interim estimates are based on: (a) data reported by the States (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, “Domestic Crude Oil First Purchase Report;” (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Table B1 is intended to provide further insight into the EIA’s estimates of monthly U.S. crude oil production. It shows: (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is a monthly aggregate of the weekly crude oil production estimates published in the *WPSR*. This original monthly estimate is used in the *Petroleum Supply Monthly* (PSM) Tables S1 and S2 until replaced by the interim estimate.
- The interim estimate is used in the *PSM* Tables 1 through 25, and in Tables S1 and S2 until replaced by the final estimate.
- The initial estimate based upon first purchase data collected on the Form EIA-182 is used as an estimation tool in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the production month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available about 70 days after the production month and includes imputation as needed. A final revision is published concurrent

with publication of Form EIA-182 price data in the *Petroleum Marketing Annual*.

- The final estimate is published in the *PSA*.

Note 5. Export Data

Each month the Energy Information Administration (EIA) receives magnetic tapes of aggregated export statistics from the U.S. Bureau of the Census (EM-522 and EM-594).

Census export statistics used in the *Petroleum Supply Monthly* (PSM) reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

- (1) Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
- (2) Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the U.S. Bureau of the Census. Exporters are required to file export documents with U.S. Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 6. Quality Control and Data Revision

Quality Control

The Energy Information Administration (EIA) monitors the supply and disposition of crude oil, petroleum products, and natural gas liquids in the United States. Through a tracking system, the EIA provides insight into the activities of primary operators and distributors in the petroleum industry. The tracking system, known as the Petroleum Supply Reporting System (PSRS), consists of production,

Table B1. U.S. Crude Oil^a Production Estimates and Reported States^b Data by Month
(Thousand Barrels per Day)

Date of Data Availability	Month of Production																		
	6-98	7-98	8-98	9-98	10-98	11-98	12-98	1-99	2-99	3-99	4-99	5-99	6-99	7-99	8-99	9-99	10-99	11-99	
Reported State Data																			
8-14-98	1184	0																	
9-14-98	1529	1159	0																
10-14-98	4028	1512	1136	0															
11-14-98	5331	4005	1309	1108	0														
12-14-98	5404	4044	3731	1331	1236	0													
1-14-99	5453	5383	3954	3858	1361	1171	0												
2-14-99	5568	5507	5481	4073	4077	1475	1171	0											
3-14-99	5602	5531	5550	4159	4078	4047	1460	1167	0										
4-14-99	5831	5783	5768	5243	5512	4361	4159	1380	1107	0									
5-14-99	6267	6194	6203	5789	6143	6140	6043	3665	1352	1144	0								
6-14-99	6265	6092	6212	5762	6118	6109	6017	3925	2661	1685	1137	0							
7-14-99	6260	6187	6172	5756	6058	6041	6018	4018	3950	1756	1519	1185	0						
8-14-99	6260	6189	6172	5756	6058	6041	6018	5196	3953	3924	2521	1579	1067	0					
9-14-99	6196	6190	6120	5698	6059	5992	5984	5828	5787	5644	5489	5093	2591	1416	0				
10-14-99	6211	6190	6186	5771	6074	6061	6046	5833	5835	5743	5664	5522	5106	1648	1422	0			
11-14-99	6211	6190	6209	5803	6107	6094	6082	5834	5836	5755	5730	5624	4180	3833	1656	1032	0		
12-14-99	6211	6190	6186	5772	6075	6062	6052	5834	5836	5755	5730	5636	4226	4004	3853	1266	1163	0	
Producing States Without Reported Monthly Production																			
12-14-99	0	0	0	0	0	0	0	0	0	0	0	0	0	10	11	19	23	28	33
Production Estimates																			
Estimate																			
Original ^c	6333	6349	6331	6299	6396	6399	6403	5950	5862	5888	5798	5839	5844	5891	5971	5911	6100	6077	
Interim ^d	6290	6322	6276	6069	6270	6189	5967	5954	5984	6048	5977	5985	5880	5873	5912	5820	5878		
Revised.....	6252	6193	6193	5918	6152	6072													
Form EIA-182																			
Initial	5550	5516	5418	5184	5306	5070	5192	5119	5327	5161	5072	5078	4879	5016	5068	4996	5195		
Revised....	5550	5519	5417	5157	5217	5234	5151	5254	5126	5170	5105	5082	4885	5055	5072	5003			
Final ^e	6267	6194	6203	5789	6143	6140	6043												

^a Includes lease condensate.

^b Includes Federal offshore areas, Gulf of Mexico (PADD III) and Pacific (PADD V), as two separate reporting entities.

^c Original estimates are weighted averages based on the weekly estimates published in the *Weekly Petroleum Status Report*.

^d Interim estimates were made 44 days after the end of the production month.

^e Published in the *Petroleum Supply Annual* 1998, DOE/EIA 0340(98)/2.

inputs, imports, inventories, movements, and other petroleum-related data collected on weekly, monthly, and annual surveys.

Survey forms are periodically reviewed for completeness, meaningfulness, and clarity. Modifications are made, when needed, to maintain efficient measure of the intended data items and to track product movement accurately throughout the industry. Through this process, the EIA can maintain consistency among forms, minimize respondent burden, and eliminate ambiguity.

Sampling and Nonsampling Errors

There are two types of errors usually associated with data produced from a survey: nonsampling errors and sampling errors. Because the estimates for the monthly surveys 810 through 813, 816, and 817 are based on a complete census of the frame, there is no sampling error in the data presented. The data, however, are subject to nonsampling errors. Nonsampling errors, sometimes referred to as biases, are those which can arise from a number of sources: (1) the inability to obtain data from all companies in the frame or sample (nonresponse and the method used to account for nonresponses), (2) definitional difficulties and/or improperly worded questions which lead to different interpretations, (3) mistakes in recording or coding the data obtained from respondents, and (4) other errors of collection, response, coverage, and estimation.

Response rates on the monthly surveys are very high. In general, response rates average above 95 percent for the weekly survey and above 98 percent for monthly surveys. Whenever survey responses are not received in time to be included in published statistics, the data are imputed. Although imputing for missing data may not eliminate the total error associated with nonresponse, it can serve to reduce the error. The data reported in the previous month are used as imputed values for missing data for all surveys except the Forms EIA-814, "Monthly Imports Report," and EIA-817, "Monthly Tanker and Barge Movement Report." There is no imputation procedure for these surveys because these data series, by respondent, are highly variable.

Response error is the major factor affecting the accuracy of PSRS data. Response, or reporting error, is the difference between the true value and the value reported on a survey form. Response error can occur for any number of reasons. For example, figures may be entered incorrectly when written on forms by the respondent, or errors may result from the misunderstanding of survey form instructions or definitions. Response error can also occur from the use of preliminary data when final data are not available. This can result in differences between published preliminary and final data. To help detect and minimize probable reporting errors, automated editing procedures are used to check current data for consistency with past data, as well as for internal consistency (e.g., totals equal

to the sums of the parts), and to flag those data elements that fail edit criteria.

Errors can also be introduced during data processing. For example, while creating computer data files, key errors can occur in transcribing or coding the data; or information can be entered into the wrong cell. Using well designed edit criteria which examine orders of magnitude, cell position, and historical reporting patterns, many of these errors can be identified and corrected.

Monthly data are compared to weekly data on a regular basis. Discrepancies between weekly and monthly data are documented and respondents are called when discrepancies are either large (usually over 300 thousand barrels) or consistent (e.g., weekly data are always lower than monthly data). In addition, a comparison of the data collected on the PSRS with other similar data series from sources outside of the Petroleum Division is performed each year. The results of this data comparison are published once a year in the *Petroleum Supply Monthly* (PSM) feature article, "Comparison of Independent Statistics on Petroleum Supply."

Sampling errors are those errors that occur when survey estimates are based on a sample rather than being derived from a complete census of the frame. The 819M data, which are based on sample estimates, serve as leading indicators of the PSRS monthly data for oxygenates. To assess the accuracy of the 819M statistics, data are compared with the monthly aggregate data for the EIA-810, 811, and 812 surveys. Although monthly data are still subject to error, they have been thoroughly reviewed and edited, and are considered to be the most accurate data available.

Data Revision

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by the respondent. Resubmissions are compared with the original submission and processed at the time of receipt. For Forms EIA-810 through 813, 816, and 817 the Resubmission Tracking System (RTS) is run after resubmissions have been processed for the month. The RTS enables the user to study major products and data series to see how company resubmissions impact published data on a month by month basis. During the processing year, a summary of the effect of these resubmissions to major series is provided in Appendix C.

For the EIA-819M data, a determination is made on whether to process the resubmissions based on the magnitude of the revision. Cell entries on publication tables are marked with an "R" for revised.

Late Response

Respondents who fail to respond within the prescribed time limit (25th day following the end of the report month)

become nonrespondents for that particular report period and are contacted by phone to obtain the current month's data. Respondents who are chronically late (i.e., 3 consecutive months) are notified by EIA either by letter or telephone.

Nonresponse

Follow-up action is taken when a company fails to respond adequately to data requests from the EIA. Preliminary attempts to gather delinquent reports are made by phone. Noncompliance form letters are sent to those companies that have not submitted reports and have not responded to data requests by phone.

Note 7. Frames Maintenance

The Petroleum Division (PD) maintains complete lists of respondents to its monthly surveys. Each survey has a list of companies and facilities required to submit petroleum activity data. This list is known as the survey frame. Frame maintenance procedures are used to monitor the status of petroleum companies and facilities currently contained in each survey frame as well as to identify new members to be added to the frame. As a result, all known petroleum supply organizations falling within the definition of "Who Must Submit" participate in the survey.

The activities for frames maintenance are conducted on a monthly and annual basis. Monthly frames maintenance procedures focus on examining several frequently published industry periodicals that report changes in status (births, deaths, sales, and acquisitions) of petroleum facilities producing, transporting, importing, and/or storing crude oil and petroleum products. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems operated by other offices. Survey managers review these sources regularly to monitor changes in company operations and to develop lists of potential respondents. These activities assure coverage of the reporting universe and maintain accurate facility information on addresses and ownership.

Annual frames maintenance focuses on re-evaluating the "must submit" companies filing the Form EIA-814 and reviewing the sample frame for the Form EIA-819M, "Monthly Oxygenate Telephone Report."

To supplement monthly and annual frames maintenance activities and to provide more thorough coverage, the PD periodically conducts a comprehensive frames investigation. These investigations result in the reassessment and recompilation of the complete frame for each survey. The effort also includes the evaluation of the impact of potential frame changes on the historical time series data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Note 8. Practical Limitations of Data Collection Efforts

Crude Oil Lease Stock Adjustment

End-of-month crude oil stocks held on leases are reported on the EIA-813, "Monthly Crude Oil Report." However, only those companies that store 1,000 barrels or more of crude oil are required to submit a report. Previous frames analysis has shown that crude oil stocks held on leases reported to the EIA are consistently lower than the lease stocks reported to individual states.

Up until 1983, monthly state government data on lease stocks were substituted for EIA data wherever possible in order to rectify the understatement of lease crude oil stocks. State data were available from three states — Texas, New Mexico, and Montana. To calculate the "lease adjustment," a comparison between EIA reported data and the state government data was made and the difference added to the EIA data for the respective states.

In 1983, the EIA modified the Form EIA-813 to eliminate state data on crude oil stocks and began collecting crude oil stock data by Petroleum Administration for Defense (PAD) District. With this change, the "lease adjustment" could no longer be calculated on a state basis and was changed to a PAD District level.

Trans Alaskan Pipeline System Adjustment

Beginning with the January 1989 data, adjustments are made to refinery inputs and product supplied of natural gas liquids (NGLs) and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment is made to refinery input in all PAD Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan-NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem which began in 1987 grew as injections on NGLs into the TAPS increased. Data for 1988 was revised in the *Petroleum Supply Annual* to account for the adjustment.

Finished Motor Gasoline Product Supplied Adjustment

Beginning with the reporting of January 1993 data, adjustments were made to the product supplied series for finished motor gasoline. It was recognized that motor gasoline statistics published by the EIA through 1992 were underreported because the reporting system was not collecting all fuel ethanol and motor gasoline blending components being blended downstream from the refinery. The EIA was able to quantify these volumes and make corrective adjustments for 1992 in 1993 (refer to Table B2).

Fuel Ethanol Adjustment

Prior to 1993, an estimated 60 to 70 thousand barrels per day of fuel ethanol were added to motor gasoline to produce gasohol but were not included in the EIA finished motor gasoline production data. In 1992, the EIA attempted to collect these data from downstream fuel ethanol motor gasoline blenders but found that this effort was impractical and the results were inaccurate.

Beginning in January 1993, an estimate for the missing fuel ethanol blended into motor gasoline was calculated. This estimate was calculated as production (from the EIA-819M, "Monthly Oxygenate Telephone Report"), plus imports (from the EIA-814, "Monthly Imports Report"), minus inputs at refineries (from the EIA-810, "Monthly Refinery Report"), plus or minus stock change (from the EIA-819M survey). This estimate for the amount of fuel ethanol blended into motor gasoline was added to Table 1 for Natural Gas Liquids Field Production (line 14) and in the Field Production column for finished motor gasoline in Tables 2 through 25 published in the *PSM*.

An estimate for the total amount of gasohol produced with the ethanol is given as 10 times the estimated fuel ethanol blended (this assumes a 10 percent ethanol blend). This amount is added to the column labeled field production of "oxygenated gasoline" and subtracted from the field production of "other" finished gasoline. The PAD District level detail was obtained by allocating the national level estimates according to the percent of gasohol sales from the U.S. Department of Transportation, Federal Highway Administration, *Monthly Motor Fuel Reported by States*, 1994.

Motor Gasoline Blending Component Adjustment

Prior to 1993, the EIA published a "product supplied" for motor gasoline blending components. Since these compo-

nents are to be blended into finished motor gasoline, there is no actual demand for this intermediate product. The EIA corrected this series by including the quantity of "product supplied" for motor gasoline blending components with "other" finished motor gasoline. This change was accomplished in Tables 2 through 25 by adding product supplied for motor gasoline blending components to the column labeled field production of "other" motor gasoline, and subtracting it from the field production column for "motor gasoline blending components."

Fuel Ethanol Stock Adjustment

Total end-of-month stocks of fuel ethanol are underreported in the PSRS because of the inability to collect data from downstream fuel ethanol motor gasoline blenders. Total stocks of fuel ethanol are assumed to be those reported by ethanol producers on the Form EIA-819M, "Monthly Oxygenate Telephone Report." The difference between the stocks reported on the EIA-819M and the stocks reported in the PSRS (from refiners, bulk terminal and pipeline operators) is added to the stocks shown for bulk terminals. If the stocks for the PSRS are higher than those reported on the EIA-819M, no adjustment is made.

Note 9. 1994 Changes in the Petroleum Supply Monthly

Effective with January 1994 data, several enhancements were made to the tables in the *Petroleum Supply Monthly* to reflect changes in the petroleum industry and to provide more meaningful petroleum statistics. These changes primarily affect data reported for imports, exports, and product supplied.

- On December 31, 1992, Ecuador withdrew as a member of the Organization of Petroleum Exporting Countries (OPEC). As of January 1994, imports of petroleum from Ecuador now appear under imports from Non-OPEC sources. No revision was made to 1993 data. Countries have been realphabetized accordingly. This change is evident in Tables S3 and 35 through 44, 49 and 50.
- Exports data are now published for oxygenates and the sub-categories of finished motor gasoline (reformulated, oxygenated, and other) and distillate fuel oil (0.05% sulfur and under, and greater than 0.05% sulfur).
- Product supplied is now calculated for reformulated, oxygenated, and other finished motor gasoline as well as the sulfur categories of distillate fuel oil (0.05% sulfur and under, and greater than 0.05% sulfur).

**Table B2. Finished Motor Gasoline Product Supplied Adjustment, 1994 - Present
(Thousand Barrels per Day)**

Item/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1994													
Fuel Ethanol Adj.....	86	73	76	71	69	63	65	73	59	90	82	82	74
Motor Gas Blending	33	-7	27	58	51	82	98	98	81	-16	56	113	57
Product Supplied.....	6,980	7,275	7,395	7,564	7,644	7,922	7,884	7,975	7,615	7,548	7,464	7,924	7,601
1995													
Fuel Ethanol Adj.....	66	66	79	74	58	81	49	36	57	72	91	58	65
Motor Gas Blending	8	37	56	86	131	113	46	110	35	89	28	29	64
Product Supplied	7,163	7,481	7,788	7,651	7,894	8,220	7,888	8,187	7,786	7,781	7,866	7,742	7,789
1996													
Fuel Ethanol Adj.....	58	53	49	37	27	14	9	20	23	36	44	38	34
Motor Gas Blending	39	23	-16	14	5	66	2	-18	2	40	53	31	20
Product Supplied.....	7,254	7,552	7,729	7,869	7,998	8,089	8,135	8,216	7,641	8,038	7,875	7,775	7,849
1997													
Fuel Ethanol Adj.....	39	50	51	46	48	38	59	37	47	69	50	61	50
Motor Gas Blending	-20	61	-27	87	73	113	89	95	115	107	165	80	78
Product Supplied.....	7,301	7,668	7,796	8,064	8,139	8,288	8,496	8,233	8,023	8,141	7,965	8,065	8,017
1998													
Fuel Ethanol Adj.....	66	55	61	55	42	50	49	58	62	71	55	75	58
Motor Gas Blending	84	39	117	140	142	246	111	88	171	89	145	205	132
Product Supplied.....	7,618	7,711	8,004	8,312	8,279	8,520	8,680	8,568	8,310	8,378	8,167	8,451	8,253
1999													
Fuel Ethanol Adj.....	56	51	48	48	51	60	43	54	55	64			
Motor Gas Blending	31	-110	-92	51	18	147	124	180	91	222			
Product Supplied.....	7,630	8,091	8,081	8,389	8,233	8,752	8,783	8,583	8,350	8,528			

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

Source: • Fuel Ethanol Adjustment — 1994 -1997, Energy Information Administration (EIA), *Petroleum Supply Annual* (PSA), Volumes I and II (Table 3, Motor gasoline field production minus motor gasoline blending component field production); 1998 —, EIA, *Petroleum Supply Monthly* (PSM), (Table 4). • Motor Gasoline Blending Component Adjustment — 1994 - 1997, EIA, *PSA*, Volumes I and II (Table 3; Motor gasoline blending component field adjustment) 1997 —, EIA, *PSM* (Table 4).

Table C1. Impact of Resubmissions on Major Series, 1999
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June	
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference
Inputs.....	15,625	-152	15,538	-163	15,391	-83	16,320	13	16,520	42	16,439	24
Crude Oil	14,483	-62	14,430	-94	14,495	2	15,039	52	14,946	26	14,943	16
Pentanes Plus	140	1	128	(s)	132	(s)	121	-3	140	0	132	(s)
LPGs	315	-5	258	-6	228	-4	200	(s)	194	0	177	(s)
Ethane/Ethylene.....	0	0	0	0	0	0	0	0	0	0	0	0
Propane/Propylene	0	0	0	0	0	0	0	0	0	0	0	0
Normal Butane/Butylene	210	-4	161	-4	108	-4	64	(s)	67	0	56	(s)
Isobutane/Isobutylene	106	-1	97	-2	120	0	136	(s)	128	0	120	0
Oth Hydrocbns/Oxygenates	364	-6	345	-1	362	-4	371	-4	372	1	362	1
Unfinished Oils	319	3	237	-2	-84	-6	366	11	704	(s)	623	-7
Motor Gas. Blend. Comp.....	8	-83	144	-59	263	-72	226	-43	166	16	203	15
Aviation Gas. Blend. Comp	-4	0	-3	0	-5	0	-3	(s)	-3	0	-1	0
Production	18,587	-156	18,515	-142	18,319	-112	19,293	32	19,547	51	19,569	49
Pentanes Plus	279	0	287	(s)	304	1	288	3	293	3	301	4
LPGs	1,885	-10	1,986	-6	2,141	2	2,373	21	2,344	21	2,367	55
Ethane/Ethylene.....	592	-4	622	(s)	650	1	678	7	663	10	699	18
Propane/Propylene	1,041	-2	1,047	-2	1,023	-1	1,078	6	1,091	6	1,086	29
Normal Butane/Butylene	69	1	112	-3	277	2	385	7	378	4	372	7
Isobutane/Isobutylene	183	-4	204	(s)	191	(s)	233	1	212	2	211	1
Oth Hydrocbns/Oxygenates	308	-4	353	-20	329	-25	275	3	382	-13	329	-17
Motor Gas Blend. Comp.....	-31	-51	110	-106	92	-105	-51	-113	-18	-51	-147	-68
Finished Motor Gasoline	7,896	-18	7,608	21	7,492	24	8,061	86	8,129	71	8,295	75
Reformulated.....	2,370	-29	2,366	-14	2,451	-39	2,669	17	2,615	12	2,652	15
Oxygenated.....	661	63	586	64	552	79	535	42	571	-8	663	-6
Other	4,865	-53	4,657	-28	4,489	-16	4,857	27	4,942	67	4,980	66
Finished Aviation Gasoline.....	22	(s)	16	0	15	0	20	0	18	0	23	2
Jet Fuel	1,603	-9	1,576	-3	1,519	2	1,637	4	1,542	3	1,539	3
Naphtha-Type Jet.....	(s)	0	1	0	(s)	0	1	0	1	0	1	0
Kerosene-Type Jet.....	1,603	-9	1,576	-3	1,518	2	1,637	4	1,542	3	1,538	3
Kerosene	119	(s)	61	(s)	36	(s)	33	(s)	49	(s)	58	(s)
Distillate Fuel Oil	3,200	-18	3,276	-1	3,196	-6	3,394	19	3,457	7	3,388	2
Residual Fuel Oil.....	778	2	746	-21	684	(s)	679	-1	724	2	711	-5
Naphtha Pet. Feedstock.....	254	-1	269	-1	226	-2	162	-2	176	-1	168	-2
Other Oils Pet. Feedstock	225	-23	196	-1	194	3	193	(s)	216	0	232	0
Special Naphthas	58	-5	58	0	55	0	61	0	62	0	63	0
Lubricants	172	-2	161	0	163	0	184	(s)	192	1	199	(s)
Waxes	22	-1	25	-1	17	(s)	21	1	21	(s)	15	(s)
Petroleum Coke	720	-5	717	-1	714	-9	715	6	691	(s)	698	1
Asphalt and Road Oil	389	1	419	(s)	474	3	520	1	544	5	590	(s)
Still Gas	634	-10	601	-2	618	-1	671	5	671	3	690	1
Miscellaneous Products	53	-2	50	-1	51	(s)	56	(s)	55	1	51	(s)
Imports	10,181	138	10,336	199	10,589	109	11,227	277	10,865	321	10,624	237
Crude Oil	8,308	43	8,387	10	8,757	-1	9,080	69	8,806	78	8,601	108
Pentanes Plus	76	0	42	0	19	0	18	0	19	0	22	0
LPGs	154	20	121	28	179	-7	177	-11	133	44	174	-10
Ethane/Ethylene.....	14	23	(s)	28	24	0	26	0	23	18	35	0
Propane/Propylene	121	-3	110	1	142	-7	128	-11	82	16	102	-10
Normal Butane/Butylene	10	0	3	0	7	0	12	0	15	7	20	0
Isobutane/Isobutylene	8	0	7	0	5	0	11	0	12	3	17	0
Oth Hydrocbns/Oxygenates	88	0	67	17	46	19	56	(s)	84	12	42	18
Unfinished Oils	328	-31	274	-24	239	2	318	9	246	29	432	-9
Motor Gas. Blend. Comp.....	152	18	131	11	116	33	268	59	228	55	218	71
Aviation Gas. Blend. Comp	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	289	21	347	46	327	0	449	36	450	30	389	49
Reformulated.....	195	6	238	29	176	0	190	12	223	15	184	12
Oxygenated.....	0	0	0	0	0	0	0	0	0	0	0	0
Other	94	16	109	16	151	0	259	24	227	15	205	38
Finished Aviation Gasoline.....	0	0	(s)	0	(s)	0	(s)	0	(s)	0	(s)	0
Jet Fuel	111	9	152	5	85	0	136	25	145	3	64	1
Naphtha-Type Jet.....	(s)	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet.....	111	9	152	5	85	0	136	25	145	3	64	1
Kerosene	3	0	2	0	2	0	2	0	(s)	0	(s)	0
Distillate Fuel Oil	286	0	265	50	248	0	195	0	190	23	190	4
Residual Fuel Oil.....	191	57	224	55	254	54	182	90	328	44	246	3
Naphtha Pet. Feedstock.....	56	0	94	0	111	0	63	0	48	0	29	0
Other Oils Pet. Feedstock	84	0	180	0	155	3	237	0	128	0	157	0
Special Naphthas	8	0	8	0	11	0	5	0	8	0	1	0
Lubricants	16	0	3	0	4	0	10	0	10	0	11	0
Waxes	1	(s)	2	1	2	1	2	(s)	1	1	2	2
Petroleum Coke	1	0	1	0	1	0	1	0	1	0	1	0
Asphalt and Road Oil	29	0	37	0	33	5	26	0	41	0	47	0
Miscellaneous Products	(s)	0	(s)	0	(s)	0	1	(s)	(s)	0	0	0

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

Table C1. Impact of Resubmissions on Major Series, 1999 (Continued)

(Thousand Barrels per Day, Except Where Noted)

Product	July		August		September		October		November		December		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Inputs	16,664	51	16,519	13	—	—	—	—	—	—	—	—	-30
Crude Oil	15,232	7	15,280	17	—	—	—	—	—	—	—	—	-4
Pentanes Plus	125	0	132	0	—	—	—	—	—	—	—	—	(s)
LPGs	177	-2	179	0	—	—	—	—	—	—	—	—	-2
Ethane/Ethylene	0	0	0	0	—	—	—	—	—	—	—	—	0
Propane/Propylene	0	0	0	0	—	—	—	—	—	—	—	—	0
Normal Butane/Butylene	59	0	56	0	—	—	—	—	—	—	—	—	-1
Isobutane/Isobutylene	118	-2	123	0	—	—	—	—	—	—	—	—	-1
Oth Hydrocbns/Oxygenates ...	372	2	383	0	—	—	—	—	—	—	—	—	-1
Unfinished Oils	643	29	500	-13	—	—	—	—	—	—	—	—	2
Motor Gas. Blend. Comp	116	16	48	9	—	—	—	—	—	—	—	—	-25
Aviation Gas. Blend. Comp	-3	0	-3	0	—	—	—	—	—	—	—	—	(s)
Production	19,706	57	19,710	5	—	—	—	—	—	—	—	—	-26
Pentanes Plus	312	1	317	2	—	—	—	—	—	—	—	—	2
LPGs	2,413	12	2,359	34	—	—	—	—	—	—	—	—	16
Ethane/Ethylene	721	7	683	19	—	—	—	—	—	—	—	—	7
Propane/Propylene	1,112	4	1,111	13	—	—	—	—	—	—	—	—	7
Normal Butane/Butylene	353	2	376	3	—	—	—	—	—	—	—	—	3
Isobutane/Isobutylene	226	-1	189	(s)	—	—	—	—	—	—	—	—	(s)
Oth Hydrocbns/Oxygenates ...	259	8	398	-43	—	—	—	—	—	—	—	—	-14
Motor Gas Blend. Comp	-124	-40	-180	49	—	—	—	—	—	—	—	—	-60
Finished Motor Gasoline	8,157	71	8,198	-37	—	—	—	—	—	—	—	—	36
Reformulated	2,555	20	2,619	0	—	—	—	—	—	—	—	—	-2
Oxygenated	487	0	591	0	—	—	—	—	—	—	—	—	29
Other	5,115	51	4,988	-37	—	—	—	—	—	—	—	—	10
Finished Aviation Gasoline	20	0	25	0	—	—	—	—	—	—	—	—	(s)
Jet Fuel	1,553	-2	1,574	1	—	—	—	—	—	—	—	—	(s)
Naphtha-Type Jet	1	0	(s)	0	—	—	—	—	—	—	—	—	0
Kerosene-Type Jet	1,552	-2	1,574	1	—	—	—	—	—	—	—	—	(s)
Kerosene	52	(s)	62	(s)	—	—	—	—	—	—	—	—	(s)
Distillate Fuel Oil	3,526	5	3,427	-1	—	—	—	—	—	—	—	—	1
Residual Fuel Oil	732	3	701	1	—	—	—	—	—	—	—	—	-2
Naphtha Pet. Feedstock	186	-1	176	-2	—	—	—	—	—	—	—	—	-1
Other Oils Pet. Feedstock	233	0	228	0	—	—	—	—	—	—	—	—	-3
Special Naphthas	107	-3	94	1	—	—	—	—	—	—	—	—	-1
Lubricants	183	0	204	(s)	—	—	—	—	—	—	—	—	(s)
Waxes	18	(s)	17	(s)	—	—	—	—	—	—	—	—	(s)
Petroleum Coke	701	1	715	0	—	—	—	—	—	—	—	—	-1
Asphalt and Road Oil	624	(s)	633	(s)	—	—	—	—	—	—	—	—	1
Still Gas	704	2	700	1	—	—	—	—	—	—	—	—	(s)
Miscellaneous Products	50	(s)	61	-3	—	—	—	—	—	—	—	—	-1
Imports	11,250	47	10,734	282	—	—	—	—	—	—	—	—	201
Crude Oil	9,222	-37	8,684	207	—	—	—	—	—	—	—	—	60
Pentanes Plus	38	0	47	0	—	—	—	—	—	—	—	—	0
LPGs	204	-13	172	0	—	—	—	—	—	—	—	—	6
Ethane/Ethylene	38	0	36	0	—	—	—	—	—	—	—	—	8
Propane/Propylene	122	-13	113	0	—	—	—	—	—	—	—	—	-3
Normal Butane/Butylene	24	0	20	0	—	—	—	—	—	—	—	—	1
Isobutane/Isobutylene	21	0	3	0	—	—	—	—	—	—	—	—	(s)
Oth Hydrocbns/Oxygenates ...	93	5	47	28	—	—	—	—	—	—	—	—	12
Unfinished Oils	283	8	269	23	—	—	—	—	—	—	—	—	1
Motor Gas Blend. Comp	144	34	241	-2	—	—	—	—	—	—	—	—	35
Aviation Gas. Blend. Comp	0	0	0	0	—	—	—	—	—	—	—	—	0
Finished Motor Gasoline	432	29	324	11	—	—	—	—	—	—	—	—	28
Reformulated	207	2	130	0	—	—	—	—	—	—	—	—	9
Oxygenated	0	0	0	0	—	—	—	—	—	—	—	—	0
Other	226	28	194	11	—	—	—	—	—	—	—	—	18
Finished Aviation Gasoline	1	0	1	0	—	—	—	—	—	—	—	—	0
Jet Fuel	141	5	161	5	—	—	—	—	—	—	—	—	7
Naphtha-Type Jet	0	0	0	0	—	—	—	—	—	—	—	—	0
Kerosene-Type Jet	141	5	161	5	—	—	—	—	—	—	—	—	7
Kerosene	(s)	0	(s)	0	—	—	—	—	—	—	—	—	0
Distillate Fuel Oil	173	12	212	10	—	—	—	—	—	—	—	—	12
Residual Fuel Oil	239	3	244	0	—	—	—	—	—	—	—	—	38
Naphtha Pet. Feedstock	78	0	82	0	—	—	—	—	—	—	—	—	0
Other Oils Pet. Feedstock	151	0	194	0	—	—	—	—	—	—	—	—	(s)
Special Naphthas	2	0	4	0	—	—	—	—	—	—	—	—	0
Lubricants	9	0	11	0	—	—	—	—	—	—	—	—	0
Waxes	2	0	3	0	—	—	—	—	—	—	—	—	1
Petroleum Coke	0	0	(s)	0	—	—	—	—	—	—	—	—	0
Asphalt and Road Oil	37	0	36	0	—	—	—	—	—	—	—	—	1
Miscellaneous Products	(s)	0	(s)	0	—	—	—	—	—	—	—	—	(s)

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

Table C1. Impact of Resubmissions on Major Series, 1999 (Continued)

(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June	
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference
Stocks (Thousand Barrels)	1,639,206	9,879	1,625,479	10,382	1,608,113	12,732	1,615,381	6,770	1,660,943	-3,962	1,636,133	3,760
Crude Oil (excl. SPR)	324,571	8,049	325,432	8,673	336,045	8,608	329,788	5,144	341,230	-1,559	327,974	3,322
Pentanes Plus.....	8,344	86	9,103	6	9,540	-5	10,187	-43	10,691	-58	9,252	-52
LPGs.....	91,223	208	81,940	-179	75,486	18	85,914	-2,861	99,270	-441	108,494	-331
Ethane/Ethylene	20,518	148	17,740	-59	17,522	0	17,372	-426	17,837	0	18,537	0
Propane/Propylene	47,535	69	43,331	-29	35,859	-5	40,157	-1,125	46,264	-494	51,175	-429
Normal Butane/Butylene.....	16,204	-63	13,664	-77	15,004	42	20,859	-1,270	27,449	37	31,059	86
Isobutane/Isobutylene.....	6,966	54	7,205	-14	7,101	-19	7,526	-40	7,720	16	7,723	12
Oth Hydrocbrns/Oxygenates...	13,799	63	15,011	35	14,643	-48	12,890	183	14,753	128	14,011	123
Unfinished Oils	91,006	329	92,624	-175	103,047	-111	102,548	227	99,897	-10	97,129	32
Motor Gas. Blend. Comp	46,975	1,610	49,520	588	47,760	572	47,247	261	48,295	-97	44,004	-450
Aviation Gas. Blend. Comp....	196	0	186	0	230	0	175	0	195	0	157	0
Finished Motor Gasoline	185,158	311	178,425	890	167,797	1,199	168,876	2,424	176,525	-2,639	172,349	-1,278
Reformulated	46,444	59	43,669	20	41,652	481	43,745	1,420	44,735	-384	43,346	-502
Oxygenated	1,050	42	920	57	1,515	203	1,196	235	1,477	24	1,759	-89
Other.....	137,664	210	133,836	813	124,630	515	123,935	769	130,313	-2,279	127,244	-687
Finished Aviation Gasoline	1,992	-193	1,993	-205	1,657	84	1,511	229	1,571	100	1,447	100
Jet Fuel.....	45,266	1,045	44,990	484	40,776	904	44,399	1,434	46,134	1,977	43,921	1,929
Naphtha-Type Jet	39	0	46	0	46	0	56	-1	51	0	58	0
Kerosene-Type Jet	45,227	1,045	44,944	484	40,730	904	44,343	1,435	46,083	1,977	43,863	1,929
Kerosene	6,831	3	5,992	29	5,030	2	4,640	-36	4,761	0	4,952	-90
Distillate Fuel Oil	147,874	-1,856	142,302	-588	125,737	111	125,314	-146	134,794	-2,566	133,216	-664
Residual Fuel Oil	43,752	86	41,883	255	39,571	72	40,540	-257	40,537	765	42,537	625
Naphtha Pet. Feedstock	2,160	0	2,637	0	2,817	0	2,280	1	2,387	0	2,323	0
Other Oils Pet. Feedstock.....	1,757	-76	2,324	-7	2,153	0	2,399	4	2,216	0	1,775	0
Special Naphthas.....	2,313	-70	2,214	-10	2,072	0	2,132	0	2,047	0	1,970	0
Lubricants	13,411	169	12,685	494	11,750	1,072	11,505	387	11,544	774	11,319	798
Waxes.....	912	255	990	237	1,008	1	1,053	12	1,112	18	1,112	13
Petroleum Coke	10,757	-17	10,761	0	10,274	0	9,696	0	9,714	0	8,552	20
Asphalt and Road Oil	27,212	-82	30,589	-128	36,810	266	37,893	-133	37,864	-361	33,076	-319
Miscellaneous Products.....	1,746	-41	1,928	-17	1,960	-13	1,943	-60	1,811	7	1,765	-18
Product Supplied	18,850	-50	19,240	120	19,489	5	18,861	364	18,142	408	19,738	74
Crude Oil.....	0	0	0	0	0	0	0	0	0	0	0	0
Pentanes Plus.....	218	4	173	3	175	1	164	8	153	4	231	4
LPGs.....	2,460	-34	2,115	42	2,268	-8	1,981	106	1,818	-12	2,020	41
Ethane/Ethylene	631	6	722	35	681	-1	709	21	671	15	710	18
Propane/Propylene	1,677	-20	1,266	2	1,387	-9	1,050	32	956	1	1,001	17
Normal Butane/Butylene.....	55	-13	21	1	119	2	129	51	101	-31	202	5
Isobutane/Isobutylene.....	97	-7	105	4	80	(s)	93	2	91	3	107	1
Unfinished Oils.....	6	-47	-20	-4	-13	6	-31	-14	-373	37	-99	-4
Aviation Gas. Blend. Comp....	6	-1	4	0	3	0	4	(s)	2	0	2	0
Finished Motor Gasoline	7,630	-12	8,091	46	8,081	14	8,389	81	8,233	264	8,752	79
Reformulated	2,494	-25	2,700	16	2,693	-54	2,789	-2	2,806	86	2,882	31
Oxygenated	655	62	589	64	531	74	544	41	562	-2	652	-3
Other.....	4,481	-49	4,801	-34	4,857	-6	5,056	42	4,864	180	5,218	50
Finished Aviation Gasoline	17	6	16	(s)	25	-9	25	-5	16	4	27	2
Jet Fuel.....	1,670	-34	1,729	22	1,716	-12	1,624	12	1,598	-11	1,641	5
Naphtha-Type Jet	(s)	0	(s)	0	(s)	0	-5	(s)	-1	(s)	-9	0
Kerosene-Type Jet	1,670	-34	1,729	22	1,717	-12	1,628	12	1,598	-11	1,650	5
Kerosene	125	(s)	93	-1	68	1	47	1	44	-1	51	3
Distillate Fuel Oil	3,637	38	3,624	3	3,820	-29	3,412	28	3,154	108	3,450	-58
0.05% & under	2,201	-30	2,205	25	2,390	-30	2,404	24	2,277	67	2,526	-24
Greater than 0.05%	1,436	68	1,419	-21	1,430	1	1,008	4	877	41	923	-34
Residual Fuel Oil	849	81	967	28	941	61	644	100	899	13	740	3
Naphtha Pet. Feedstock	308	-1	346	-1	331	-2	243	-2	220	-1	198	-2
Other Oils Pet. Feedstock.....	319	-20	355	-3	354	6	422	(s)	350	(s)	403	0
Special Naphthas.....	59	-3	60	-2	59	(s)	57	0	61	0	57	0
Lubricants	155	-7	163	-12	165	-19	176	23	169	-12	187	-1
Waxes.....	23	-9	21	1	15	9	17	(s)	17	1	13	2
Petroleum Coke	452	-4	528	-1	510	-9	451	6	469	(s)	530	(s)
Asphalt and Road Oil	225	4	332	2	304	-5	508	15	581	13	791	-1
Still Gas	634	-10	601	-2	618	-1	671	5	671	3	690	1
Miscellaneous Products.....	55	1	43	-2	50	(s)	57	1	60	-1	52	1

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

Table C1. Impact of Resubmissions on Major Series, 1999 (Continued)

(Thousand Barrels per Day, Except Where Noted)

Product	July		August		September		October		November		December		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Stocks (Thousand Barrels)....	1,639,397	1,907	1,618,442	450	—	—	—	—	—	—	—	—	5,240
Crude Oil (excl. SPR)	330,303	972	314,225	373	—	—	—	—	—	—	—	—	4,198
Pentanes Plus	8,663	2	9,011	3	—	—	—	—	—	—	—	—	-8
LPGs	119,015	94	127,187	43	—	—	—	—	—	—	—	—	-431
Ethane/Ethylene	16,976	0	17,032	0	—	—	—	—	—	—	—	—	-42
Propane/Propylene	57,400	-29	60,708	-94	—	—	—	—	—	—	—	—	-267
Normal Butane/Butylene	36,611	96	41,800	125	—	—	—	—	—	—	—	—	-128
Isobutane/Isobutylene	8,028	27	7,647	12	—	—	—	—	—	—	—	—	6
Oth Hydrocbrns/Oxygenates ...	12,641	447	13,764	-38	—	—	—	—	—	—	—	—	112
Unfinished Oils	95,460	104	93,059	244	—	—	—	—	—	—	—	—	80
Motor Gas. Blend. Comp	40,758	-1,149	40,821	26	—	—	—	—	—	—	—	—	170
Aviation Gas. Blend. Comp	147	0	125	0	—	—	—	—	—	—	—	—	0
Finished Motor Gasoline	163,583	-858	158,567	70	—	—	—	—	—	—	—	—	15
Reformulated.....	39,893	-264	39,395	10	—	—	—	—	—	—	—	—	105
Oxygenated.....	1,882	-142	2,008	0	—	—	—	—	—	—	—	—	41
Other	121,808	-452	117,164	60	—	—	—	—	—	—	—	—	-131
Finished Aviation Gasoline	1,316	58	1,425	0	—	—	—	—	—	—	—	—	22
Jet Fuel.....	44,537	2,094	45,184	-46	—	—	—	—	—	—	—	—	1,228
Naphtha-Type Jet.....	54	-3	36	0	—	—	—	—	—	—	—	—	-1
Kerosene-Type Jet.....	44,483	2,097	45,148	-46	—	—	—	—	—	—	—	—	1,228
Kerosene	5,264	-90	5,489	1	—	—	—	—	—	—	—	—	-23
Distillate Fuel Oil.....	138,096	-482	142,036	-147	—	—	—	—	—	—	—	—	-792
Residual Fuel Oil	43,080	1,972	37,082	1,396	—	—	—	—	—	—	—	—	614
Naphtha Pet. Feedstock.....	2,174	0	2,465	-49	—	—	—	—	—	—	—	—	-6
Other Oils Pet. Feedstock	1,905	0	2,130	0	—	—	—	—	—	—	—	—	-10
Special Naphthas	2,197	0	2,343	-15	—	—	—	—	—	—	—	—	-12
Lubricants	11,773	351	12,524	42	—	—	—	—	—	—	—	—	511
Waxes	1,173	10	1,173	6	—	—	—	—	—	—	—	—	69
Petroleum Coke.....	8,546	0	7,410	0	—	—	—	—	—	—	—	—	(s)
Asphalt and Road Oil	31,015	-1,609	25,467	-1,380	—	—	—	—	—	—	—	—	-468
Miscellaneous Products	2,050	-9	2,080	-79	—	—	—	—	—	—	—	—	-29
Product Supplied.....	19,503	80	19,883	111	—	—	—	—	—	—	—	—	139
Crude Oil	0	0	0	0	—	—	—	—	—	—	—	—	0
Pentanes Plus	241	-1	213	2	—	—	—	—	—	—	—	—	3
LPGs	2,061	-13	2,042	36	—	—	—	—	—	—	—	—	19
Ethane/Ethylene	810	7	717	19	—	—	—	—	—	—	—	—	15
Propane/Propylene	1,006	-21	1,086	15	—	—	—	—	—	—	—	—	2
Normal Butane/Butylene	127	2	158	2	—	—	—	—	—	—	—	—	2
Isobutane/Isobutylene	118	(s)	82	(s)	—	—	—	—	—	—	—	—	(s)
Unfinished Oils	-306	-23	-154	31	—	—	—	—	—	—	—	—	-2
Aviation Gas. Blend. Comp	3	0	4	0	—	—	—	—	—	—	—	—	(s)
Finished Motor Gasoline	8,783	86	8,583	-56	—	—	—	—	—	—	—	—	63
Reformulated.....	2,873	14	2,765	-9	—	—	—	—	—	—	—	—	7
Oxygenated.....	481	2	585	-5	—	—	—	—	—	—	—	—	29
Other	5,429	71	5,233	-42	—	—	—	—	—	—	—	—	27
Finished Aviation Gasoline	25	1	22	2	—	—	—	—	—	—	—	—	(s)
Jet Fuel.....	1,635	-2	1,706	75	—	—	—	—	—	—	—	—	7
Naphtha-Type Jet.....	-4	(s)	(s)	(s)	—	—	—	—	—	—	—	—	0
Kerosene-Type Jet.....	1,638	-2	1,706	75	—	—	—	—	—	—	—	—	7
Kerosene	42	(s)	55	-3	—	—	—	—	—	—	—	—	(s)
Distillate Fuel Oil.....	3,419	11	3,383	-1	—	—	—	—	—	—	—	—	13
0.05% & under	2,384	1	2,485	-7	—	—	—	—	—	—	—	—	3
Greater than 0.05%.....	1,035	10	898	6	—	—	—	—	—	—	—	—	10
Residual Fuel Oil	771	-37	1,014	19	—	—	—	—	—	—	—	—	33
Naphtha Pet. Feedstock.....	269	-1	249	0	—	—	—	—	—	—	—	—	-1
Other Oils Pet. Feedstock	380	0	415	0	—	—	—	—	—	—	—	—	-2
Special Naphthas	82	-3	76	1	—	—	—	—	—	—	—	—	-1
Lubricants	155	14	167	10	—	—	—	—	—	—	—	—	(s)
Waxes	15	(s)	17	(s)	—	—	—	—	—	—	—	—	1
Petroleum Coke.....	464	2	491	0	—	—	—	—	—	—	—	—	-1
Asphalt and Road Oil	720	42	840	-7	—	—	—	—	—	—	—	—	8
Still Gas	704	2	700	1	—	—	—	—	—	—	—	—	(s)
Miscellaneous Products	41	(s)	60	(s)	—	—	—	—	—	—	—	—	(s)

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

EIA-819M

Monthly Oxygenate Telephone Report

The EIA-819M, "Monthly Oxygenate Telephone Report," provides production data and preliminary stock data for fuel ethanol and methyl tertiary butyl ether (MTBE) in the United States and major U.S. geographic regions. Data are collected from a sample of respondents reporting on the Monthly Petroleum Supply Reporting System surveys and from the universe of oxygenate producers. Refer to Appendix B, Explanatory Note 2 for further detail. Final data on stocks of fuel ethanol and MTBE are presented in the Detailed Statistics section. The quantity of oxygenates blended into motor gasoline previously published in this appendix is now presented in Appendix B, Table B2.

Table D1. U.S. Summary, November 1999

Products	November 1999		October 1999		Year-to-Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Fuel Ethanol						
Production.....	2,998	100	3,272	106	31,939	96
Stocks	4,362	—	4,798	—	—	—
MTBE						
Production.....	6,827	228	6,759	218	71,973	215
Stocks	7,373	—	8,303	—	—	—

Source: Energy Information Administration (EIA) Form EIA-819M, "Monthly Oxygenate Telephone Report."

Table D2. Monthly Fuel Ethanol Production and Stocks by Petroleum Administration for Defense Districts (PADD)

(Thousand Barrels per Day, Except Where Noted)

District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total U.S.												
Production												
1998	96	85	86	85	81	83	85	87	98	103	97	100
1999	102	99	102	99	93	83	77	93	97	106	100	
Stocks (thous. bbls.)												
1998	2,633	2,519	2,360	2,423	2,732	2,829	2,951	2,991	3,169	3,195	3,300	2,814
1999	2,973	3,240	3,722	4,222	4,624	4,382	4,440	4,640	4,868	4,798	4,362	
East Coast (PADD I)												
Production												
1998	W	W	W	W	W	W	W	W	W	W	W	W
1999	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1998	110	99	86	32	32	139	230	298	101	94	84	78
1999	68	56	46	46	45	1	45	59	151	174	208	
Midwest (PADD II)												
Production												
1998	95	84	85	84	81	82	84	87	97	102	96	99
1999	101	99	101	98	93	83	77	93	97	105	99	
Stocks (thous. bbls.)												
1998	1,633	1,661	1,588	1,607	1,697	1,478	1,344	1,377	1,578	1,747	1,841	1,483
1999	1,649	1,897	2,460	2,822	2,861	2,642	2,598	2,757	2,827	2,831	2,498	
Gulf Coast (PADD III)												
Production												
1998	W	W	W	W	W	W	W	W	W	W	W	W
1999	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1998	394	225	271	382	565	612	717	608	610	554	602	625
1999	767	796	802	938	1,111	1,155	1,158	1,167	1,167	1,073	1,068	
Rocky Mountain (PADD IV)												
Production												
1998	W	W	W	W	W	W	W	W	W	W	W	W
1999	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1998	108	91	94	97	103	118	130	163	179	163	122	97
1999	99	90	94	100	152	160	154	142	172	149	124	
West Coast (PADD V)												
Production												
1998	W	W	W	W	W	W	W	W	W	W	W	W
1999	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1998	387	443	321	306	334	482	530	545	701	637	651	531
1999	389	400	320	316	454	425	486	516	551	572	463	

W=Withheld to avoid disclosure of individual company data.

Note: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA) Form EIA-819M, "Monthly Oxygenate Telephone Report."

Table D3. Monthly Methyl Tertiary Butyl Ether (MTBE) Production and Stocks by Petroleum Administration for Defense Districts (PADD)
(Thousand Barrels per Day, Except Where Noted)

District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total U.S.												
Production												
1998	188	176	201	209	195	204	220	217	210	202	220	221
1999	216	212	178	210	219	221	217	222	231	218	228	
Stocks (thous. bbls.)												
1998	8,690	8,725	8,976	9,025	8,400	8,762	8,544	7,695	8,117	7,408	7,880	9,283
1999	8,833	10,063	9,418	7,430	8,500	8,222	6,981	7,586	8,175	8,303	7,373	
East Coast (PADD I)												
Production												
1998	W	W	W	W	W	W	W	W	W	W	W	W
1999	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1998	1,676	1,514	1,794	1,464	2,058	1,657	1,734	1,341	1,275	1,476	1,876	1,515
1999	1,677	1,959	2,251	1,686	1,583	1,957	1,845	1,539	1,785	1,374	1,313	
Midwest (PADD II)												
Production												
1998	W	W	W	W	W	W	W	W	W	W	W	W
1999	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1998	W	W	W	W	W	W	W	W	W	W	W	W
1999	W	W	W	W	W	W	W	W	W	W	W	
Gulf Coast (PADD III)												
Production												
1998	164	153	179	184	173	176	191	188	181	173	190	193
1999	181	187	161	186	193	192	191	195	200	189	200	
Stocks (thous. bbls.)												
1998	3,712	4,084	3,871	4,132	3,150	3,854	3,174	2,950	3,295	3,159	3,233	3,982
1999	4,442	4,696	4,549	3,634	3,430	3,633	3,350	3,511	3,853	3,823	3,994	
Rocky Mountain (PADD IV)												
Production												
1998	W	W	W	W	W	W	W	W	W	W	W	W
1999	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1998	W	W	W	W	W	W	W	W	W	W	W	W
1999	W	W	W	W	W	W	W	W	W	W	W	
West Coast (PADD V)												
Production												
1998	W	W	W	W	W	W	W	W	W	W	W	W
1999	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1998	3,009	2,869	3,090	3,101	2,891	2,938	3,231	3,104	3,216	2,513	2,530	3,559
1999	2,443	3,087	2,322	1,901	3,242	2,416	1,585	2,377	2,397	2,910	1,897	

W=Withheld to avoid disclosure of individual company data.

Note: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA) Form EIA-819M, "Monthly Oxygenate Telephone Report."

Table D4. Monthly Methyl Tertiary Butyl Ether (MTBE) Production by Merchant and Captive Plants
(Thousand Barrels per Day, Except Where Noted)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total U.S.												
1992	98	94	89	79	90	90	101	91	104	118	128	125
1993	115	114	112	138	132	126	155	142	157	146	148	144
1994	123	140	129	140	139	115	154	166	160	164	150	144
1995	149	144	121	168	169	182	181	171	163	167	174	171
1996	173	172	182	183	194	202	197	179	186	187	183	184
1997	161	192	182	186	194	209	201	217	200	206	211	205
1998	188	176	201	209	195	204	220	217	210	202	220	221
1999	216	212	178	210	219	221	217	222	231	218	228	
Merchant Plants												
1992	65	62	58	48	55	53	63	53	61	76	81	77
1993	63	66	67	87	75	70	89	79	87	76	81	75
1994	63	76	66	73	72	50	73	89	90	81	84	69
1995	76	68	61	86	85	91	90	88	79	90	97	92
1996	94	92	93	95	109	123	111	96	101	98	94	87
1997	72	106	99	92	93	104	106	113	99	108	109	108
1998	97	77	104	107	94	106	114	108	100	100	117	114
1999	105	111	83	114	114	110	102	104	110	111	118	
Captive Plants												
1992	33	32	31	31	35	37	38	38	43	42	47	48
1993	52	48	45	50	57	55	67	62	70	70	67	69
1994	60	64	63	67	67	65	81	78	70	83	66	75
1995	73	76	60	83	84	91	91	83	84	76	78	79
1996	79	80	89	89	84	79	85	83	85	89	89	97
1997	89	86	83	94	102	105	95	104	101	98	102	97
1998	91	99	97	102	101	99	106	109	111	102	104	107
1999	110	101	94	97	104	111	114	118	120	107	110	

Note: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; $\text{CH}_3\text{-(CH}_2\text{)}_n\text{-OH}$ (e.g., methanol, ethanol, and tertiary butyl alcohol).

Alkylate. The product of an alkylation reaction. It usually refers to the high octane product from alkylation units. This alkylate is used in blending high octane gasoline.

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product, alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Degrees API} = \frac{141.5}{\text{sp.gr.}60^\circ\text{ F}/60^\circ\text{ F}} - 131.5$$

The higher the API gravity, the lighter the compound. Light crudes generally exceed 38 degrees API and heavy crudes are commonly labeled as all crudes with an API gravity of 22 degrees or below. Intermediate crudes fall in the range of 22 degrees to 38 degrees API gravity.

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituent obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Atmospheric Crude Oil Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600° to 750° F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, and xylene). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as other hydrocarbons, hydrogen, and oxygenates.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;

the types and grades of inputs to be processed;

the types and grades of products expected to be manufactured;

the environmental constraints associated with refinery operations;

the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and

the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene (C₆H₆). An aromatic hydrocarbon present in small proportion in some crude oils and made commercially from petroleum by the catalytic reforming of naphthenes in petroleum naphtha. Also made from coal in the manufacture of coke. Used as a solvent, in manufacturing detergents, synthetic fibers, and petrochemicals and as a component of high-octane gasoline.

Blending Components. See Motor or Aviation Gasoline Blending Components.

Blending Plant. A facility which has no refining capability but is either capable of producing finished motor gasoline through mechanical blending or blends oxygenates with motor gasoline.

Bonded Petroleum Imports. Petroleum imported and entered into Customs bonded storage. These imports are not included in the import statistics until they are: (1) withdrawn from storage free of duty for use as fuel for vessels and aircraft engaged in international trade; or (2) withdrawn from storage with duty paid for domestic use.

BTX. The acronym for the commercial petroleum aromatics benzene, toluene, and xylene. See individual categories for definitions.

Bulk Station. A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of less than 50,000 barrels and receives its petroleum products by tank car or truck.

Bulk Terminal. A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of 50,000 barrels or more and/or receives petroleum products by tanker, barge, or pipeline.

Butane (C₄H₁₀). A normally gaseous straight-chain or branch-chain hydrocarbon extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane (C₄H₁₀). A normally gaseous branch-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.

Normal Butane (C₄H₁₀). A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

Butylene (C₄H₈). An olefinic hydrocarbon recovered from refinery processes.

Captive Refinery Oxygenate Plants. Oxygenate production facilities located within or adjacent to a refinery complex.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

Fresh Feeds. Crude oil or petroleum distillates which are being fed to processing units for the first time.

Recycled Feeds. Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel, and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

Low Pressure. A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

High Pressure. A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A black or brownish-black solid combustible substance formed by the partial decomposition of vegetable matter without access to air. The rank of coal, which includes anthracite, bituminous coal, subbituminous coal, and lignite, is based on fixed carbon, volatile matter, and heating value. Coal rank indicates the progressive alteration, or coalification, from lignite to anthracite. Lignite contains approximately 9 to 17 million BTU per ton. The heat contents of subbituminous and bituminous coal range from 16 to 24 million BTU per ton, and from 19 to 30 million BTU per ton, respectively. Anthracite contains approximately 22 to 28 million BTU per ton.

Commercial Kerosene-Type Jet Fuel. See **Kerosene-Type Jet Fuel.**

Crude Oil (Including Lease Condensate). A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons (tar sands from Canada) are included.

Crude Oil, Refinery Receipts. Receipts of domestic and foreign crude oil at a refinery. Includes all crude oil in transit except crude oil in transit by pipeline. Foreign crude oil is reported as a receipt only after entry through customs. Crude oil of foreign origin held in bonded storage is excluded.

Crude Oil Losses. Represents the volume of crude oil reported by petroleum refineries as being lost in their operations. These losses are due to spills, contamination, fires, etc. as opposed to refinery processing losses.

Crude Oil Production. The volume of crude oil produced from oil reservoirs during given periods of time. The amount of such production for a given period is measured as volumes delivered from lease storage tanks (i.e., the point of custody transfer) to pipelines, trucks, or other media for transport to refineries or terminals with adjustments for (1) net differences between opening and closing lease inventories, and (2) basic sediment and water (BS&W).

Crude Oil Qualities. Refers to two properties of crude oil, the sulfur content and API gravity, which affect processing complexity and product characteristics.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Disposition. The components of petroleum disposition are stock change, crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels. Distillate fuel oil is reported in the following sulfur categories: 0.05% sulfur and under, for use in on-highway diesel engines which could be described as meeting EPA regulations; and greater than 0.05% sulfur, for use in all other distillate applications.

No. 1 Distillate. A petroleum distillate which meets the specifications for No. 1 heating or fuel oil as defined in ASTM D 396 and/or the specifications for No. 1 diesel fuel as defined in ASTM Specification D 975 with distillation temperatures of 420° F at the 10-percent recovery point and 550° F at the 90-percent recovery point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.

No. 2 Distillate. A petroleum distillate which meets the specifications for No. 2 heating or fuel oil as defined in ASTM D 396 and/or the specifications for No. 2 diesel

fuel as defined in ASTM Specification D 975 with distillation temperatures of 540 and 640 °F at the 90-percent recovery point, and kinematic viscosities between 2.0 and 4.3 centistokes at 100° F.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ending Stocks. Primary stocks of crude oil and petroleum products held in storage as of 12 midnight on the last day of the month. Primary stocks include crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tank farms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

ETBE (Ethyl tertiary butyl ether) (CH₃)₃COC₂H₅. An oxygenate blend stock formed by the catalytic etherification of isobutylene with ethanol.

Ethane (C₂H₆). A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene (C₂H₄). An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

Exports. Shipments of crude oil and petroleum products from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas

processing plants, new supply of other hydrocarbons/oxygenates and motor gasoline blending components, and fuel ethanol blended into finished motor gasoline.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fresh Feed Input. Represents input of material (crude oil, unfinished oils, natural gas liquids, other hydrocarbons and oxygenates or finished products) to processing units at a refinery that is being processed (input) into a particular unit for the first time.

Examples:

- (1) Unfinished oils coming out of a crude oil distillation unit which are input into a catalytic cracking unit are considered fresh feed to the catalytic cracking unit.
- (2) Unfinished oils coming out of a catalytic cracking unit being looped back into the same catalytic cracking unit to be reprocessed are not considered fresh feed.

Fuel Ethanol (C₂H₅OH). An anhydrous denatured aliphatic alcohol intended for gasoline blending as described in Oxygenates definition.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. A blend of finished motor gasoline and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate,

reformate, benzene, toluene, and xylene). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Gross Input to Atmospheric Crude Oil Distillation Units. Total input to atmospheric crude oil distillation units. Includes all crude oil, lease condensate, natural gas plant liquids, unfinished oils, liquefied refinery gases, slop oils, and other liquid hydrocarbons produced from tar sands, gilsonite, and oil shale.

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651° to 1000° F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; exists also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale.

Imports. Receipts of crude oil and petroleum products into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See **Butane**.

Isobutylene (C₄H₈). An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

Isohexane (C₆H₁₄). A saturated branch-chain hydrocarbon. It is a colorless liquid that boils at a temperature of 156.2° F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane (C₄), an alkylation process feedstock, and normal pentane and hexane into isopentane (C₅) and isohexane (C₆), high-octane gasoline components.

Isopentane. See **Natural Gasoline and Isopentane**.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401° F at the 10-percent recovery point, a final boiling point of 572° F, and a

minimum flash point of 100° F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. The fuel is designated in ASTM Specification D1655 and Military Specifications MIL-T-5624R and MIL-T-83133D (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for turbojet and turboprop aircraft engines.

Commercial. Kerosene-type jet fuel intended for use in commercial aircraft.

Military. Kerosene-type jet fuel intended for use in military aircraft.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401° F to 650° F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, isobutane, and isobutylene produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene. Excludes still gas.

Lower Operational Inventory (LOI). The lower operational inventory is the lower end of the demonstrated operational inventory range updated for known and definable changes in the petroleum delivery system. While not implying shortages, operational problems, or price increases, the LOI is indicative of a situation where inventory-related supply flexibility could be constrained or nonexistent. The significance of these constraints depends on local refinery capability to meet demand and the availability and deliverability of products from other regions or foreign sources.

Lubricants. A substance used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products, or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Reporting categories include:

Paraffinic. Includes all grades of bright stock and neutrals with a Viscosity Index > 75.

Naphthenic. Includes all lubricating oil base stocks with a Viscosity Index < 75.

Note: The criterion for categorizing the lubricants is based solely on the Viscosity Index of the stocks and is independent of crude sources and type of processing used to produce the oils.

Exceptions: Lubricating oil base stocks that have been historically classified as naphthenic or paraffinic by a refiner may continue to be so categorized irrespective of the Viscosity Index criterion.

Example:

- (1) Unextracted paraffinic oils that would not meet the Viscosity Index test.

Merchant Oxygenate Plants. Oxygenate production facilities that are not associated with a petroleum refinery. Production from these facilities is sold under contract or on the spot market to refiners or other gasoline blenders.

Methanol (CH₃OH). A light, volatile alcohol intended for gasoline blending as described in Oxygenate definition.

Middle Distillates. A general classification of refined petroleum products that includes distillate fuel oil and kerosene.

Military Kerosene-Type Jet Fuel. See **Kerosene-Type Jet Fuel.**

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D- 4814 or Federal Specification VV-G-1690C, includes a range in distillation temperatures from 122 degrees to 158 degrees F at the 10-percent recovery point and from 365 degrees to 374 degrees F at the 90-percent recovery point. "Motor gasoline" includes reformulated gasoline, oxygenated gasoline, and other finished gasoline. Blendstock is excluded until blending has been completed.

Reformulated Gasoline. Gasoline formulated for use in motor vehicles, the composition and properties of which meet the requirements of the reformulated gasoline regulations promulgated by the U.S. Environmental Protection Agency under Section 211K of the Clean Air Act. Includes oxygenated fuels program reformulated gasoline (OPRG). Excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

Oxygenated Gasoline. Gasoline formulated for use in motor vehicles that has an oxygen content of 1.8 percent or higher, by weight. Includes gasohol. Excludes reformulated gasoline, oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB).

OPRG. "Oxygenated Fuels Program Reformulated Gasoline" is reformulated gasoline which is intended for use in an oxygenated fuels program control period.

Other Finished or Conventional Gasoline. Motor gasoline not included in the oxygenated or reformulated gasoline categories. Excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

Motor Gasoline Blending. Mechanical mixing of motor gasoline blending components and oxygenates to produce finished motor gasoline. Mechanical mixing of finished motor gasoline with motor gasoline blending components or oxygenates which results in increased volumes of finished motor gasoline, and/or changes in the classification of finished motor gasoline (e.g., other finished motor gasoline mixed with MTBE to produce oxygenated motor gasoline), is considered motor gasoline blending.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, xylene) and includes reformulated gasoline blendstock for oxygenate blending (RBOB). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as individual

components and included in the total for other hydrocarbons, hydrogens, and oxygenates.

MTBE (Methyl tertiary butyl ether) (CH₃)₃COCH₃. An ether intended for gasoline blending as described in Oxygenate definition.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122° and 400° F.

Naphtha Less Than 401° F. See **Petrochemical Feedstocks.**

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290° F at the 20-percent recovery point and 470° F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, and pentanes plus.

Natural Gas Processing Plant. A facility designed (1) 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 (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a

saturated branch-chain hydrocarbon, (C₅H₁₂), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Receipts. The difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge.

Normal Butane. See **Butane.**

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. The Neutral Zone between Kuwait and Saudi Arabia is considered part of OPEC. Prior to January 1, 1993, Ecuador was a member of OPEC. Prior to January 1995, Gabon was a member of OPEC.

OPRG. "Oxygenated Fuels Program Reformulated Gasoline" is reformulated gasoline which is intended for use in an oxygenated fuels program control area during an oxygenated fuels program control period.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Operable Utilization Rate. Represents the utilization of the atmospheric crude oil distillation units. The rate is calculated by dividing the gross input to these units by the operable refining capacity of the units.

Operating Utilization Rate. Represents the utilization of the atmospheric crude oil distillation units. The rate is calculated by dividing the gross input to these units by the operating refining capacity of the units.

Other Finished. See **Motor Gasoline (Finished).**

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Other Oils Equal To or Greater Than 401° F. See **Petrochemical Feedstocks.**

Other Oxygenates. Other aliphatic alcohols and aliphatic ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

Oxygenated Gasoline. See **Motor Gasoline (Finished).**

Oxygenates. Any substance which, when added to gasoline, increases the amount of oxygen in that gasoline blend. Through a series of waivers and interpretive rules, the Environmental Protection Agency (EPA) has determined the allowable limits for oxygenates in unleaded gasoline. The “Substantially Similar” Interpretive Rules (56 FR (February 11, 1991)) allows blends of aliphatic alcohols other than methanol and aliphatic ethers, provided the oxygen content does not exceed 2.7 percent by weight. The “Substantially Similar” Interpretive Rules also provides for blends of methanol up to 0.3 percent by volume exclusive of other oxygenates, and butanol or alcohols of a higher molecular weight up to 2.75 percent by weight. Individual waivers pertaining to the use of oxygenates in unleaded gasoline have been issued by the EPA. They include:

Fuel Ethanol. Blends of up to 10 percent by volume anhydrous ethanol (200 proof) (commonly referred to as the “gasohol waiver”).

Methanol. Blends of methanol and gasoline-grade tertiary butyl alcohol (GTBA) such that the total oxygen content does not exceed 3.5 percent by weight and the ratio of methanol to GTBA is less than or equal to 1. It is also specified that this blended fuel must meet ASTM volatility specifications (commonly referred to as the “ARCO” waiver).

Blends of up to 5.0 percent by volume methanol with a minimum of 2.5 percent by volume cosolvent alcohols having a carbon number of 4 or less (i.e., ethanol, propanol, butanol, and/or GTBA). The total oxygen must not exceed 3.7 percent by weight, and the blend must meet ASTM volatility specifications as well as phase separation and alcohol purity specifications (commonly referred to as the “DuPont” waiver).

MTBE (Methyl tertiary butyl ether). Blends up to 15.0 percent by volume MTBE which must meet the ASTM D4814 specifications. Blenders must take precautions that the blends are not used as base gasolines for other oxygenated blends (commonly referred to as the “Sun” waiver).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Persian Gulf. The countries that comprise the Persian Gulf are: Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are “Naphtha Less Than 401° F” and “Other Oils Equal To or Greater Than 401° F.”

Naphtha Less Than 401° F. A naphtha with a boiling range of less than 401° F that is intended for use as a petrochemical feedstock.

Other Oils Equal To or Greater Than 401° F. Oils with a boiling range equal to or greater than 401° F that are intended for use as a petrochemical feedstock.

Petroleum Administration for Defense (PAD) Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts by the Petroleum Administration for Defense in 1950. These districts were originally defined during World War II for purposes of administering oil allocation.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This “green” coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Pipeline (Petroleum). Crude oil and product pipelines used to transport crude oil and petroleum products respectively, (including interstate, intrastate, and

intracompany pipelines) within the 50 States and the District of Columbia.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Processing Gain. The volumetric amount by which total output is greater than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a lower specific gravity than the crude oil processed.

Processing Loss. The volumetric amount by which total refinery output is less than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a higher specific gravity than the crude oil processed.

Product Supplied, Crude Oil. Crude oil burned on leases and by pipelines as fuel.

Production Capacity. The maximum amount of product that can be produced from processing facilities.

Products Supplied. Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts when calculated on a PAD District basis), minus stock change, minus crude oil losses, minus refinery inputs, minus exports.

Propane (C₃H₈). A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene (C₃H₆). An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

RBOB. “Reformulated Gasoline Blendstock for Oxygenate Blending” is a motor gasoline blending component which, when blended with a specified type and percentage of oxygenate, meets the definition of reformulated gasoline.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and oxygenates.

Refinery Input, Crude Oil. Total crude oil (domestic plus foreign) input to crude oil distillation units and other refinery processing units (cokers, etc.).

Refinery Input, Total. The raw materials and intermediate materials processed at refineries to produce finished petroleum products. They include crude oil, products of natural gas processing plants, unfinished oils, other hydrocarbons and oxygenates, motor gasoline and aviation gasoline blending components and finished petroleum products.

Refinery Production. Petroleum products produced at a refinery or blending plant. Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. Refinery production of unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input.

Refinery Yield. Refinery yield (expressed as a percentage) represents the percent of finished product produced from input of crude oil and net input of unfinished oils. It is calculated by dividing the sum of crude oil and net unfinished input into the individual net production of finished products. Before calculating the yield for finished motor gasoline, the input of natural gas liquids, other hydrocarbons and oxygenates, and net input of motor gasoline blending components must be subtracted from the net production of finished motor gasoline. Before calculating the yield for finished aviation gasoline, input of aviation gasoline blending components must be subtracted from the net production of finished aviation gasoline.

Reformulated Gasoline. See **Motor Gasoline (Finished)**.

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specification D396. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; No. 6, which includes Bunker C fuel oil, and is used for commercial and industrial heating, electricity generation and to power ships.

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000 F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank which is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6 million BTU's per fuel oil equivalent barrel.

Stock Change. The difference between stocks at the beginning of the month and stocks at the end of the month.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A yellowish nonmetallic element, sometimes known as "brimstone".

Supply. The components of petroleum supply are field production, refinery production, imports, and net receipts when calculated on a PAD District basis.

TAME (Tertiary amyl methyl ether) (CH₃)₂(C₂H₅)COCH₃. An oxygenate blend stock formed by the catalytic etherification of isoamylene with methanol.

Tank Farm. An installation used by gathering and trunk pipeline companies, crude oil producers, and terminal operators (except refineries) to store crude oil.

Tanker and Barge. Vessels that transport crude oil or petroleum products. Data are reported for movements between PAD Districts; from a PAD District to the Panama Canal; or from the Panama Canal to a PAD District.

TBA (Tertiary butyl alcohol) (CH₃)₃COH. An alcohol primarily used as a chemical feedstock, a solvent or feedstock for isobutylene production for MTBE; produced as a co-product of propylene oxide production or by direct hydration of isobutylene.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene (C₆H₅CH₃). Colorless liquid of the aromatic group of petroleum hydrocarbons, made by the catalytic reforming of petroleum naphthas containing methyl cyclohexane. A high-octane gasoline-blending agent, solvent, and chemical intermediate, base for TNT.

Unaccounted for Crude Oil. Represents the arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production plus imports minus changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material consisting of a mixture of hydrocarbons obtained or derived from petroleum fractions, or through a Fischer-Tropsch type process, in which the straight chained paraffin series predominates. This includes all marketable wax, whether crude or refined, with a congealing point (ASTM D 938) between 100° and 200° F and a maximum oil content (ASTM D 3235) of 50 weight

percent. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Working Storage Capacity. The difference in volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene ($C_6H_4(CH_3)_2$). Colorless liquid of the aromatic group of hydrocarbons made the catalytic reforming of certain naphthenic petroleum fractions. Used as high-octane motor and aviation gasoline blending agents, solvents, chemical intermediates. Isomers are metaxylene, orthoxylene, paraxylene.