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Petroleum Supply Annual 1993

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Preface

The *Petroleum Supply Annual* (PSA) contains information on the supply and disposition of crude oil and petroleum products. The publication reflects data that were collected from the petroleum industry during 1993 through annual and monthly surveys. The PSA is divided into two volumes. This first volume contains four sections: Summary Statistics, Detailed Statistics, Refinery Capacity, and Oxygenate Capacity each with final annual data. The second volume contains final statistics for each month of 1993, and replaces data previously published in the *Petroleum Supply Monthly* (PSM). The tables in Volumes 1 and 2 are similarly numbered to facilitate comparison between them. Below is a description of each section in Volume 1 of the PSA.

Summary Statistics

This section contains a summary of the data presented each month in the PSM and in Volume 2 of the PSA. It includes a description of the major events in the petroleum industry during 1993 including trends in supply, consumption, and production. Graphs and tables are provided which show 13 years of data depicting the balance between supply, disposition and ending stocks for various commodities including crude oil, motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, propane/propylene, and liquefied petroleum gases.

Detailed Statistics

The tables contained in this section provide 1993 detailed statistics on supply and disposition, refinery operations, imports and exports, stocks, and transportation of crude oil and petroleum products. In most cases, the statistics are presented for several geographic areas -- the United States (50 States and the District of Columbia), five Petroleum Administration for Defense (PAD) Districts, and 12 Refining Districts. At the U.S. and PAD District level, the total volume and the daily rate of activities are presented.

Refinery Capacity

This section describes major activities within the refinery industry during 1993. The tables are compiled from the Form EIA-820, "Annual Refinery Report." Of particular note are listings of facilities and associated capacities in each State. In addition, summaries of corporate refinery capacities, refinery storage facilities in selected States, and refinery shutdowns, sales and mergers during 1993 are provided.

Oxygenate Capacity

This section highlights major activities within the oxygenate industry during 1993. The tables are compiled from the Form EIA-819A, "Annual Oxygenate Capacity Report." Current production capacity by facility are provided for the following oxygenates: fuel ethanol, ethyl tertiary butyl ether (ETBE), methanol, methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA) and other oxygenates. In addition, projections for the following year are provided on a PAD District basis.

Appendices

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

- Appendix A (District Descriptions and Maps) - Geographic aggregations of the 50 States and the District of Columbia into Refining Districts which make up the PAD Districts.
- Appendix B (Detailed Statistics Explanatory Notes) - Information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables.
- Appendix C (1992 Revised Crude Oil Production) - Updated monthly and annual crude oil production statistics received after the publication of the 1992 PSA.

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**U.S.
Petroleum
Developments: 1993**

A refinery worker makes his way around a towering storage tank to check the tank level.

U.S. Petroleum Developments: 1993

Highlights

Economic Growth Spurs Slight Increase in U.S. Petroleum Demand

Petroleum demand (measured as product supplied) in the United States averaged 17.2 million barrels per day during 1993, an increase of 1 percent from the 1992 level. An improved economy, as measured by gross domestic product¹ (GDP) and reflected in higher industrial production and real income growth by consumers, led to the slight increase in total petroleum demand during 1993.

Following a protracted period of sluggish growth and economic uncertainty that emerged after the Persian Gulf War, the U.S. economy during 1993 began to exhibit a pattern of sustained economic growth that became increasingly stronger as the year

progressed. This growth, which marked one of the best annual performances for the economy over the past several years, spurred higher consumption for all major petroleum products, except for residual fuel oil and propane (Figure FE1).

The increase in petroleum consumption during 1993 was particularly evident within the transportation fuel sector. Motor gasoline consumption reached an all-time high during 1993, as real income growth and lower real fuel costs per mile combined to increase discretionary travel. Diesel fuel consumption increased as a result of the overall expansion of commercial and industrial activity and the subsequent rise in highway freight traffic. The rise in jet fuel consumption was brought about in part by increased commercial airline competition in the form of passenger fare discounts and incentives, which boosted passenger travel demand.

Crude Oil Prices Hit 5-Year Low

World crude oil prices² fell to their lowest level in over 5 years during 1993. This was largely due to relatively weak world demand for petroleum, overproduction of crude oil by the Organization of Petroleum Exporting Countries (OPEC), abundant world inventories, and continued improvements in global energy efficiencies.

The overall impact of lower crude oil prices on U.S. producers, refiners, and consumers was generally mixed. While lower oil prices are viewed as being beneficial to the U.S. economy, they can adversely affect the domestic oil and gas industry if prices remain low for an extended period of time.

Lower crude oil prices historically precede lower drilling activity and accelerated declines in U.S. crude oil production volumes. Although drilling activity during 1993 did not experience the declines normally associated with falling crude oil prices, its relatively low level, compared with the past several years, was a contributing factor for the continued drop in U.S. crude oil production volumes.³ During 1993, U.S. crude oil production fell to its lowest level in 35 years.

The impact of lower crude oil prices on refiner operations was generally positive during 1993. The refiner acquisition cost of crude oil from all sources fell by nearly \$6.00 per barrel between April and December 1993, which caused refining margins to improve for some petroleum refiners.

Figure FE1. Changes in U.S. Petroleum Demand by Product (1992 to 1993)

^aMotor gasoline change from 1992 includes fuel ethanol and motor gasoline blending adjustments. (See Appendix B, Explanatory Note 11 Table B4.)

Source: Energy Information Administration, *Petroleum Supply Annual*, 1993, DOE/EIA-0304(93)/1, Volume 1, Tables S4, S5, S6, S8, and S9.

¹Gross Domestic Product (GDP) is the measure of the sum of all domestic goods and services produced.

²Energy Information Administration, *Weekly Petroleum Status Report*, January 7, 1994, DOE/EIA-0208 (94-02), Figure 9, p. 19.

³Energy Information Administration, *Monthly Energy Review*, April 1994, DOE/EIA-0035(94/04), Table 5.1, "Rotary Rigs in Operation-Oil," p. 84.

Declining crude oil costs benefitted consumers through lower product prices during 1993. All of the major petroleum products, except diesel fuel, experienced price declines during 1993.⁴

Federal Excise Tax Increase for Motor Fuels

On August 10, 1993, President Clinton signed the Omnibus Budget Reconciliation Act of 1993, which raised the Federal excise tax for on-highway motor fuels by 4.3 cents per gallon starting October 1, 1993. The new tax raised the total Federal excise tax for motor gasoline and diesel fuel to 18.4 cents per gallon and 24.4 cents per gallon, respectively. Certain uses of diesel fuel, such as for farming, off-highway, and home heating, are exempt from the tax. To distinguish taxable fuel from non taxable fuel, Federal regulations required that exempt fuel be dyed while taxable fuel remain "clear."

The new Federal excise tax increase had little impact on motor gasoline retail prices, as falling crude oil prices during 1993 more than offset the effect of the tax increase on retail prices. On average, 1993 retail motor gasoline prices were about 2 cents per gallon below their 1992 average annual price.

However, the new Federal tax on diesel fuel came on top of other increased fuel costs due to new low-sulfur requirements for diesel used for transportation. These changes occurred simultaneously on October 1 and, combined with some refinery outages, the result was some localized supply shortages and steep price increases for diesel fuel in the Midwest and on the West Coast.

Clean Air Act Amendments of 1990

The quality of transportation fuels marketed in the United States during 1993 was affected by recent changes in Federal and State standards.

Noxious exhaust emissions were reduced, as the Clean Air Act Amendments of 1990 (CAAA) mandated that the maximum sulfur content of highway diesel fuel be reduced to 0.05 percent by weight. This requirement became effective October 1, 1993⁵. Also effective on that date, the California Air Resources Board (CARB) reduced aromatic hydrocarbon levels to 10 percent by volume for on- and off-highway diesel fuel oil marketed in California.

As mandated by the CAAA, oxygenated motor gasoline was marketed during the winter months generally in specified carbon monoxide nonattainment areas. These cleaner burning fuels contain high levels of oxygen that reduce carbon

monoxide emissions from automobiles. The first oxygenated gasoline season was carried out in the designated areas mainly from November 1992 through February 1993,⁶ and the second season was between October 1993 and March 1994 in most regions. In New York and northern New Jersey, the oxygenated season continued until the end of April 1994.

Oxygenates are comprised of alcohols and ethers and are used by petroleum refiners and marketers as octane boosters for motor gasolines as well as blending materials to improve motor gasoline specifications under the mandate of the CAAA. The second oxygenated fuel season resulted in reduced carbon monoxide emissions in many areas.⁷ However, while most oxygenated motor gasoline operations were carried out smoothly and without complaints, numerous low-sulfur diesel fuel oil cold-weather handling and performance problems were reported. These problems occurred mainly because of jelling and solidifying at temperatures considerably higher than in similar fuels with higher sulfur levels, and consumers and marketers blended increased quantities of kerosene with the diesel fuel oil to alleviate the cold-temperature flow problems.

The petroleum industry invested in new and modified storage, distribution, and transportation systems to accommodate these new fuel standards. Many petroleum refiners and distributors constructed separate storage tanks to segregate oxygenate materials, finished motor gasoline, and low-sulfur diesel fuel oil; modifications were also made to highway, waterway, and pipeline transportation equipment and systems to handle these particular petroleum products.

CAAA and State requirements imposed significant changes and upgrading in petroleum refinery fluid catalytic cracking and catalytic reforming units to raise the oxygen content of automotive fuel. U.S. refiners increased the output of oxygenated finished motor gasoline, produced mainly with methyl tertiary butyl ether (MTBE) and fuel ethanol, and they invested significantly in additional hydrotreaters and desulfurization units necessary to satisfy the need for the cleaner burning distillate fuel oils.

Propane Inventories Rebound from Record Low Level

Rebounding from an all-time low reached at the end of March 1993, U.S. stocks of propane were replenished to normal levels by the start of the 1993-1994 heating season. The concern among industry observers prior to the buildup was whether the industry could rebuild stocks to a comfortable level in time for the start of the winter heating season. However, by the end of September 1993, the Nation's supply of propane reached over

⁴Energy Information Administration, *Short-Term Energy Outlook*, DOE/EIA-0202(94/1Q), Figure 13, "U.S. Petroleum Prices," p. 14.

⁵"Distillate Fuel Oil Outlook for Winter 1993-94," *Petroleum Supply Monthly*, DOE/EIA-0109(93/10), October 1993, p. xiii-xxiv.

⁶"The Economics of the Clean Air Act Amendments of 1990: Review of the 1992-1993 Oxygenated Motor Gasoline Season," *Petroleum Supply Monthly*, DOE/EIA-0109(93/07), July 1993, pp. xiii-xxv.

⁷"1993-94 Oxygenated Fuel Seasons Come to Quiet Conclusion," *Oxy-Fuel News*, March 7, 1994, pp. 1, 8, and 9.

61 million barrels, a level that many industry observers regard as adequate to meet normal winter demand (Figure FE2).

The dramatic stockbuild was accomplished in part by a high volume of waterborne imports into the East Coast and Gulf Coast regions during spring and summer months. Lower demand for propane in European and Asian markets and relatively attractive propane prices in the United States combined to attract supplemental imports of propane to the United States. Other factors attributable to propane's stockbuild were sustained high production levels and lower demand. Moreover, a repeat of the near-record corn harvest and associated crop drying demand was precluded, due in part to heavy flooding in the Midwest during the summer of 1993.

Product Demand

Motor Gasoline

Demand for motor gasoline averaged a record 7.5 million barrels per day during 1993, breaking the long-standing record of 7.4 million barrels per day set in 1978.

Falling crude oil prices, especially in the second half of 1993, resulted in high refinery runs and high motor gasoline stock

levels. This in turn led to lower gasoline prices which helped to stimulate gasoline demand.

Imports of motor gasoline have declined in recent years while exports have risen. Net imports (gross imports minus exports) of motor gasoline averaged over 4 percent of product supplied annually between 1986 and 1990, dropping to under 3 percent during 1991 and 1992, and to 1.9 percent in 1993.

Stock patterns during 1993 were influenced by motor gasoline composition changes, crude oil prices, weather, and driving patterns. February 1993 inventories were at a 3-year high, which provided a strong supply for the beginning of the summer driving season. Stocks of motor gasoline fell in August as the low-Reid Vapor Pressure (RVP)⁸ summer gasolines were replaced by new supplies of oxygenated gasolines to meet the winter requirements. August inventories of motor gasoline were the lowest monthly level for both 1992 and 1993, standing at 201 million barrels and 202 million barrels, respectively.

The demand for oxygenates and oxygenated gasoline was slightly less during 1993 than for 1992's initial oxygenated gasoline season. One of the causes of the decline was that the Hartford, Connecticut; Syracuse, New York; Cleveland, Ohio areas, and areas in Alaska where oxygenated fuels were required last year, did not participate in the oxygenated gasoline program this year. Their nonparticipation resulted in a decline of about 145,000 barrels per day of required oxygenated gasoline.

Figure FE2. Propane Stocks—March 31 and September 30, 1989-1993

^aAverage level and width of average range based on 3 years of monthly data: January 1991 - December 1993.

^bThe Observed Minimum for propane stocks is based on final monthly data for the last 36-month period and was 21.8 million barrels, occurring in March 1993.

Source: Energy Information Administration (EIA), *Petroleum Supply Annual*, 1989-1993, DOE/EIA-0340(89/93)/1, Volume 1, Table 2.

Distillate Fuel Oil

Adaptation to meet the new requirements of the 1990 CAAA was the major industry event for producers, transporters and suppliers of distillate fuel oil during 1993. Those requirements included distillate standards for fuels designated for on-highway use of a maximum sulfur content of 0.05 percent by weight and a minimum cetane level of 40. Further, these fuels must also be colorless to clearly designate them for use on-highway. Other diesel or distillate will be dyed blue. The restrictions were designed to combat emissions of sulfur oxides, and to assure the ignition performance of the diesel meets the American

⁸Reid Vapor Pressure (RVP). The measure of volatility. The more volatile a gasoline is, the more readily it evaporates and causes vapor lock.

Society for Testing and Materials standards for combustion. The 1990 CAAA standard took effect October 1, 1993, and affects about 46 percent of the total domestic demand for distillate fuel oil, or about 8 percent of total U.S. petroleum demand, according to estimates based on preliminary data from the 1993 *Fuel Oil and Kerosene Sales Report*.

Because of the difficulties in maintaining separate storage facilities for the on-highway (clear) and off-highway (blue) diesel used in Alaska, the State petitioned the Environmental Protection Agency (EPA) for exemption from the low-sulfur ruling until 1996 for those areas served by the Federal Highway System, and for a permanent exemption for the remainder of the State. The exemption was granted in March 1994. In the interim between October 1, 1993, and the final decision in March 1994 by EPA, the Agency used its enforcement discretion under the terms of the Regulation.

In California, even stricter diesel regulations were set by the California Air Resources Board (CARB). In addition to the 0.05 percent or less sulfur content, aromatic hydrocarbons were limited to 10 percent by volume, which implies a minimum cetane level of 55. Furthermore, all diesel fuel used in California, except that used by railroad engines and marine vessels, must meet the standards. This contrasts to the Federal regulation that permits some government and charitable organization diesel vehicles, and all off-highway agricultural and construction vehicles to use higher sulfur diesel fuel.

Implementation of the low-sulfur diesel rules brought reports of shortages and price spikes in parts of the Midwest, Nevada, and particularly in California. Because of the expense and number of modifications necessary for refiners to produce the CARB standard fuel beyond those modifications necessitated by the Federal mandate, a number of refiners who traditionally marketed diesel in California elected not to do so. Instead, their diesel production was sold wherever the Federal regulations required. Spot prices rose by as much as 30 cents per gallon in parts of California by early October 1993. Truckers refueled across State borders, putting extraordinary stress on terminals in States bordering California. Although reports of shortages were short-lived, a strike called by California truckers brought a 6 week moratorium on regulations in California markets that allowed Federal low-sulfur diesel to be sold for off-highway use. This respite allowed refiners to increase supplies of California-specification fuel, and helped stabilize prices.

Demand for distillate fuel oil of 3.0 million barrels per day was 2 percent higher in 1993 than in 1992. Distillate refinery production during 1993 of 3.1 million barrels per day was 5 percent higher than in 1992. Inventories remained within or above normal ranges throughout the year, with low-sulfur stocks constituting 45 percent of total distillate stocks by the end of the year.

Imports were 184,000 barrels per day during 1993, down 15 percent from the 1992 average of 216,000 barrels per day. This included 41,000 barrels per day of low-sulfur distillate from Canada, Venezuela, and the Virgin Islands. For the third consecutive year, exports of distillate exceeded imports. Exports were 90,000 barrels per day greater than imports in 1993, compared with a 3,000-barrels-per-day difference in 1992.

Residual Fuel Oil

The steady decline in the demand for residual fuel oil that began in the late 1970's moderated during 1993. The slowdown in the decline in demand was partly the result of falling prices that caused residual fuel oil to be competitive with natural gas at electric utilities.

During 1993, residual fuel oil demand averaged 1.1 million barrels per day, a decline of 1.3 percent from 1992. Domestic production, imports, and exports were below comparable 1992 levels, while stocks remained within normal levels for most of the year.

Propane

Because of an atypical combination of demand factors, specifically high and late crop-drying demand during the fall of 1992, and unseasonably cold weather during the first quarter of 1993, U.S. inventories of propane fell to record low levels by the end of the 1992-1993 heating season (March 31, 1993). With less than 22 million barrels remaining in storage, industry focused on rebuilding stocks to adequate levels by the start of the 1993-1994 heating season. Between March and September 1993, U.S. inventories of propane were replenished at a record pace to more than 61 million barrels, a level that industry observers regarded as adequate to meet normal winter demand. The record stockbuild was the result of sustained high levels of refinery and natural gas plant production, lower demand, particularly petrochemical feedstock demand for propane, and higher waterborne imports compared with the previous year. Overall demand during 1993 declined by about 3 percent from the 1992 level.

Jet Fuel

Although total jet fuel demand increased a modest 1 percent during 1993, demand for kerosene-type jet fuel (the largest component of total jet fuel) recorded nearly a 4-percent gain during this same period. The recovery in air travel demand that began in early 1993 was a major factor for the increase.

Contributing to the increase in demand for kerosene-type jet fuel was marketer and end-user blending of kerosene-type jet fuel into heating oil and diesel fuel. Refiners blended kerosene-type jet fuel into those fuels during the winter months to alleviate viscosity, handling, and performance problems associated with cold weather. Refiners also began blending

kerosene-type jet fuel with on-highway diesel fuel in order to meet new Federal requirements for lower sulfur fuels.

Another factor for the increase in demand for kerosene-type jet fuel was the October 1, 1993, start of the U.S. military's conversion from naphtha-type jet fuel to kerosene-type jet fuel. The military changeover, which only affected West Coast bases during 1993, is expected to be completed by 1995.

Despite slightly higher production and import volumes, jet fuel inventories remained below average levels for most of 1993, particularly during the fourth quarter when the new Federal regulations for lower sulfur fuels took effect.

Crude Oil

In 1993 U.S. crude oil production reached its lowest level since 1958 as declining world crude oil prices, costly environmental regulations, and extensive foreign oil exploration opportunities contributed to the ongoing decline in U.S. oil reserves. Low crude oil prices throughout 1993 forced companies to temporarily abandon marginally profitable wells, pushing production even lower.

Crude oil production from Alaskan fields declined nearly 8 percent from 1992 as warm-weather oil field problems affected production during the spring, and field and pipeline maintenance projects affected summer production. Unseasonably warm temperatures affected the efficiency of gas-fired turbines, and ongoing work on gas-handling projects at Prudhoe Bay field hindered production during the second and third quarters. As a result, Alaskan crude oil output was at its lowest level in 14 years.

The large 1993 decline in crude oil production occurred despite the long-delayed expansion of production from the Point Arguello field off the coast of California. This field in the Pacific Federal Offshore Continental Shelf (OCS) started producing during the second quarter of 1991, and initially it produced at lower than expected levels because of problems in transporting the produced oil to refineries. During the end of the second quarter, the field was producing about 60,000 barrels per day. By the end of the third quarter of 1993, West Coast tankering operations began moving crude oil from the Point Arguello field to nearby petroleum refineries. Consequently, oil

production increased to 80,000 barrels per day by year-end 1993.

Along with declining domestic crude oil production, falling crude oil prices combined with high refinery runs during much of 1993 resulted in high volumes of imported oil, pushing net petroleum imports' share of the U.S. product supplied to 44 percent during 1993, its highest level since 1977 (Figure FE3). Weak world oil demand and over production by OPEC depressed world oil prices throughout 1993, prompting record levels of foreign purchases of crude oil during June, July, October, and November. Crude oil imports filled the gap created by a nearly 5-percent drop in U.S. crude oil production, averaging a record 6.8 million barrels per day, eclipsing the previous record of 6.6 million barrels per day set in 1977.

Worldwide sources of crude oil over the past several years have become more diversified, and therefore more secure. From the North Sea to Nigeria, new supplies are coming on stream. This has removed some of the leverage of oil-rich Mideast nations.⁹ Further adding to U.S. energy security, three of America's top five sources of foreign oil: Venezuela (2nd), Canada (3rd), and Mexico (4th), are friendly neighbors. Venezuelan crude oil shipments to the U.S. grew by 0.2 million barrels per day, or 22 percent, to 1.0 million barrels per day in 1993, as several companies stepped up purchases of these South American crude oils. In addition, Colombia raised its exports of crude oil by 38 percent, despite problems with guerrillas who repeatedly attacked its export pipeline. Although Saudi Arabia continued to lead the list of foreign petroleum sources for the United

Figure FE3. United States Dependence on Net Petroleum Imports, 1984-1993

⁹As U.S. Oil Output Falls, Reliance on Imports Grows," *The Christian Science Monitor*, January 29, 1994, p. 2.

Source: Energy Information Administration, *Petroleum Supply Annual 1993*, DOE/EIA-0340 (93)/1, Volume 1, Table 3, and predecessor reports.

States during 1993, its share of the U.S. crude oil import market fell below 20 percent for the first time in 5 years. Conversely, countries supplying crude oil from the Western Hemisphere claimed a greater percentage of total U.S. imports (Table FE1).

During 1993, crude oil imports from Saudi Arabia averaged 1.3 million barrels per day, down 20 percent from a year earlier. Some industry analysts reported that the slump in U.S. purchases of Saudi crude oil was due in part to tying crude oil term contract prices to Alaskan North Slope spot prices at the U.S. Gulf Coast. Indications were that the declining North Slope production, coupled with strong demand for this crude oil on the U.S. West Coast, frequently inflated the prices of North Slope and other crude oils tied to crude oil term contract prices. Compensating for Saudi Arabia's loss of market share of imports to the United States, Kuwait boosted its exports nearly eight-fold as crude oil imports from the emirate eclipsed previous levels between July and December 1993, averaging a record 344,000 barrels per day for 1993.

Despite the gains by Kuwait and Venezuela, the share of total U.S. crude oil imports from OPEC declined to 54 percent from 56 percent a year earlier. Among non-OPEC suppliers, the increased shares from the United Kingdom and Canada contributed to the ongoing decline in OPEC crude oil imports. Continuing a trend observed in recent years, the United States imported a smaller proportion of their crude oil supply from countries belonging to the Arab OPEC (Figure FE4).

Falling crude oil prices throughout 1993, combined with a shift in emphasis by major oil companies toward oil exploration in less mature, lower cost producing regions overseas, resulted in oil well completions in the United States dropping for the ninth straight year. Since most of the world's largest undeveloped crude oil reserves are located outside of the United States, many companies, continuing a recent trend, choose to boost spending on exploration outside of the United States.¹⁰

Although drilling activity did not experience the decline normally associated with falling crude oil prices, its relatively low level in 1993 was a contributing factor for the continued drop in U.S. crude oil production. Furthermore, due in part to tax incentives for unconventional gas drilling, for the first time in U.S. history, oil well completions fell below the number of wells drilled for gas. Oil well completions totaled 7,994 by the close of 1993, 6 percent below last year's level.

¹⁰"Five U.S. Majors Expect to Boost Spending on Oil Exploration in 1994," Oil Buyers' Guide, November 15, 1993, p. 1.

Table FE1. Ten Leading Sources of Crude Oil Imports, 1992 and 1993
(Thousand Barrels per Day, Except Where Noted)

Rank	Country	1992	1993	% Difference
1	Saudi Arabia	1,597	1,282	-19.7
2	Venezuela	826	1,010	22.3
3	Canada	797	900	12.9
4	Mexico	787	863	9.7
5	Nigeria	665	722	8.6
6	Kuwait	39	344	782.1
7	Angola	336	336	0.0
8	United Kingdom	200	312	56.0
9	Gabon	123	151	22.8
10	Colombia	102	141	38.2
	Total	5,472	6,061	10.8
	Percent of Total Imports	90.0	89.3	--
	Other Countries	611	726	18.8
	Total U.S. Imports	6,083	6,787	11.6

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

Source: Energy Information Administration, *Petroleum Supply Annual 1993*, DOE/EIA-0340(93)/1 Volume 1, Table 21, and predecessor reports.

For much of 1993, low crude oil prices and strong petroleum demand encouraged brisk refining activity, prompting U.S. refiners to maintain higher crude oil inventories than had been observed in recent years. The substantial stock overhang was largely a result of improved refining margins, attributed to low world oil prices brought on by overproduction by OPEC. As the world crude oil price dipped below \$16 per barrel during June, refiners padded inventories from record imports, lifting stocks, for the first time since 1990, above their average range in June and July. Crude oil inventories ended the year at 335 million barrels, their highest level since 1989.

Strategic Petroleum Reserve (SPR) inventories rose in 1993. During April 1993, imports to the SPR reached their highest level in nearly 8 years, causing the largest month-to-month stock increase for that period since 1984. By the end of 1993, the SPR reached 587 million barrels, more than 12 million barrels higher than year-end 1992.

Refinery Activity

As of January 1, 1994, operable crude oil distillation capacity was about 15.0 million barrels per day, less than 1 percent below the level a year earlier. There were 179 operable refineries on January 1, 1994, compared with 187 a year earlier. The result of the net loss of eight refineries, combined with some capacity upgrades during the year, was a decline of about 87,000 barrels per day capacity. This is the second consecutive year that crude oil distillation capacity declined, continuing the trend to shut down uneconomical refineries.

Figure FE4. Shares of the U.S. Crude Oil Import Market, 1992-1993

Source: Energy Information Administration, *Petroleum Supply Annual 1993*, DOE/EIA-0340(93)/1, Volume 1, Table 21, and predecessor reports.

Ten U.S. refineries with total crude oil capacity of about 166,000 barrels per day were shut down in 1993, while 22,000 barrels per day were gained through two refinery reactivations. The largest single refinery to cease operations during 1993 was Marathon's 50,000-barrel-a-day Indianapolis, Indiana refinery. In addition, Coastal Refining and Marketing ceased refinery operations at their Augusta and Wichita, Kansas, facilities and operated both as bulk terminals. A third Coastal refinery at El Dorado, Kansas, is now operating as an asphalt plant. See a complete list of refinery shutdowns and reactivations beginning on page 121 of this publication.

Cyril Petrochemical in Cyril, Oklahoma, reactivated their 7,400-barrel-per-day refinery in late 1993, and Petroleum Fuel and Terminal (formerly Edgington Oil) in California reactivated their 15,000-barrel-a-day refinery. In addition, El Paso Refining in El Paso, Texas, which was shut down in 1992, was partially reactivated by Chevron. Chevron merged this refinery with its own El Paso facility into one operation. Concurrently, modernization of existing refineries through the upgrading of downstream intermediate processes continued throughout the industry, as refiners met the challenges of deteriorating crude oil quality, stringent requirements for oxygenated and reformulated gasoline, and reductions in allowable sulfur content of diesel fuels.

From January 1, 1993, to January 1, 1994, distillate hydrotreating (desulfurization) capacity increased 29 percent;

other residual hydrotreating capacity increased by 11 percent (Table FE2). While the capacities of all cracking processes combined experienced a slight decline from the previous year, coking capacity actually increased 4 percent. Catalytic hydrocracking capacity and catalytic cracking capacity experienced declines of 1.5 percent and 0.1 percent, respectively from the previous year. Capacities for the three octane enhancement processes combined experienced a 3-percent increase by January 1994, primarily due to a 4-percent increase in catalytic reforming capacity. In addition, hydrogen capacity, essential to the production of reformulated motor gasoline, increased 10 percent during 1993. See capacity tables beginning on page 81 of this publication.

During 1993, total crude oil received at refineries averaged 14.0 million barrels per day, 2 percent above the 1992 level. Receipts of foreign crude oil averaged 7.0 million barrels per day in 1993, a 10-percent increase from the previous year. Domestic receipts declined to 7.1 million barrels per day, 4 percent lower than the 1992 level. Domestic receipts constituted half of the total crude oil received at refineries: about 50 percent of the total in 1993, compared with 54 percent in 1992. Alaskan receipts at U.S. refineries dropped 6 percent from the 1992 level; however, Alaskan receipts still constituted about 21 percent of all domestic crude oil received at refineries. See new Table 45 in refinery capacity section of this publication for a summary of inputs, capacities, and utilization rates of downstream processing units.

Table FE2. Number and Operable Capacity of Select Processing Units at U.S. Petroleum Refineries, 1989-1994

As of January 1 of Year	Number	Crude Distillation (thousand barrels per calendar day)	Cracking ^a	Octane Enhancements ^b	Desulfurization			
					Distillate	Naphtha/ Reformer Feeds	Heavy Gas Oil	Other Residual
1989	204	15,655	8,961	5,395	2,746	3,993	1,685	1,016
1990	205	15,572	9,145	5,382	2,780	4,047	1,749	961
1991	202	15,676	9,328	5,493	2,866	4,072	1,833	906
1992	199	15,696	9,351	5,496	2,784	4,090	1,867	904
1993	187	15,121	9,263	5,310	2,849	4,034	1,891	904
1994	179	15,034	9,259	5,459	3,662	4,067	1,888	999

^a Includes catalytic cracking, hydrocracking, and thermal cracking.

^b Includes catalytic reforming, isomerization, and alkylation.

Source: Energy Information Administration (EIA), *Petroleum Supply Annual*, DOE/EIA-0340(88-93)/1 Volume 1, Table 38 and 39.

Prices

Lower worldwide demand for petroleum, abundant worldwide inventories, increasing global energy efficiency, and overproduction by OPEC and non-OPEC countries caused world oil prices to fall to their lowest level since the latter part of 1988.

World oil prices followed a modest upward trend during the early months of 1993, reaching a yearly high of \$17.60 per barrel by early March. By May, world oil prices began a steady decline that continued through the end of the year. By the end of December 1993, world oil prices declined to \$12.44 per barrel, about \$4.00 per barrel below the year-end 1992 level.

The refiner acquisition cost of crude oil from all sources drifted upward from January and reached a yearly high of \$18.40 per barrel by the end of April 1993. However, following the drop in world oil prices, the refiner acquisition cost began a steady decline and by December 1993, equalled \$12.51 per barrel, a drop of nearly \$5.00 per barrel compared with December 1992 (Table FE3).

U.S. annual motor gasoline prices during 1993 averaged about 2 cents per gallon below comparable 1992 average prices, as falling crude oil prices more than offset the 4.3-cents-per-gallon motor fuel tax.

Gasoline inventories remained unseasonably high during the first quarter of 1993, which contributed to lower gasoline prices during this period. Beginning in April 1993, gasoline prices began to rise slightly, and by June 1993, average retail motor gasoline prices reached a peak driving season high of \$1.19 per gallon. Retail gasoline prices trended downward until October 1993, when imposition of the motor fuel tax caused prices to increase to \$1.19 per gallon. However, falling crude oil prices during the fourth quarter 1993 caused motor gasoline prices to

fall to \$1.14 per gallon by the end of December 1993, the lowest level of the year.

On average, residential heating oil prices for 1993 were nearly 3 cents per gallon less than comparable 1992 average prices. Increased heating oil demand due to colder temperatures pushed heating oil prices up to a yearly high of 95 cents per gallon by the end of the first quarter of 1993. However, relatively low heating oil demand during the second quarter of 1993 caused prices to fall and by August 1993 were at a yearly low of 84 cents per gallon. As of the end of December 1993, residential fuel oil prices stood at about 87 cents per gallon, about 8 cents per gallon lower than the December 1992 price.

Table FE3. Year-End U.S. Petroleum Prices^a

	1990	1991	1992	1993
Dollars per Barrel				
Refiner Acquisition Cost of Crude Oil				
Domestic	26.46	17.84	17.85	12.45
Imported	25.56	17.17	16.94	12.56
Composite	26.09	17.56	17.43	12.51
Cents per Gallon				
Motor Gasoline All Types, Retail	141.0	118.2	120.1	113.6
No. 2 Heating Oil Retail ^b	119.7	95.9	94.6	86.7

^a Price as of December 31 of the year indicated, except for Refiner Acquisition Cost, which is based on an average December price.

^b Residential heating oil prices exclude taxes.

Source: Energy Information Administration (EIA), *Petroleum Marketing Annual 1992*, DOE/EIA-0487(92), Tables 1 and 16; *Petroleum Marketing Monthly*, March 1994, DOE/EIA-0380 (93/03), Tables 1 and 16; Motor Gasoline Prices; Bureau of Labor Statistics.

Summary Statistics

Incinerators such as this one at a chemical installation turn toxic chemicals into water vapor and other harmless elements.

Table S1. Crude Oil and Petroleum Products Overview, 1981 - 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
1981 Average	10,230	8,572	1,609	^g 290	^g -130	16,058	1,484
1982 Average	10,252	8,649	1,550	136	-283	15,296	^g 1,430
1983 Average	10,299	8,688	1,559	^g 214	^g -234	15,231	1,454
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	7,813	1,548	86	-129	17,325	1,581
1990 Average	8,994	7,355	1,559	-35	142	16,988	1,621
1991 January	9,255	7,500	1,647	-71	-1,027	16,893	1,587
February	9,424	7,637	1,695	231	-704	16,339	1,573
March	9,301	7,546	1,683	-239	-268	16,212	1,558
April	9,262	7,509	1,665	50	628	16,139	1,578
May	9,157	7,409	1,657	566	988	16,189	1,626
June	9,032	7,320	1,627	-299	546	16,878	1,634
July	9,056	7,347	1,622	-153	199	16,971	1,635
August	9,027	7,316	1,627	103	316	17,183	1,648
September	9,088	7,368	1,623	-156	653	16,848	1,663
October	9,212	7,437	1,686	51	-659	16,996	1,644
November	9,129	7,328	1,697	43	62	16,730	1,647
December	9,089	7,299	1,686	-611	-365	17,145	1,617
Average	9,168	7,417	1,659	-42	32	16,714	--
1992 January	9,176	7,361	1,688	540	-757	17,012	1,610
February	9,175	7,369	1,696	171	-951	16,893	1,588
March	9,123	7,348	1,694	-250	-291	16,825	1,571
April	9,072	7,293	1,693	315	92	16,764	1,583
May	8,949	7,169	1,695	-144	770	16,485	1,602
June	8,968	7,167	1,701	-581	607	16,978	1,603
July	8,961	7,131	1,683	244	290	17,143	1,620
August	8,678	6,922	1,638	-124	161	16,929	1,621
September	8,843	7,030	1,660	-160	653	16,876	1,636
October	9,025	7,126	1,722	411	-258	17,448	1,640
November	8,975	7,024	1,754	-227	77	17,091	1,636
December	9,019	7,103	1,744	-212	-1,203	17,928	^g 1,592
Average	8,986	7,171	1,697	-1	-68	17,033	--
1993 January	9,254	6,961	1,737	295	^g 560	16,173	^g 1,618
February	8,907	6,943	1,777	219	-796	17,334	1,602
March	8,987	6,974	1,793	212	-602	17,575	1,590
April	8,897	6,881	1,802	523	356	16,781	1,617
May	8,800	6,847	1,732	147	915	16,508	1,650
June	8,747	6,795	1,753	2	573	17,096	1,667
July	8,657	6,688	1,741	6	497	17,357	1,682
August	8,720	6,758	1,747	-505	299	17,332	1,676
September	8,652	6,712	1,732	-439	86	17,650	1,665
October	8,893	6,839	1,768	328	403	17,323	1,688
November	8,847	6,912	1,670	251	-320	17,780	1,686
December	8,668	6,858	1,579	-53	-1,198	17,953	1,647
Average	8,836	6,847	1,736	81	70	17,237	--

^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, 1981 - Present (Continued)
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Imports			Exports			Net Imports ^f
	Total	Crude Oil ^a	Petroleum Products	Total	Crude Oil	Petroleum Products	
1981 Average	5,996	4,396	1,599	595	228	367	5,401
1982 Average	5,113	3,488	1,625	815	236	579	4,298
1983 Average	5,051	3,329	1,722	739	164	575	4,312
1984 Average	5,437	3,426	2,011	722	181	541	4,715
1985 Average	5,067	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	5,643	2,217	859	142	717	7,202
1990 Average	8,018	5,994	2,123	857	109	748	7,161
1991 January	7,103	5,296	1,808	1,199	50	1,149	5,904
February	6,865	5,485	1,380	1,441	152	1,288	5,424
March	6,646	5,166	1,480	944	137	807	5,702
April	7,418	5,529	1,888	737	162	575	6,690
May	8,518	6,363	2,155	1,149	165	984	7,369
June	8,245	6,334	1,911	921	78	843	7,323
July	7,755	5,955	1,801	963	139	824	6,793
August	8,670	6,645	2,025	837	55	783	7,832
September	7,828	5,812	2,015	785	109	676	7,042
October	7,467	5,683	1,784	918	92	826	6,550
November	7,615	5,528	2,087	926	126	800	6,690
December	7,337	5,585	1,772	1,213	133	1,081	6,124
Average	7,627	5,782	1,844	1,001	116	885	6,626
1992 January	7,712	5,956	1,756	1,144	118	1,026	6,568
February	6,827	5,079	1,748	632	22	829	5,975
March	7,068	5,321	1,747	912	105	807	6,156
April	8,092	6,127	1,966	937	23	914	7,155
May	7,823	6,060	1,763	885	106	779	6,939
June	7,946	6,171	1,775	957	107	850	6,989
July	8,479	6,796	1,683	929	53	876	7,550
August	8,260	6,457	1,803	789	133	657	7,470
September	8,178	6,218	1,960	848	68	780	7,330
October	8,505	6,696	1,810	902	106	796	7,603
November	7,872	6,121	1,751	995	111	885	6,877
December	7,839	5,937	1,901	1,237	107	1,130	6,602
Average	7,888	6,083	1,805	950	89	861	6,938
1993 January	8,004	6,292	1,712	1,135	129	1,006	6,869
February	7,948	6,156	1,792	1,033	166	867	6,915
March	8,285	6,488	1,797	970	139	831	7,315
April	8,768	6,928	1,840	1,067	73	994	7,701
May	8,663	6,809	1,854	1,082	112	970	7,581
June	8,805	7,201	1,604	900	150	750	7,905
July	9,219	7,289	1,930	1,001	62	938	8,218
August	8,429	6,641	1,789	829	55	774	7,600
September	8,531	6,581	1,950	902	107	795	7,629
October	9,197	7,181	2,015	881	62	819	8,316
November	8,903	6,997	1,906	980	67	913	7,923
December	8,645	6,838	1,807	1,250	63	1,188	7,394
Average	8,620	6,787	1,833	1,003	98	904	7,618

Footnotes continued.

Notes: • Crude oil includes lease condensate. • 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, 1981 - Present

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

Figure S2. Petroleum Products Supplied, 1981 - Present

Source: Energy Information Administration, *Petroleum Supply Annual*, Tables S4 - S8. See Summary Statistics Table and Figure Sources.

Figure S3. Crude Oil Supply and Disposition, 1981 - Present

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

Figure S4. Crude Oil Ending Stocks¹, 1981 - Present

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

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

Table S2. Crude Oil Supply and Disposition, 1981 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month		Supply						Disposition
		Field Production		Imports			Unaccounted for Crude Oil ^c	Crude Losses
		Total Domestic	Alaskan	Total	SPR	Other		
1981	Average	8,572	1,809	4,396	256	4,141	83	5
1982	Average	8,649	1,898	3,488	165	3,323	71	3
1983	Average	8,688	1,714	3,329	234	3,096	114	2
1984	Average	8,679	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	(a)
1987	Average	8,349	1,962	4,674	73	4,601	145	(a)
1988	Average	8,140	2,017	5,107	51	5,055	196	(a)
1989	Average	7,613	1,874	5,843	56	5,787	200	(a)
1990	Average	7,355	1,773	5,894	27	5,867	258	(a)
1991	January	7,500	1,848	5,258	0	5,296	-59	0
	February	7,637	1,908	5,485	0	5,485	324	0
	March	7,548	1,887	5,186	0	5,186	43	(a)
	April	7,509	1,798	5,529	0	5,529	236	(a)
	May	7,409	1,771	6,363	0	6,363	513	(a)
	June	7,320	1,757	6,334	0	6,334	59	(a)
	July	7,347	1,775	5,955	0	5,955	403	0
	August	7,316	1,731	6,645	0	6,645	11	0
	September	7,368	1,787	5,812	0	5,812	484	0
	October	7,437	1,843	5,683	0	5,683	-59	(a)
	November	7,328	1,765	5,528	0	5,528	263	(a)
	December	7,299	1,718	5,565	0	5,565	146	0
	Average	7,417	1,798	5,782	0	5,782	195	(a)
1992	January	7,361	1,789	5,956	0	5,956	290	0
	February	7,389	1,808	5,079	0	5,079	229	(a)
	March	7,348	1,785	5,321	0	5,321	287	(a)
	April	7,293	1,741	6,127	0	6,127	189	0
	May	7,189	1,682	6,060	0	6,060	421	0
	June	7,167	1,703	6,171	34	6,138	259	(a)
	July	7,131	1,655	6,796	0	6,796	332	0
	August	6,922	1,635	6,457	18	6,439	65	(a)
	September	7,030	1,700	6,218	18	6,202	385	0
	October	7,128	1,696	6,696	49	6,647	290	(a)
	November	7,024	1,674	6,121	0	6,121	296	(a)
	December	7,103	1,705	5,937	0	5,937	61	(a)
	Average	7,171	1,714	6,083	10	6,073	258	(a)
1993	January	6,961	1,654	6,292	0	6,292	118	(a)
	February	6,943	1,628	6,156	0	6,156	162	(a)
	March	6,974	1,639	6,488	32	6,455	101	0
	April	6,881	1,587	6,928	112	6,817	333	(a)
	May	6,847	1,568	6,809	0	6,809	443	0
	June	6,795	1,520	7,201	0	7,201	293	0
	July	6,888	1,441	7,289	0	7,289	236	0
	August	6,758	1,528	6,641	0	6,641	3	0
	September	6,712	1,471	6,581	34	6,547	224	(a)
	October	6,839	1,610	7,181	0	7,181	109	0
	November	6,912	1,670	6,997	0	6,997	106	0
	December	6,858	1,671	6,838	0	6,838	-98	0
	Average	6,847	1,582	6,787	15	6,772	168	(a)

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

^d Previously published as crude used directly.

^e 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, 1981 - Present (Continued)
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Disposition					Ending Stocks ^a (Million Barrels)		
	Stock Change ^b		Refinery Inputs	Exports	Product Supplied	Total	SPR	Other Primary
	SPR	Other						
1981 Average	336	^e -46	12,470	228	^d 58	594	230	363
1982 Average	174	-38	11,774	236	^d 59	^e 644	294	^e 350
1983 Average	234	^e -20	11,685	164	66	723	379	344
1984 Average	195	4	12,044	181	64	798	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 January	0	-71	12,735	50	23	908	586	320
February	-147	379	13,046	152	17	913	582	331
March	-422	183	12,839	137	18	905	568	337
April	0	50	13,042	162	21	907	568	338
May	0	566	13,539	165	15	924	568	356
June	(s)	-299	13,918	78	16	915	568	347
July	(s)	-153	13,703	139	15	911	569	342
August	(s)	103	13,800	55	13	914	569	345
September	0	-156	13,694	109	16	909	569	341
October	(s)	51	12,896	92	22	911	569	342
November	(s)	43	12,929	126	22	912	569	344
December	(s)	-611	13,465	133	23	893	569	325
Average	-47	5	13,301	116	18	--	--	--
1992 January	(s)	540	12,923	118	26	910	569	341
February	0	171	12,486	22	17	915	569	346
March	(s)	-250	13,083	105	18	907	569	339
April	0	315	13,260	23	11	917	569	348
May	(s)	-145	13,679	106	10	912	569	344
June	34	-615	14,059	107	12	895	570	325
July	(s)	244	13,953	53	9	902	570	333
August	20	-144	13,426	133	8	898	570	328
September	43	-204	13,714	68	11	893	571	322
October	69	342	13,584	106	10	906	574	333
November	15	-243	13,547	111	10	899	574	325
December	22	-234	13,194	107	12	893	575	318
Average	17	-18	13,411	89	13	--	--	--
1993 January	19	276	12,938	129	10	902	575	327
February	18	201	12,865	166	10	908	576	332
March	58	154	13,200	139	11	915	578	337
April	136	387	13,538	73	9	930	582	349
May	13	134	13,829	112	10	935	582	353
June	21	-20	14,129	150	8	935	583	352
July	19	-13	14,136	62	9	935	583	352
August	24	-529	13,844	55	8	920	584	335
September	52	-491	13,841	107	8	906	586	321
October	19	309	13,729	62	10	917	586	330
November	18	233	13,686	67	10	924	587	337
December	9	-62	13,571	63	16	922	587	335
Average	34	47	13,613	98	10	--	--	--

Footnotes continued.

SPR = Strategic Petroleum Reserve.

(s)=Less than 500 barrels per day.

Notes: • Crude oil includes lease condensate. • 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, 1981 - Present
(Thousand Barrels per Day)

Year/Month		Imports from Arab-OPEC Sources							
		Algeria		Iraq		Kuwait		Libya	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	311	261	(a)	0	0	0	319	317
1982	Average	170	90	3	3	5	2	26	23
1983	Average	240	176	10	10	14	7	0	0
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	January	327	48	0	0	0	0	0	0
	February	246	20	0	0	0	0	0	0
	March	222	45	0	0	0	0	0	0
	April	282	74	0	0	0	0	0	0
	May	308	72	0	0	0	0	0	0
	June	304	37	0	0	0	0	0	0
	July	202	28	0	0	0	0	0	0
	August	182	16	0	0	0	0	0	0
	September	205	19	0	0	34	34	0	0
	October	235	53	0	0	33	33	0	0
	November	278	58	0	0	0	0	0	0
	December	247	54	0	0	0	0	0	0
	Average	253	44	0	0	6	6	0	0
1992	January	206	37	0	0	0	0	0	0
	February	218	57	0	0	0	0	0	0
	March	215	37	0	0	0	0	0	0
	April	182	19	0	0	0	0	0	0
	May	202	7	0	0	0	0	0	0
	June	144	12	0	0	0	0	0	0
	July	179	37	0	0	58	23	0	0
	August	261	45	0	0	66	33	0	0
	September	184	19	0	0	70	33	0	0
	October	186	8	0	0	137	109	0	0
	November	171	0	0	0	117	117	0	0
	December	203	9	0	0	165	149	0	0
	Average	196	24	0	0	51	39	0	0
1993	January	153	28	0	0	144	129	0	0
	February	256	0	0	0	251	229	0	0
	March	185	7	0	0	316	300	0	0
	April	258	26	0	0	279	279	0	0
	May	228	3	0	0	222	222	0	0
	June	169	32	0	0	235	235	0	0
	July	246	6	0	0	368	362	0	0
	August	241	28	0	0	467	451	0	0
	September	192	0	0	0	445	431	0	0
	October	317	80	0	0	530	526	0	0
	November	222	52	0	0	486	470	0	0
	December	169	25	0	0	484	484	0	0
	Average	220	24	0	0	353	344	0	0

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Arab-OPEC Sources						Total Arab OPEC	
		Qatar		Saudi Arabia ^b		United Arab Emirates			
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	7	7	1,129	1,112	81	77	1,848	1,774
1982	Average	7	7	552	530	92	81	854	736
1983	Average	(a)	0	337	321	30	18	632	533
1984	Average	5	4	325	309	117	90	819	634
1985	Average	(a)	0	166	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	January	0	0	1,934	1,782	0	0	2,261	1,830
	February	0	0	1,566	1,538	0	0	1,812	1,559
	March	0	0	1,683	1,646	0	0	1,905	1,691
	April	0	0	1,764	1,702	0	0	2,046	1,776
	May	0	0	2,258	2,053	0	0	2,566	2,124
	June	0	0	1,841	1,795	0	0	2,145	1,832
	July	0	0	1,725	1,641	0	0	1,928	1,670
	August	0	0	2,019	1,964	7	0	2,208	1,980
	September	0	0	1,708	1,582	0	0	1,947	1,615
	October	0	0	1,671	1,545	18	18	1,956	1,649
	November	0	0	1,778	1,626	16	0	2,072	1,684
	December	0	0	1,645	1,566	0	0	1,892	1,620
	Average	0	0	1,802	1,703	3	2	2,064	1,754
1992	January	0	0	2,017	1,900	18	0	2,241	1,937
	February	0	0	1,776	1,687	0	0	1,995	1,745
	March	0	0	1,707	1,568	0	0	1,922	1,605
	April	0	0	1,734	1,524	0	0	1,916	1,543
	May	0	0	1,764	1,584	0	0	1,966	1,591
	June	0	0	1,744	1,610	0	0	1,888	1,621
	July	8	0	1,713	1,599	0	0	1,958	1,659
	August	0	0	1,594	1,473	7	0	1,929	1,551
	September	0	0	1,593	1,477	0	0	1,847	1,529
	October	0	0	1,593	1,482	4	0	1,920	1,599
	November	0	0	1,608	1,540	17	0	1,913	1,657
	December	0	0	1,793	1,725	28	0	2,188	1,882
	Average	1	0	1,720	1,597	6	0	1,974	1,660
1993	January	0	0	1,688	1,571	0	0	1,984	1,728
	February	0	0	1,626	1,480	0	0	2,133	1,709
	March	6	0	1,479	1,349	0	0	1,987	1,655
	April	0	0	1,644	1,515	17	17	2,198	1,837
	May	0	0	1,524	1,361	59	59	2,034	1,646
	June	0	0	1,540	1,413	66	66	2,010	1,746
	July	0	0	1,283	1,171	19	0	1,917	1,538
	August	0	0	1,151	1,036	0	0	1,859	1,515
	September	0	0	1,329	1,181	0	0	1,966	1,612
	October	0	0	1,115	969	0	0	1,961	1,574
	November	0	0	1,281	1,152	1	0	1,989	1,673
	December	0	0	1,330	1,205	0	0	1,983	1,713
	Average	1	0	1,414	1,282	14	12	2,000	1,661

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Other-OPEC Sources							
		Ecuador		Gabon		Indonesia		Iran	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	48	38	35	35	366	318	0	0
1982	Average	42	32	40	40	248	226	35	35
1983	Average	61	56	59	59	338	315	48	48
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	° (a)	° (a)
1989	Average	89	80	50	49	183	158	0	0
1990	Average	49	38	64	64	114	98	0	0
1991	January	18	6	41	41	70	70	0	0
	February	66	55	95	95	162	153	0	0
	March	67	58	29	29	93	93	0	0
	April	35	24	72	72	69	69	0	0
	May	109	103	98	96	97	97	0	0
	June	129	128	70	70	187	187	0	0
	July	62	47	137	137	88	88	81	81
	August	112	93	56	56	93	87	48	48
	September	31	25	91	91	83	84	152	152
	October	30	24	137	137	118	91	43	43
	November	55	48	91	91	120	96	64	64
	December	41	23	91	91	163	134	0	0
	Average	63	53	84	84	111	102	32	32
1992	January	56	58	91	91	125	117	0	0
	February	61	48	105	105	39	39	0	0
	March	26	26	25	25	85	83	0	0
	April	53	48	186	186	54	49	0	0
	May	51	51	135	135	155	133	0	0
	June	105	101	129	129	109	102	0	0
	July	111	111	143	143	85	85	0	0
	August	99	93	108	109	91	85	0	0
	September	97	97	185	158	57	38	0	0
	October	42	38	167	167	54	43	0	0
	November	53	53	114	114	36	23	0	0
	December	24	24	120	120	60	60	0	0
	Average	65	62	124	123	78	70	0	0
1993	January	76	70	90	89	37	37	0	0
	February	14	14	88	88	52	51	0	0
	March	59	59	126	123	67	64	0	0
	April	74	62	127	127	76	76	0	0
	May	56	56	169	169	82	82	0	0
	June	75	75	107	107	97	67	0	0
	July	96	96	168	168	55	55	0	0
	August	121	121	152	152	95	80	0	0
	September	49	49	211	211	51	40	0	0
	October	146	135	242	242	131	82	0	0
	November	115	106	143	136	74	34	0	0
	December	84	84	191	191	156	114	0	0
	Average	81	78	152	151	81	65	0	0

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Other-OPEC Sources						Total OPEC ^c	
		Nigeria		Venezuela		Total Other OPEC			
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	620	611	406	147	1,476	1,149	3,323	2,922
1982	Average	514	510	412	155	1,291	998	2,146	1,734
1983	Average	302	301	422	164	1,231	944	1,862	1,477
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	2,637	2,113
1987	Average	535	529	804	488	1,767	1,435	3,060	2,400
1988	Average	618	607	784	439	1,661	1,281	3,520	2,696
1989	Average	815	800	873	485	2,010	1,582	4,140	3,376
1990	Average	800	784	1,025	666	2,052	1,650	4,296	3,514
1991	January	504	481	1,005	673	1,637	1,271	3,898	3,101
	February	721	717	959	686	2,003	1,705	3,815	3,264
	March	531	531	998	631	1,718	1,342	3,623	3,033
	April	677	649	845	470	1,698	1,283	3,744	3,059
	May	860	838	997	581	2,158	1,715	4,724	3,839
	June	832	827	1,135	705	2,354	1,915	4,498	3,747
	July	833	817	1,102	683	2,304	1,855	4,232	3,525
	August	1,016	983	1,070	701	2,394	1,966	4,602	3,946
	September	489	467	1,163	790	2,009	1,589	3,956	3,204
	October	651	623	1,067	777	2,067	1,694	4,023	3,343
	November	704	674	1,065	671	2,099	1,644	4,171	3,328
	December	617	593	967	655	1,899	1,496	3,791	3,116
	Average	703	683	1,035	668	2,028	1,622	4,092	3,377
1992	January	593	566	1,119	787	1,984	1,617	4,224	3,554
	February	322	303	1,028	655	1,555	1,150	3,549	2,895
	March	441	409	1,106	793	1,684	1,336	3,606	2,941
	April	798	788	1,079	722	2,169	1,791	4,085	3,334
	May	773	773	1,038	745	2,152	1,837	4,118	3,428
	June	740	740	1,059	738	2,141	1,809	4,029	3,430
	July	900	883	1,163	912	2,382	2,114	4,339	3,772
	August	815	795	1,102	841	2,215	1,922	4,144	3,473
	September	774	754	1,333	953	2,426	2,001	4,274	3,531
	October	827	813	1,497	1,073	2,587	2,133	4,507	3,732
	November	626	608	1,343	921	2,173	1,719	4,086	3,376
	December	549	532	1,164	763	1,917	1,499	4,105	3,381
	Average	681	665	1,170	828	2,117	1,746	4,092	3,406
1993	January	729	729	1,397	1,038	2,330	1,962	4,314	3,660
	February	927	913	1,296	925	2,377	1,990	4,510	3,699
	March	928	892	1,173	835	2,354	1,973	4,341	3,628
	April	892	871	1,314	1,023	2,483	2,158	4,682	3,995
	May	760	741	1,264	992	2,331	2,040	4,365	3,686
	June	848	827	1,292	999	2,418	2,075	4,428	3,821
	July	893	888	1,384	1,068	2,596	2,273	4,513	3,811
	August	562	549	1,383	1,135	2,313	2,037	4,172	3,552
	September	514	496	1,273	1,050	2,097	1,845	4,063	3,457
	October	603	593	1,276	993	2,398	2,045	4,359	3,619
	November	636	612	1,322	1,108	2,390	1,997	4,279	3,670
	December	598	569	1,230	952	2,260	1,910	4,242	3,624
	Average	740	722	1,300	1,010	2,354	2,026	4,354	3,687

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Non-OPEC Sources ^a											
		Angola		Australia		Bahama Islands		Brazil		Canada		China People's Republic	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	49	45	5	0	74	0	23	14	447	164	18	0
1982	Average	44	42	5	(s)	65	0	47	19	482	214	40	8
1983	Average	78	71	4	0	125	0	41	2	547	274	34	6
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	606	82	63
1988	Average	212	203	64	59	32	0	96	0	999	681	88	82
1989	Average	284	279	36	31	34	0	82	0	931	630	50	76
1990	Average	237	236	53	47	37	0	49	0	934	643	80	77
1991	January	232	232	21	21	25	0	31	0	978	718	68	63
	February	202	202	0	0	14	0	13	0	1,135	881	102	96
	March	186	186	0	0	0	0	0	0	1,058	764	96	96
	April	337	337	55	55	35	0	17	0	1,103	788	113	113
	May	220	220	64	57	42	0	31	0	1,027	752	119	113
	June	205	205	43	31	30	0	41	0	986	705	144	139
	July	264	264	20	20	19	0	21	0	848	615	88	88
	August	298	298	37	22	78	0	27	0	1,011	694	85	75
	September	230	230	24	24	23	0	19	0	1,137	849	91	86
	October	300	300	13	0	51	0	16	0	936	639	29	24
	November	213	213	25	13	48	0	45	0	1,107	796	96	96
	December	359	359	13	13	53	0	8	0	1,083	759	65	65
	Average	254	254	26	21	35	0	22	0	1,033	743	91	87
1992	January	360	360	11	11	63	0	18	0	1,045	786	144	144
	February	246	246	10	10	47	0	12	0	1,147	834	80	69
	March	339	339	0	0	76	0	(s)	0	1,100	832	75	75
	April	381	381	39	22	67	0	17	0	1,121	835	86	69
	May	264	264	0	0	46	0	18	0	1,013	779	129	114
	June	286	286	21	21	57	0	28	0	970	736	110	95
	July	443	443	20	20	22	0	25	0	1,044	798	68	64
	August	335	323	21	21	8	0	10	0	1,038	762	66	66
	September	248	248	0	0	8	0	21	0	1,131	839	80	75
	October	395	395	11	11	1	0	10	0	1,063	761	61	61
	November	458	458	53	49	20	0	32	0	1,037	784	86	86
	December	279	279	38	38	19	0	50	0	1,122	816	97	90
	Average	336	336	19	17	36	0	20	0	1,089	797	90	84
1993	January	354	354	(s)	0	18	0	3	0	1,052	778	60	60
	February	348	348	0	0	26	0	22	0	1,095	782	44	44
	March	408	408	0	0	38	0	27	0	1,033	770	79	73
	April	344	344	0	0	16	0	56	0	1,052	783	0	0
	May	299	299	13	13	8	0	41	0	1,128	874	40	40
	June	209	209	34	34	7	0	19	0	1,117	911	48	46
	July	402	402	40	40	31	0	48	0	1,264	991	24	24
	August	258	258	33	27	41	0	32	0	1,247	966	38	38
	September	282	282	0	0	37	0	59	0	1,319	1,023	91	89
	October	440	440	53	47	53	0	15	0	1,370	1,030	61	61
	November	307	307	0	0	29	0	61	0	1,236	917	68	68
	December	379	379	53	53	30	0	10	0	1,255	964	61	61
	Average	336	336	19	18	28	0	33	0	1,181	900	51	50

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Non-OPEC Sources ^a									
		Colombia		Italy		Malaysia		Mexico		Netherlands	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	1	0	11	0	36	33	522	469	30	(a)
1982	Average	5	0	18	(a)	20	18	685	645	35	(a)
1983	Average	10	0	18	(a)	4	3	826	766	65	3
1984	Average	8	0	45	(a)	1	0	748	659	65	3
1985	Average	23	0	60	(a)	3	1	816	715	58	0
1986	Average	87	57	76	0	12	11	699	621	54	0
1987	Average	148	115	54	1	13	12	655	602	60	0
1988	Average	134	106	65	5	19	19	747	674	61	0
1989	Average	172	136	34	3	39	39	767	716	49	0
1990	Average	182	140	58	2	41	40	755	689	55	0
1991	January	194	174	25	0	0	0	798	778	6	0
	February	151	98	42	13	9	9	742	693	17	0
	March	157	127	29	0	21	21	795	772	33	0
	April	163	131	41	12	0	0	891	819	35	0
	May	163	112	60	0	66	66	757	736	45	0
	June	169	124	46	0	63	63	919	872	49	0
	July	163	111	54	0	9	9	835	748	47	0
	August	219	162	57	11	14	14	878	797	30	0
	September	168	103	89	0	10	10	805	768	44	0
	October	128	80	41	0	64	64	811	754	16	0
	November	145	135	15	0	10	10	716	656	24	0
	December	138	117	61	0	14	14	732	708	4	0
	Average	163	123	47	3	24	24	807	759	29	0
1992	January	158	111	51	0	0	0	764	721	31	0
	February	114	92	48	0	0	0	838	807	9	0
	March	101	74	44	0	0	0	846	809	34	0
	April	150	129	75	0	0	0	857	795	8	0
	May	57	46	57	0	5	5	788	764	27	0
	June	135	114	69	0	8	8	905	883	25	0
	July	103	93	36	0	40	40	830	788	21	0
	August	156	142	94	0	22	22	857	790	45	0
	September	190	179	81	0	17	17	755	720	39	0
	October	153	132	37	0	17	17	829	783	18	0
	November	127	84	33	0	8	8	762	700	26	0
	December	66	34	37	0	4	4	930	888	33	0
	Average	126	102	55	0	10	10	830	787	26	0
1993	January	188	167	56	0	0	0	858	820	11	0
	February	148	137	34	0	0	0	807	748	18	0
	March	161	129	43	0	11	10	844	798	10	0
	April	178	165	14	0	8	8	832	796	0	0
	May	147	90	26	0	21	10	917	846	10	0
	June	176	143	25	0	0	0	987	959	10	0
	July	204	184	25	0	11	11	943	878	21	0
	August	131	101	50	0	14	14	862	809	17	0
	September	224	170	32	0	28	28	929	867	22	0
	October	192	182	40	0	14	10	1,013	951	0	0
	November	164	143	30	0	0	0	1,116	1,041	(a)	0
	December	134	85	0	0	28	28	909	837	6	0
	Average	171	141	31	0	11	10	919	863	10	0

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month	Imports from Non-OPEC Sources ^a											
	Netherlands Antilles		Norway		Puerto Rico		Russia ^d		Spain		Trinidad and Tobago	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981 Average	197	0	119	114	62	0	5	(a)	1	(a)	133	102
1982 Average	175	0	102	102	50	0	1	0	3	(a)	112	92
1983 Average	189	0	66	65	40	0	1	(a)	2	(a)	98	83
1984 Average	188	0	114	112	42	0	13	(a)	11	0	94	87
1985 Average	40	0	32	31	28	0	8	(a)	29	1	113	98
1986 Average	25	0	60	53	21	0	18	(a)	53	0	125	93
1987 Average	29	0	80	70	21	0	11	0	55	0	106	75
1988 Average	36	0	67	62	22	0	29	0	68	0	97	71
1989 Average	42	0	138	127	32	0	48	0	67	0	94	73
1990 Average	31	0	102	96	32	0	45	1	47	0	95	76
1991 January	103	0	45	34	22	0	28	0	26	0	75	64
February	23	0	37	37	20	0	17	0	18	0	76	76
March	56	0	25	16	14	0	13	0	13	0	86	73
April	61	0	51	35	23	0	39	0	66	0	84	64
May	113	0	165	156	42	0	42	0	53	0	61	61
June	84	0	99	84	19	0	0	0	41	0	118	104
July	86	0	69	63	25	0	58	0	22	0	91	72
August	100	0	142	136	42	0	80	11	48	0	91	86
September	67	0	79	72	34	0	23	0	42	0	119	75
October	90	0	98	98	12	0	13	0	24	0	88	76
November	100	0	73	65	35	0	16	0	19	0	77	69
December	88	0	94	88	36	0	16	0	26	0	87	71
Average	61	0	82	74	27	0	29	1	33	0	88	72
1992 January	40	0	25	17	32	0	17	0	35	0	108	79
February	82	0	11	0	23	0	3	0	18	0	109	76
March	49	0	11	0	18	0	0	0	37	0	105	85
April	73	0	155	147	14	0	0	0	35	0	79	75
May	59	0	210	200	22	0	0	0	30	0	69	54
June	83	0	234	225	36	0	0	0	46	0	94	74
July	49	0	186	179	11	0	72	32	18	0	103	78
August	65	0	142	134	38	0	62	31	29	0	106	54
September	60	0	103	102	37	0	53	0	56	0	84	56
October	90	0	190	177	29	0	9	0	32	0	108	71
November	56	0	111	104	26	0	0	0	36	0	85	62
December	80	0	140	133	28	0	0	0	17	0	91	71
Average	65	0	127	119	26	0	18	5	32	0	95	70
1993 January	73	0	70	70	37	0	0	0	44	0	59	48
February	80	0	62	61	21	0	0	0	19	0	72	58
March	61	0	122	115	26	0	0	0	21	0	92	71
April	97	0	170	170	18	0	32	32	61	0	78	55
May	81	0	222	222	38	0	32	32	42	0	68	51
June	55	0	160	160	29	0	77	51	20	0	77	55
July	52	0	215	215	49	0	157	134	41	0	82	53
August	56	0	180	161	30	0	26	0	37	0	50	37
September	101	0	113	113	28	0	57	29	54	0	70	55
October	122	0	115	93	30	0	176	123	33	0	69	54
November	90	0	162	155	23	0	56	32	30	0	66	55
December	118	0	108	101	14	0	38	0	42	0	103	71
Average	82	0	142	137	29	0	55	36	37	0	74	55

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Non-OPEC Sources ^a						Total Non-OPEC		Total Imports	
		United Kingdom		Virgin Islands		Other Non-OPEC					
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	375	369	327	0	236	183	2,672	1,474	5,996	4,396
1982	Average	456	441	316	0	306	174	2,968	1,754	5,113	3,488
1983	Average	382	365	282	0	378	215	3,189	1,853	5,051	3,329
1984	Average	402	378	294	0	411	210	3,388	1,914	5,437	3,426
1985	Average	310	278	247	0	394	137	3,237	1,888	5,067	3,201
1986	Average	350	317	244	0	426	144	3,367	2,065	6,224	4,178
1987	Average	352	304	272	0	459	196	3,617	2,274	6,678	4,674
1988	Average	315	254	242	0	487	196	3,882	2,411	7,402	5,107
1989	Average	215	160	321	0	457	197	3,921	2,467	8,061	5,843
1990	Average	189	155	282	0	417	180	3,721	2,381	8,018	5,894
1991	January	32	19	261	0	235	91	3,205	2,195	7,103	5,296
	February	34	21	222	0	180	96	3,051	2,221	6,865	5,485
	March	48	19	214	0	179	60	3,023	2,133	6,646	5,166
	April	61	37	245	0	256	99	3,674	2,470	7,418	5,529
	May	222	188	264	0	239	63	3,794	2,524	8,518	6,363
	June	105	70	234	0	349	189	3,747	2,587	8,245	6,334
	July	228	164	191	0	384	275	3,524	2,430	7,755	5,955
	August	254	217	208	0	369	197	4,067	2,699	8,670	6,845
	September	218	194	269	0	374	197	3,871	2,608	7,826	5,812
	October	201	166	262	0	252	139	3,444	2,340	7,467	5,683
	November	84	18	264	0	335	130	3,444	2,200	7,615	5,528
	December	154	151	286	0	229	104	3,546	2,448	7,337	5,565
	Average	138	106	243	0	282	137	3,535	2,405	7,627	5,782
1992	January	129	115	250	0	208	59	3,488	2,402	7,712	5,956
	February	63	0	222	0	196	50	3,278	2,184	6,827	5,079
	March	79	52	202	0	345	114	3,482	2,380	7,068	5,321
	April	157	128	234	0	458	212	4,007	2,793	8,092	6,127
	May	198	180	246	0	467	225	3,705	2,633	7,823	6,060
	June	248	206	266	0	297	95	3,917	2,741	7,948	6,171
	July	354	337	280	0	415	152	4,140	3,024	8,479	6,796
	August	295	282	263	0	464	357	4,116	2,984	8,260	6,457
	September	341	291	217	0	382	180	3,904	2,687	8,178	6,218
	October	411	411	254	0	279	144	3,998	2,964	8,505	6,696
	November	336	285	274	0	219	124	3,786	2,745	7,872	6,121
	December	148	110	273	0	283	92	3,734	2,556	7,839	5,937
	Average	230	200	249	0	335	149	3,786	2,676	7,888	6,083
1993	January	229	201	252	0	325	104	3,690	2,602	8,004	6,292
	February	173	127	244	0	223	151	3,438	2,457	7,948	6,156
	March	332	298	244	0	393	186	3,944	2,859	8,285	6,488
	April	413	337	245	0	472	243	4,087	2,933	8,768	6,928
	May	522	495	279	0	363	152	4,298	3,123	8,663	6,809
	June	458	408	290	0	581	405	4,377	3,380	8,805	7,201
	July	292	247	202	0	600	299	4,705	3,477	9,219	7,289
	August	343	323	256	0	556	356	4,257	3,088	8,429	6,641
	September	286	217	184	0	552	251	4,468	3,124	8,531	6,581
	October	353	338	236	0	453	233	4,838	3,562	9,197	7,181
	November	351	340	330	0	503	270	4,624	3,327	8,903	6,997
	December	432	403	288	0	394	231	4,402	3,214	8,645	6,838
	Average	350	312	254	0	452	240	4,266	3,100	8,620	6,787

^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 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.

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

^e 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.

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, 1981 - Present

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

Figure S6. Motor Gasoline Ending Stocks, 1981 - Present

Note: Total motor gasoline includes motor gasoline blending components and finished motor gasoline.

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

Table S4. Finished Motor Gasoline Supply and Disposition, 1981 - 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 ^{d,e}	Exports	Product Supplied ^b	Motor Gasoline		Oxygenates
							Total ^g	Finished	
1981	Average	6,405	157	^f -28	2	6,568	253	203	--
1982	Average	6,338	197	-25	20	6,539	^f 235	^f 194	--
1983	Average	6,340	247	^f -45	10	6,622	222	186	--
1984	Average	6,453	299	54	6	6,893	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									
	January	6,629	228	162	50	6,845	225	186	--
	February	6,573	115	-252	102	6,838	219	179	--
	March	6,643	235	-236	97	7,017	210	171	--
	April	6,742	381	-87	53	7,137	205	169	--
	May	7,063	528	95	59	7,437	209	172	--
	June	7,351	364	160	99	7,456	214	177	--
	July	7,274	232	-177	122	7,561	208	172	--
	August	7,247	385	7	98	7,528	209	172	--
	September	7,030	312	195	63	7,083	216	178	--
	October	6,749	236	-354	58	7,281	203	167	--
	November	7,018	322	228	104	7,008	209	173	--
	December	7,354	216	267	79	7,224	219	182	--
	Average	6,975	297	3	82	7,188	--	--	--
1992									
	January	7,013	246	304	87	6,869	229	191	--
	February	6,726	275	-22	59	6,963	230	191	--
	March	6,683	247	-278	71	7,137	220	182	--
	April	6,954	428	54	90	7,238	218	183	--
	May	7,092	392	74	82	7,328	220	186	--
	June	7,198	424	76	86	7,460	225	188	--
	July	7,195	303	-249	108	7,639	215	180	--
	August	6,817	240	-446	123	7,380	201	167	--
	September	7,071	418	60	85	7,344	206	168	--
	October	7,198	193	-41	94	7,338	204	167	--
	November	7,323	170	318	74	7,102	214	177	--
	December	7,411	202	32	184	7,396	216	178	--
	Average	7,058	294	-11	96	7,268	--	--	--
1993									
	January	7,228	204	652	142	6,839	240	198	15
	February	7,144	216	149	99	7,112	245	202	14
	March	6,904	177	-417	109	7,389	230	189	15
	April	7,126	253	-168	111	7,435	225	184	15
	May	7,446	323	93	90	7,585	225	187	17
	June	7,442	251	-88	81	7,700	221	184	18
	July	7,337	300	-240	92	7,785	215	177	20
	August	7,335	283	-323	77	7,864	202	167	21
	September	7,573	267	148	85	7,607	208	171	19
	October	7,394	210	142	80	7,382	212	176	18
	November	7,652	252	245	126	7,533	222	183	16
	December	7,725	231	132	162	7,661	226	187	13
	Average	7,360	247	26	105	7,476	--	--	--

^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. Refer to Appendix B, Explanatory Note 11 for 1992 new basis product supplied.

^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.

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 S7. Distillate Fuel Oil Supply and Disposition, 1981 - Present

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

Figure S8. Distillate Fuel Oil Ending Stocks, 1981 - Present

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

Table 95. Distillate Fuel Oil Supply and Disposition, 1981 - 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 ^d	Total	0.05% Sulfur and Under	Greater than 0.05% Sulfur
1981 Average	2,813	173	d -38	5	2,829	182	-	-
1982 Average	2,806	93	-35	74	2,871	d 179	-	-
1983 Average	2,486	174	d -124	64	2,660	140	-	-
1984 Average	2,681	272	87	51	2,848	161	-	-
1985 Average	2,667	200	-48	67	2,868	144	-	-
1986 Average	2,798	247	31	100	2,914	155	-	-
1987 Average	2,731	255	-86	66	2,978	134	-	-
1988 Average	2,899	302	-30	69	3,122	124	-	-
1989 Average	2,869	306	-46	67	3,157	106	-	-
1990 Average	2,925	278	73	109	3,021	132	-	-
1991 January	2,845	192	-662	332	3,367	112	-	-
February	2,870	139	-359	393	2,976	102	-	-
March	2,865	206	-112	198	2,984	98	-	-
April	2,819	258	156	81	2,839	103	-	-
May	2,929	186	132	218	2,765	107	-	-
June	2,941	209	225	150	2,775	114	-	-
July	2,998	155	356	149	2,648	125	-	-
August	2,981	168	214	144	2,770	131	-	-
September	3,055	237	291	136	2,865	140	-	-
October	3,040	207	-59	259	3,047	138	-	-
November	3,103	249	206	224	2,921	144	-	-
December	3,107	252	-30	302	3,087	144	-	-
Average	2,962	205	31	215	2,921	-	-	-
1992 January	2,818	232	-541	360	3,231	127	-	-
February	2,661	217	-619	278	3,219	109	-	-
March	2,749	238	-358	138	3,207	98	-	-
April	2,930	202	-186	278	3,039	92	-	-
May	2,933	179	139	222	2,753	96	-	-
June	2,995	157	268	205	2,679	104	-	-
July	3,067	172	328	201	2,710	115	-	-
August	2,865	229	262	127	2,705	123	-	-
September	2,983	237	168	145	2,908	128	-	-
October	3,251	263	290	169	3,056	137	-	-
November	3,240	236	316	230	2,929	146	-	-
December	3,179	229	-183	276	3,316	141	-	-
Average	2,974	216	-8	219	2,979	-	-	-
1993 January	2,914	182	-318	287	3,128	131	15	115
February	2,815	224	-727	301	3,465	110	12	99
March	2,919	235	-420	154	3,420	97	11	87
April	3,047	209	71	241	2,943	99	12	88
May	2,994	153	108	355	2,685	103	12	91
June	3,093	168	241	158	2,863	110	15	95
July	3,186	130	346	296	2,674	121	21	100
August	3,100	159	243	196	2,820	128	44	84
September	3,205	137	102	267	2,973	131	48	84
October	3,432	242	453	237	2,983	145	55	90
November	3,474	214	127	342	3,218	149	64	85
December	3,382	180	-267	453	3,357	141	64	77
Average	3,132	184	1	274	3,041	-	-	-

^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.

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 S9. Residual Fuel Oil Supply and Disposition, 1981 - Present

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

Figure S10. Residual Fuel Oil Ending Stocks, 1981 - Present

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

Table S6. Residual Fuel Oil Supply and Disposition, 1981 - 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 ^d	
1981 Average	1,321	800	d -37	118	2,088	78
1982 Average	1,070	776	-32	209	1,716	d 66
1983 Average	882	699	d -55	185	1,421	49
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	(e)	186	1,264	47
1988 Average	926	644	-8	200	1,378	48
1989 Average	954	629	-2	215	1,370	44
1990 Average	950	504	13	211	1,229	49
1991 January	1,001	425	-19	320	1,124	48
February	1,050	384	-76	299	1,211	46
March	995	332	-85	178	1,234	43
April	916	416	68	145	1,119	45
May	929	425	50	300	1,003	47
June	933	512	-103	245	1,303	44
July	871	420	-1	176	1,117	44
August	925	599	68	216	1,240	46
September	838	481	78	168	1,074	48
October	814	438	6	217	1,029	48
November	896	455	24	189	1,139	49
December	1,051	547	28	264	1,307	50
Average	934	453	4	226	1,158	-
1992 January	965	364	-144	184	1,289	45
February	957	498	-55	176	1,334	44
March	990	397	-77	310	1,154	41
April	900	342	-78	285	1,055	39
May	964	328	67	207	1,019	41
June	894	334	-11	230	1,009	41
July	838	280	-37	169	986	40
August	815	347	125	96	941	44
September	810	349	123	149	887	47
October	818	376	-72	156	1,110	45
November	895	411	49	216	1,041	47
December	862	481	-127	158	1,312	43
Average	892	375	-20	193	1,094	-
1993 January	820	385	44	133	1,028	44
February	840	332	-74	113	1,132	42
March	818	360	-47	152	1,073	40
April	896	377	32	169	1,071	41
May	908	316	54	137	1,033	43
June	795	308	87	147	870	46
July	762	337	-102	122	1,079	43
August	752	387	64	120	955	44
September	822	430	-31	110	1,173	44
October	841	412	103	94	1,057	47
November	899	361	48	86	1,126	48
December	869	467	-129	98	1,367	44
Average	835	373	4	123	1,080	-

^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.

(e)=Less than 500 barrels per day.

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 S11. Jet Fuel Supply and Disposition, 1981 - Present

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

Figure S12. Jet Fuel Ending Stocks, 1981 - Present

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

Table S7. Jet Fuel Supply and Disposition, 1981 - 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
		Total	Kerosene-Type				Total	Kerosene-Type	
1981	Average	968	775	38	^c -4	2	1,007	809	41
1982	Average	978	778	29	-12	6	1,013	804	^c 37
1983	Average	1,022	817	29	^c (a)	6	1,048	839	39
1984	Average	1,132	919	62	9	9	1,175	953	42
1985	Average	1,189	983	39	-4	13	1,218	1,005	40
1986	Average	1,283	1,097	57	25	18	1,307	1,105	50
1987	Average	1,343	1,138	67	(a)	24	1,385	1,181	50
1988	Average	1,370	1,184	90	-17	28	1,449	1,238	44
1989	Average	1,403	1,197	108	-8	27	1,489	1,284	41
1990	Average	1,488	1,311	108	31	43	1,522	1,340	52
1991	January	1,509	1,354	67	-55	73	1,559	1,378	50
	February	1,548	1,384	44	-108	159	1,541	1,380	47
	March	1,299	1,157	65	-99	40	1,423	1,270	44
	April	1,286	1,135	73	-8	38	1,329	1,173	44
	May	1,367	1,191	87	85	35	1,334	1,143	47
	June	1,473	1,300	64	58	13	1,465	1,280	48
	July	1,426	1,255	67	-47	31	1,509	1,343	47
	August	1,486	1,316	88	21	11	1,543	1,343	48
	September	1,495	1,322	92	71	10	1,506	1,321	50
	October	1,415	1,253	59	-66	50	1,489	1,319	48
	November	1,433	1,276	56	15	5	1,469	1,282	48
	December	1,530	1,357	42	22	59	1,492	1,338	49
	Average	1,438	1,274	67	-9	43	1,471	1,296	--
1992	January	1,352	1,200	39	-127	44	1,473	1,314	45
	February	1,311	1,184	56	-73	42	1,398	1,250	43
	March	1,347	1,215	56	31	7	1,365	1,218	44
	April	1,286	1,131	74	-68	18	1,409	1,262	42
	May	1,393	1,214	93	114	26	1,346	1,198	45
	June	1,374	1,234	86	-21	45	1,436	1,308	45
	July	1,473	1,328	81	59	62	1,433	1,280	46
	August	1,471	1,339	111	-32	28	1,585	1,438	45
	September	1,448	1,296	93	78	20	1,442	1,313	48
	October	1,408	1,265	105	-12	44	1,480	1,315	47
	November	1,456	1,319	90	-41	59	1,528	1,411	46
	December	1,462	1,336	102	-101	112	1,553	1,410	43
	Average	1,399	1,254	82	-16	43	1,454	1,310	--
1993	January	1,437	1,308	89	-64	134	1,456	1,369	41
	February	1,440	1,316	110	53	17	1,480	1,337	43
	March	1,463	1,332	78	-15	101	1,453	1,335	42
	April	1,391	1,265	88	-23	88	1,413	1,299	41
	May	1,427	1,302	75	42	60	1,401	1,288	43
	June	1,547	1,407	111	83	45	1,530	1,362	45
	July	1,485	1,359	94	42	71	1,466	1,338	47
	August	1,358	1,257	100	-98	42	1,514	1,413	43
	September	1,338	1,241	106	-69	16	1,497	1,357	41
	October	1,329	1,242	143	-27	20	1,479	1,389	41
	November	1,386	1,301	105	8	29	1,453	1,357	41
	December	1,459	1,382	105	-13	85	1,493	1,441	40
	Average	1,422	1,309	100	-7	59	1,469	1,357	--

^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.

(a) = Less than 500 barrels per day.

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 S13. Propane/Propylene Supply and Disposition, 1981 - Present

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

Figure S14. Propane/Propylene Ending Stocks, 1981 - Present

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

Table S8. Propane/Propylene Supply and Disposition, 1981 - 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	
1981	Average	745	70	^c 18	5	18	76
1982	Average	711	83	^c -59	4	31	^c 54
1983	Average	730	44	^c -24	4	43	^c 48
1984	Average	808	67	^c 7	4	30	58
1985	Average	816	67	-50	3	48	39
1986	Average	817	110	64	4	28	63
1987	Average	828	68	-41	8	24	48
1988	Average	863	108	7	8	31	50
1989	Average	862	111	-52	11	24	32
1990	Average	878	115	48	(a)	28	49
1991	January	920	105	-449	0	51	1,422
	February	923	90	-174	0	40	1,147
	March	912	56	-10	0	45	933
	April	900	101	179	0	25	798
	May	922	90	214	0	31	767
	June	908	81	223	0	22	741
	July	901	91	81	0	15	895
	August	891	73	40	0	13	910
	September	905	92	-22	0	14	1,006
	October	902	148	35	0	18	995
	November	930	82	-37	0	20	1,030
	December	964	86	-128	(a)	38	1,139
	Average	915	91	-3	(a)	28	982
							-
1992	January	949	90	-282	(a)	72	1,249
	February	955	86	-200	(a)	27	1,214
	March	940	68	-15	(a)	26	997
	April	961	80	120	0	24	898
	May	977	72	253	(a)	23	773
	June	978	66	206	(a)	27	811
	July	964	68	178	(a)	35	821
	August	946	85	117	(a)	25	889
	September	931	71	51	(a)	25	927
	October	933	104	-88	(a)	30	1,095
	November	964	99	-243	0	33	1,273
	December	977	131	-385	0	45	1,448
	Average	956	85	-24	(a)	33	1,032
							-
1993	January	968	79	-212	1	31	1,227
	February	964	82	-255	(a)	37	1,264
	March	966	85	-109	(a)	32	1,129
	April	960	108	238	(a)	40	809
	May	951	96	266	0	30	750
	June	967	75	265	0	23	754
	July	963	118	256	0	26	800
	August	960	116	178	0	27	871
	September	969	132	92	0	17	992
	October	954	107	-11	0	13	1,059
	November	963	138	-126	0	17	1,209
	December	953	102	-195	0	25	1,225
	Average	963	103	34	(a)	26	1,006
							-

^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.

(a) = Less than 500 barrels per day.

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, 1981 - Present

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

Figure S16. Liquefied Petroleum Gases Ending Stocks, 1981 - Present

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

Table S9. Liquefied Petroleum Gases Supply and Disposition, 1981 - 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	
1981 Average	1,571	244	^c 18	289	42	1,466	135
1982 Average	1,528	226	-111	300	65	1,499	^c 94
1983 Average	1,642	190	^c -4	253	73	1,509	^c 101
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	1,617	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 January	1,753	148	-658	364	56	2,139	78
February	1,865	126	-271	322	60	1,880	70
March	1,942	91	113	249	56	1,615	73
April	1,937	154	346	237	31	1,477	84
May	1,989	129	428	239	45	1,407	97
June	1,949	148	328	245	32	1,492	107
July	1,913	151	211	253	24	1,575	113
August	1,899	143	175	255	18	1,594	119
September	1,806	147	-84	288	31	1,718	116
October	1,805	233	33	345	31	1,629	117
November	1,789	156	-330	413	40	1,821	107
December	1,810	139	-488	437	73	1,927	92
Average	1,871	147	-15	304	41	1,689	-
1992 January	1,820	142	-452	384	80	1,950	78
February	1,917	126	-365	326	33	2,051	68
March	2,033	97	153	247	43	1,687	72
April	2,102	127	401	233	45	1,549	84
May	2,106	106	489	245	44	1,433	100
June	2,102	104	334	257	59	1,556	110
July	2,090	106	345	255	52	1,544	120
August	2,016	148	369	233	55	1,507	132
September	1,886	114	37	299	45	1,620	133
October	1,892	171	-242	369	39	1,898	125
November	1,854	148	-541	403	43	2,097	109
December	1,849	176	-660	453	49	2,184	89
Average	1,972	131	-10	309	49	1,755	-
1993 January	1,845	126	-492	444	39	1,980	73
February	1,929	138	-309	363	55	1,958	65
March	2,103	124	53	256	47	1,871	66
April	2,172	161	472	250	69	1,542	81
May	2,116	153	540	254	50	1,425	97
June	2,141	111	489	247	41	1,476	112
July	2,125	175	391	246	54	1,609	124
August	2,105	168	442	269	45	1,517	138
September	1,984	210	204	312	35	1,644	144
October	1,899	200	-154	381	21	1,851	139
November	1,789	181	-527	469	21	2,007	123
December	1,710	166	-545	440	40	1,942	106
Average	1,993	160	49	327	43	1,734	-

^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.

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, 1981 - 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	
1981	Average	2,771	188	^c -42	723	197	2,081	241
1982	Average	2,475	305	-88	787	205	1,858	^c 216
1983	Average	2,437	382	^c -6	712	236	1,877	^c 217
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	2,048	201
1987	Average	2,737	543	-1	829	284	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	299	2,402	201
1991	January	2,653	748	204	844	317	2,036	207
	February	2,688	575	383	728	275	1,876	217
	March	2,576	551	151	819	239	1,919	222
	April	2,724	607	133	753	228	2,217	226
	May	2,853	800	198	900	327	2,228	232
	June	3,030	615	-123	1,092	304	2,372	228
	July	3,029	776	-143	1,081	321	2,545	224
	August	2,993	642	-169	1,013	296	2,496	219
	September	3,010	746	101	802	287	2,586	222
	October	2,824	611	-218	944	211	2,498	215
	November	2,750	850	-81	1,093	238	2,349	213
	December	2,797	577	-163	1,147	304	2,085	208
	Average	2,826	675	18	936	277	2,269	-
1992	January	2,702	734	203	787	272	2,175	214
	February	2,642	575	183	883	240	1,911	219
	March	2,752	713	238	730	239	2,258	227
	April	2,900	793	-31	1,043	217	2,464	226
	May	2,929	665	-113	910	199	2,598	222
	June	3,126	669	-42	787	225	2,826	221
	July	3,207	740	-156	996	284	2,822	216
	August	3,068	729	-116	884	227	2,802	212
	September	3,114	748	188	675	336	2,663	218
	October	2,923	701	-182	954	295	2,557	212
	November	2,915	697	-24	989	264	2,383	212
	December	2,853	711	-165	1,223	352	2,154	^c 207
	Average	2,928	707	-3	906	263	2,470	-
1993	January	3,147	726	^c 739	929	271	1,933	229
	February	2,853	773	111	1,057	282	2,176	233
	March	2,887	826	245	843	269	2,356	240
	April	2,935	753	-29	1,033	315	2,368	239
	May	2,941	834	80	1,048	278	2,388	242
	June	3,099	854	-239	1,064	278	2,650	235
	July	3,213	894	61	1,008	303	2,735	237
	August	3,167	693	-28	940	294	2,654	236
	September	3,067	800	-268	1,104	282	2,749	228
	October	3,195	810	-114	1,189	369	2,561	224
	November	3,080	795	-222	1,355	309	2,433	217
	December	2,816	678	-376	1,403	349	2,117	206
	Average	3,035	770	-2	1,081	300	2,426	-

^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.

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, and liquefied petroleum gases. • 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 Table and Figure 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* (1981 through 1993).
- Data on crude oil production 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. Crude oil production data for 1993 reflect data received as of April 1994. Data for 1993 received after April will be published as an appendix in the following year's *Petroleum Supply Annual*.

- Data on exports of crude oil and petroleum products are received from the U.S. Bureau of the Census. Export statistics reflect 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.

Summary Statistics Explanatory Notes

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

Note 1. 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 and Gas 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 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 Mineral Management Service, and the Conservation Committee of California Oil and Gas Producers. The EIA incorporates production data into its Crude Oil Production System (COPS) as the data are received from the reporting agencies. Tables S1 and S2 present the 1993 crude oil production data received by the EIA as of April 1994. Crude oil production data for 1993 received after April 1994 will be published later as an appendix in the following year's *Petroleum Supply Annual* (PSA). Table C1 of this publication presents the 1992 crude oil production a year after it was published in the PSA 1992.

Note 2. 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.

Detailed Statistics

At some locations, oil skimmers and knockout tanks (in background) are used to remove waste water from the crude oil. The crude oil is then put into storage tanks and gauged.

Table 1. U.S. Petroleum Balance, 1993

Commodity		Thousand Barrels	Thousand Barrels per Day
Crude Oil			
Field Production			
(1)	Alaska	577,494	1,582
(2)	Lower 48 States	1,921,539	5,264
(3)	Total U.S.	2,499,033	6,847
Net Imports			
(4)	Imports (Gross Excluding Strategic Petroleum Reserve (SPR))	2,471,863	6,772
(5)	SPR Imports	5,367	15
(6)	Exports	35,834	98
(7)	Imports (Net Including SPR)	2,441,396	6,669
Other Sources			
(8)	SPR Stock Change (Withdrawal (+), Addition (-))	-12,356	-34
(9)	Other Stock Change (Withdrawal (+), Addition (-))	-17,245	-47
(10)	Product Supplied and Losses	-3,656	-10
(11)	Unaccounted for ^a	61,470	168
(12)	Total Other Sources	28,213	77
(13)	Crude Input to Refineries	4,968,641	13,613
(13) = (3) + (7) + (12)			
Natural Gas Liquids (NGL)			
(14)	Field Production ^b	653,825	1,791
(15)	Net Imports ^c	11,299	31
(16)	Stock Change (Withdrawal (+), Addition (-)) ^d	-1,476	-4
(17)	Total NGL Supply	663,648	1,818
Other Liquids			
Unfinished Oils and Gasoline Blending Components, Total			
(18)	Stock Change (Withdrawal (+), Addition (-))	364	1
(19)	Net Imports	194,224	532
(20)	Other Liquids New Supply (Field Production)	72,141	198
(21)	Refinery Processing Gain ^a	279,713	766
(22)	Crude Oil Product Supplied	3,647	10
(23)	Total Other Liquids	550,089	1,507
(23) = (18) through (22)			
(24)	Total Production of Products	6,162,376	16,936
(24) = (13) + (17) + (23)			
Net Imports of Refined Products			
(25)	Imports (Gross)	480,541	1,262
(26)	Exports	326,980	896
(27)	Imports (Net)	153,561	366
(28)	Total New Supply of Products	6,315,939	17,304
(28) = (24) + (27)			
(29)	Refined Products Stock Change (Withdrawal (+), Addition (-))	-24,532	-67
(30)	Total Petroleum Products Supplied for Domestic Use	6,291,407	17,237
(30) = (28) + (29)			
(31)	Finished Motor Gasoline	2,728,850	7,476
(32)	Distillate Fuel Oil	1,110,043	3,041
(33)	Residual Fuel Oil	394,262	1,080
(34)	Jet Fuel	536,309	1,469
(35)	Liquefied Petroleum Gases	632,916	1,734
(36)	Other ^d	885,380	2,426
(37)	Crude Oil	3,647	10
(38)	Total Products Supplied	6,291,407	17,237
(38) = (31) through (37)			
Ending Stocks, All Oils			
(39)	Crude Oil (Excluding SPR)	335,385	--
(40)	Strategic Petroleum Reserve	587,080	--
(41)	Finished Motor Gasoline	187,051	--
(42)	Distillate Fuel Oil	140,867	--
(43)	Residual Fuel Oil	44,194	--
(44)	Jet Fuel	40,392	--
(45)	Liquefied Petroleum Gases	106,484	--
(46)	Other ^d	205,766	--
(47)	Total Stocks	1,647,219	--
(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.

^b Includes fuel ethanol blended into finished motor gasoline.

^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.

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, 1993
(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	2,499,033	--	2,477,230	61,470	29,601	9	4,968,641	35,634	3,647	922,465
Natural Gas Liquids and LRGs	633,518	215,907	70,089	--	19,239	--	179,213	16,203	704,839	117,065
Pentanes Plus	121,852	--	11,842	--	1,476	--	59,762	543	71,923	10,581
Liquefied Petroleum Gases	511,666	215,907	58,227	--	17,763	--	119,461	15,660	632,916	106,484
Ethane/Ethylene	202,782	10,104	5,286	--	1,506	--	0	0	216,666	20,230
Propane/Propylene	187,166	164,324	37,714	--	12,321	--	29	9,648	367,206	51,205
Normal Butane/Butylene	51,661	36,926	10,796	--	4,480	--	57,552	6,011	31,342	24,812
Isobutane/Isobutylene	70,057	4,553	4,429	--	-544	--	61,880	0	17,703	10,237
Other Liquids	72,141	--	196,641	--	-364	--	334,664	2,617	-67,955	140,577
Other Hydrocarbons/Oxygenates	68,394	--	7,556	--	5,797	--	70,163	0	0	12,673
Unfinished Oils	--	--	179,301	--	-6,670	--	254,165	0	-67,984	88,420
Motor Gasoline Blend, Comp.	3,747	--	9,984	--	690	--	10,424	2,617	0	39,406
Aviation Gasoline Blend, Comp.	--	--	0	--	19	--	-48	0	29	78
Finished Petroleum Products	20,307	5,546,344	402,314	--	6,789	--	--	311,320	5,650,876	467,112
Finished Motor Gasoline	20,307	2,665,980	90,242	--	9,486	--	--	38,193	2,728,850	187,051
Reformulated	--	0	0	--	NA	--	--	NA	NA	0
Oxygenated	240,540	329,213	421	--	NA	--	--	NA	NA	33,548
Other	-220,233	2,336,767	89,821	--	NA	--	--	NA	NA	153,503
Finished Aviation Gasoline	--	7,782	78	--	254	--	--	0	7,606	1,811
Jet Fuel	--	518,851	36,483	--	-2,675	--	--	21,700	536,309	40,392
Naphtha-Type	--	40,990	3,690	--	-2,077	--	--	5,916	40,841	2,348
Kerosene-Type	--	477,861	32,793	--	-596	--	--	15,784	495,468	38,044
Kerosene	--	17,438	307	--	-1,658	--	--	1,289	18,114	4,069
Distillate Fuel Oil	--	1,143,075	67,184	--	260	--	--	99,957	1,110,043	140,867
0.05 percent sulfur and under	--	327,834	27,057	--	NA	--	--	NA	NA	63,690
Greater than 0.05 percent sulfur ...	--	815,241	40,127	--	NA	--	--	NA	NA	77,177
Residual Fuel Oil	--	304,780	136,151	--	1,605	--	--	45,064	394,262	44,194
Naphtha For Petro. Feed. Use	--	53,689	13,286	--	170	--	--	0	66,805	1,865
Other Oils For Petro. Feed. Use	--	104,045	40,343	--	-518	--	--	0	144,906	1,375
Special Naphthas	--	19,827	1,790	--	380	--	--	1,309	19,928	2,516
Lubricants	--	58,285	2,496	--	-1,487	--	--	6,782	55,486	11,862
Waxes	--	7,328	646	--	33	--	--	712	7,229	854
Petroleum Coke	--	226,016	689	--	-1,114	--	--	94,336	133,483	8,511
Asphalt and Road Oil	--	164,714	11,771	--	1,476	--	--	1,860	173,149	19,192
Still Gas	--	238,365	0	--	0	--	--	0	238,365	0
Miscellaneous Products	--	16,169	848	--	557	--	--	118	16,342	2,553
Total	3,224,999	5,762,251	3,146,454	61,470	55,245	9	5,462,536	365,974	6,291,407	1,647,219

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

^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.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 1993
(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	6,847	—	6,787	168	81	(s)	13,613	98	10
Natural Gas Liquids and LRGs	1,736	592	192	—	53	—	491	44	1,931
Pentanes Plus	334	—	32	—	4	—	164	1	197
Liquefied Petroleum Gases	1,402	592	160	—	49	—	327	43	1,734
Ethane/Ethylene	556	28	14	—	4	—	0	0	594
Propane/Propylene	513	450	103	—	34	—	(s)	26	1,006
Normal Butane/Butylene	142	101	30	—	12	—	158	16	86
Isobutane/Isobutylene	192	12	12	—	-1	—	170	0	49
Other Liquids	198	—	539	—	-1	—	917	7	-186
Other Hydrocarbons/Oxygenates	187	—	21	—	16	—	192	0	0
Unfinished Oils	—	—	491	—	-19	—	696	0	-186
Motor Gasoline Blend, Comp.	10	—	27	—	2	—	29	7	0
Aviation Gasoline Blend, Comp.	—	—	0	—	(s)	—	(s)	0	(s)
Finished Petroleum Products	56	15,195	1,102	—	19	—	—	853	15,482
Finished Motor Gasoline	56	7,304	247	—	26	—	—	105	7,476
Reformulated	—	0	0	—	NA	—	—	NA	NA
Oxygenated	659	902	1	—	NA	—	—	NA	NA
Other	-603	6,402	246	—	NA	—	—	NA	NA
Finished Aviation Gasoline	—	21	(s)	—	1	—	—	0	21
Jet Fuel	—	1,422	100	—	-7	—	—	59	1,469
Naphtha-Type	—	112	10	—	-6	—	—	16	112
Kerosene-Type	—	1,309	90	—	-2	—	—	43	1,357
Kerosene	—	48	1	—	-5	—	—	4	50
Distillate Fuel Oil	—	3,132	184	—	1	—	—	274	3,041
0.05 percent sulfur and under	—	898	74	—	NA	—	—	NA	NA
Greater than 0.05 percent sulfur	—	2,234	110	—	NA	—	—	NA	NA
Residual Fuel Oil	—	835	373	—	4	—	—	123	1,080
Naphtha For Petro. Feed. Use	—	147	36	—	(s)	—	—	0	183
Other Oils For Petro. Feed. Use	—	285	111	—	-1	—	—	0	397
Special Naphthas	—	54	5	—	1	—	—	4	55
Lubricants	—	160	7	—	-4	—	—	19	152
Waxes	—	20	2	—	(s)	—	—	2	20
Petroleum Coke	—	619	2	—	-3	—	—	258	366
Asphalt and Road Oil	—	451	32	—	4	—	—	5	474
Still Gas	—	653	0	—	0	—	—	0	653
Miscellaneous Products	—	44	2	—	2	—	—	(s)	45
Total	8,836	15,787	6,620	168	151	(s)	15,021	1,003	17,237

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

^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.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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. PAD District I—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, 1993
(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	10,032	--	488,903	-3,677	279	293	0	495,241	2	0	14,320
Natural Gas Liquids and LRGs	10,071	16,754	8,662	--	39,712	518	--	5,009	661	68,991	5,492
Pentanes Plus	1,293	--	1,512	--	0	239	--	942	20	1,604	288
Liquefied Petroleum Gases	8,778	16,754	7,150	--	39,712	279	--	4,067	661	67,387	5,204
Ethane/Ethylene	3,041	0	1	--	0	0	--	0	0	3,041	0
Propane/Propylene	3,821	16,503	5,977	--	37,679	-43	--	0	363	63,660	3,650
Normal Butane/Butylene	1,426	793	1,088	--	1,850	342	--	2,727	298	1,568	1,444
Isobutane/Isobutylene	491	-542	106	--	383	-20	--	1,340	0	-882	110
Other Liquids	16,903	--	55,353	--	5,175	-2,794	--	84,515	37	-4,327	16,114
Other Hydrocarbons/Oxygenates ..	11,939	--	2,398	--	0	348	--	13,989	0	0	1,560
Unfinished Oils	--	--	45,612	--	3,523	-2,147	--	55,615	0	-4,333	8,937
Motor Gasoline Blend. Comp.	4,964	--	7,343	--	1,652	-1,037	--	14,959	37	0	5,575
Aviation Gasoline Blend. Comp.	--	--	0	--	0	42	--	-48	0	6	42
Finished Petroleum Products	-3,762	593,093	300,550	--	892,903	61	--	--	10,979	1,771,745	157,610
Finished Motor Gasoline	-3,762	285,612	84,432	--	543,191	4,891	--	--	1,532	903,050	59,378
Reformulated	--	0	0	--	0	NA	--	--	NA	NA	0
Oxygenated	12,027	84,793	421	--	68,595	NA	--	--	NA	NA	15,014
Other	-15,789	220,819	84,011	--	474,596	NA	--	--	NA	NA	44,364
Finished Aviation Gasoline	--	199	0	--	1,206	215	--	--	0	1,190	613
Jet Fuel	--	31,591	29,937	--	120,323	-700	--	--	334	182,217	8,922
Naphtha-Type	--	2,825	2,046	--	1,990	-16	--	--	18	6,859	271
Kerosene-Type	--	28,766	27,891	--	118,333	-684	--	--	316	175,358	8,651
Kerosene	--	1,195	239	--	6,680	-657	--	--	27	8,744	1,640
Distillate Fuel Oil	--	145,951	59,237	--	207,595	-2,541	--	--	1,684	413,640	62,539
0.05 percent sulfur and under ...	--	35,762	22,128	--	28,968	NA	--	--	NA	NA	19,928
Greater than 0.05 percent sulfur	--	110,189	37,109	--	178,627	NA	--	--	NA	NA	42,611
Residual Fuel Oil	--	44,424	110,481	--	3,084	-779	--	--	3,552	155,216	16,288
Petrochemical Feedstocks ^e	--	5,939	1,806	--	-528	54	--	--	0	7,163	275
Special Naphthas	--	485	188	--	877	-27	--	--	112	1,465	222
Lubricants	--	6,234	2,156	--	6,000	-649	--	--	1,405	13,634	2,695
Waxes	--	1,480	413	--	26	81	--	--	150	1,688	163
Petroleum Coke	--	17,987	0	--	0	-90	--	--	1,994	16,083	911
Asphalt and Road Oil	--	29,096	10,960	--	3,698	319	--	--	112	43,323	3,504
Still Gas	--	22,103	0	--	0	0	--	--	0	22,103	0
Miscellaneous Products	--	797	701	--	751	-56	--	--	76	2,229	460
Total	33,244	609,847	853,468	-3,677	938,069	-1,922	0	584,765	11,699	1,836,409	193,536

^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.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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. PAD District I—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 1993
(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	27	--	1,339	-10	1	1	0	1,357	(s)	0
Natural Gas Liquids and LRGs	28	46	24	--	109	1	--	14	2	189
Pentanes Plus	4	--	4	--	0	1	--	3	(s)	4
Liquefied Petroleum Gases	24	46	20	--	109	1	--	11	2	185
Ethane/Ethylene	8	0	(s)	--	0	0	--	0	0	8
Propane/Propylene	10	45	16	--	103	(s)	--	0	1	174
Normal Butane/Butylene	4	2	3	--	5	1	--	7	1	4
Isobutane/Isobutylene	1	-1	(s)	--	1	(s)	--	4	0	-2
Other Liquids	46	--	152	--	14	-6	--	232	(s)	-12
Other Hydrocarbons/Oxygenates	33	--	7	--	0	1	--	38	0	0
Unfinished Oils	--	--	125	--	10	-6	--	152	0	-12
Motor Gasoline Blend. Comp.	14	--	20	--	5	-3	--	41	(s)	0
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	-10	1,625	623	--	2,446	(s)	--	--	30	4,654
Finished Motor Gasoline	-10	782	231	--	1,488	13	--	--	4	2,474
Reformulated	--	0	0	--	0	NA	--	--	NA	NA
Oxygenated	33	178	1	--	188	NA	--	--	NA	NA
Other	-43	605	230	--	1,300	NA	--	--	NA	NA
Finished Aviation Gasoline	--	1	0	--	3	1	--	--	0	3
Jet Fuel	--	87	82	--	330	-2	--	--	1	499
Naphtha-Type	--	8	6	--	5	(s)	--	--	(s)	19
Kerosene-Type	--	79	76	--	324	-2	--	--	1	480
Kerosene	--	3	1	--	18	-2	--	--	(s)	24
Distillate Fuel Oil	--	400	182	--	569	-7	--	--	5	1,133
0.05 percent sulfur and under	--	98	61	--	79	NA	--	--	NA	NA
Greater than 0.05 percent sulfur ...	--	302	102	--	489	NA	--	--	NA	NA
Residual Fuel Oil	--	122	303	--	8	-2	--	--	10	425
Petrochemical Feedstocks ^e	--	16	5	--	-1	(s)	--	--	0	20
Special Naphthas	--	1	1	--	2	(s)	--	--	(s)	4
Lubricants	--	17	6	--	16	-2	--	--	4	37
Waxes	--	4	1	--	(s)	(s)	--	--	(s)	5
Petroleum Coke	--	49	0	--	0	(s)	--	--	5	44
Asphalt and Road Oil	--	80	30	--	10	1	--	--	(s)	119
Still Gas	--	61	0	--	0	0	--	--	0	61
Miscellaneous Products	--	2	2	--	2	(s)	--	--	(s)	6
Total	91	1,671	2,338	-10	2,570	-5	0	1,602	32	5,031

^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.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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 II—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, 1993
(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	230,928	--	242,949	-1,557	681,785	7,597	0	1,145,772	736	0	76,806
Natural Gas Liquids and LRGs	114,084	43,966	28,426	--	30,929	7,997	--	41,235	2,054	166,139	36,307
Pentanes Plus	16,718	--	503	--	9,568	672	--	11,346	211	14,560	3,970
Liquefied Petroleum Gases	97,376	43,966	27,923	--	21,361	7,325	--	29,889	1,853	151,579	32,337
Ethane/Ethylene	34,189	4	5,239	--	-10,565	-428	--	0	0	29,295	4,384
Propane/Propylene	41,346	38,437	17,162	--	23,612	7,414	--	0	1,169	111,974	19,045
Normal Butane/Butylene	13,622	4,623	3,421	--	2,077	658	--	13,322	684	9,279	6,432
Isobutane/isobutylene	6,219	722	2,101	--	6,237	-319	--	16,567	0	1,031	2,476
Other Liquids	-8,824	--	705	--	10,226	487	--	14,934	29	-13,343	22,411
Other Hydrocarbons/Oxygenates	4,278	--	0	--	0	582	--	3,696	0	0	1,025
Unfinished Oils	--	--	370	--	788	-157	--	14,669	0	-13,354	14,124
Motor Gasoline Blend. Comp.	-13,102	--	335	--	9,438	67	--	-3,425	29	0	7,262
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-5	--	-6	0	11	0
Finished Petroleum Products	31,383	1,212,693	5,647	--	262,696	3,211	--	--	6,712	1,502,496	107,797
Finished Motor Gasoline	31,383	630,808	908	--	172,557	1,866	--	--	565	833,226	48,170
Reformulated	--	0	0	--	0	NA	--	--	NA	NA	0
Oxygenated	182,810	50,433	0	--	-1,179	NA	--	--	NA	NA	1,113
Other	-151,427	580,375	908	--	173,736	NA	--	--	NA	NA	47,057
Finished Aviation Gasoline	--	964	32	--	956	35	--	--	0	1,917	433
Jet Fuel	--	75,010	831	--	28,044	-1,224	--	--	318	104,791	7,972
Naphtha-Type	--	5,809	792	--	1,617	-92	--	--	30	8,280	773
Kerosene-Type	--	69,201	39	--	26,427	-1,132	--	--	288	96,511	7,199
Kerosene	--	6,842	0	--	1,627	-510	--	--	53	8,926	1,072
Distillate Fuel Oil	--	279,543	2,244	--	58,606	3,063	--	--	790	336,540	34,360
0.05 percent sulfur and under	--	62,706	1,051	--	17,486	NA	--	--	NA	NA	21,879
Greater than 0.05 percent sulfur ...	--	216,837	1,193	--	41,120	NA	--	--	NA	NA	12,481
Residual Fuel Oil	--	27,040	257	--	-4,512	-10	--	--	347	22,448	2,979
Petrochemical Feedstocks ^e	--	15,225	215	--	558	-25	--	--	0	16,023	176
Special Naphthas	--	5,001	756	--	1,079	-84	--	--	214	6,706	351
Lubricants	--	8,352	161	--	2,272	-270	--	--	472	10,583	1,636
Waxes	--	854	70	--	0	9	--	--	57	858	134
Petroleum Coke	--	46,159	0	--	0	-1,210	--	--	2,428	44,941	1,509
Asphalt and Road Oil	--	63,669	100	--	953	1,497	--	--	1,468	61,757	8,733
Still Gas	--	49,612	0	--	0	0	--	--	0	49,612	0
Miscellaneous Products	--	3,614	73	--	556	74	--	--	1	4,168	272
Total	367,581	1,256,679	277,727	-1,557	965,636	19,292	0	1,201,941	9,541	1,655,292	243,321

^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.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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 II—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 1993
(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	633	--	666	-4	1,866	21	0	3,139	2	0
Natural Gas Liquids and LRGs	313	121	78	--	85	22	--	113	6	455
Pentanes Plus	46	--	1	--	26	2	--	31	1	40
Liquefied Petroleum Gases	267	121	77	--	59	20	--	82	5	415
Ethane/Ethylene	94	(s)	14	--	-29	-1	--	0	0	80
Propane/Propylene	113	105	47	--	65	20	--	0	3	307
Normal Butane/Butylene	37	13	9	--	6	2	--	36	2	25
Isobutane/isobutylene	23	2	6	--	17	-1	--	45	0	3
Other Liquids	-24	--	2	--	26	1	--	41	(s)	-37
Other Hydrocarbons/Oxygenates	12	--	0	--	0	2	--	10	0	0
Unfinished Oils	--	--	1	--	2	(s)	--	40	0	-37
Motor Gasoline Blend. Comp.	-36	--	1	--	26	(s)	--	-9	(s)	0
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	86	3,322	15	--	720	9	--	--	18	4,116
Finished Motor Gasoline	86	1,728	2	--	473	5	--	--	2	2,283
Reformulated	--	0	0	--	0	NA	--	--	NA	NA
Oxygenated	501	138	0	--	-3	NA	--	--	NA	NA
Other	-415	1,590	2	--	476	NA	--	--	NA	NA
Finished Aviation Gasoline	--	3	(s)	--	3	(s)	--	--	0	5
Jet Fuel	--	206	2	--	77	-3	--	--	1	287
Naphtha-Type	--	16	2	--	4	(s)	--	--	(s)	23
Kerosene-Type	--	190	(s)	--	72	-3	--	--	1	264
Kerosene	--	19	0	--	4	-1	--	--	(s)	24
Distillate Fuel Oil	--	766	6	--	161	8	--	--	2	922
0.05 percent sulfur and under	--	172	3	--	48	NA	--	--	NA	NA
Greater than 0.05 percent sulfur ...	--	594	3	--	113	NA	--	--	NA	NA
Residual Fuel Oil	--	74	1	--	-12	(s)	--	--	1	62
Petrochemical Feedstocks ^e	--	42	1	--	2	(s)	--	--	0	44
Special Naphthas	--	14	2	--	3	(s)	--	--	1	18
Lubricants	--	23	(s)	--	6	-1	--	--	1	29
Waxes	--	2	(s)	--	0	(s)	--	--	(s)	2
Petroleum Coke	--	126	0	--	0	-3	--	--	7	123
Asphalt and Road Oil	--	174	(s)	--	3	4	--	--	4	169
Still Gas	--	136	0	--	0	0	--	--	0	136
Miscellaneous Products	--	10	(s)	--	2	(s)	--	--	(s)	11
Total	1,007	3,443	781	-4	2,700	53	0	3,293	26	4,535

^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.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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 III—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, 1993
(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	1,178,567	--	1,612,135	47,307	-570,126	26,528	3	2,241,351	1	0	752,228
Natural Gas Liquids and LRGs	423,953	121,643	27,619	--	-41,851	10,159	--	93,889	8,970	418,366	70,292
Pentanes Plus	73,415	--	7,159	--	-5,846	548	--	31,004	293	42,883	6,074
Liquefied Petroleum Gases	350,538	121,643	20,460	--	-36,005	9,611	--	62,865	8,678	375,484	64,218
Ethane/Ethylene	153,523	10,100	46	--	21,950	1,936	--	0	0	183,683	15,670
Propane/Propylene	122,821	91,549	12,994	--	-53,796	4,826	--	3	6,580	162,159	26,950
Normal Butane/Butylene	21,801	16,532	5,429	--	75	3,394	--	27,258	2,097	11,088	14,808
Isobutane/isobutylene	52,393	3,462	1,991	--	-4,234	-545	--	35,604	0	18,553	6,790
Other Liquids	47,200	--	130,633	--	-17,124	-1,710	--	210,884	617	-49,282	63,192
Other Hydrocarbons/Oxygenates	31,431	--	262	--	0	3,473	--	28,220	0	0	6,013
Unfinished Oils	--	--	128,504	--	-4,985	-4,982	--	177,795	0	-49,294	41,449
Motor Gasoline Blend. Comp.	15,769	--	1,867	--	-12,139	-177	--	4,857	817	0	15,703
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-24	--	12	0	12	27
Finished Petroleum Products	-13,844	2,560,150	77,651	--	-1,199,282	-63	--	--	164,984	1,259,754	129,517
Finished Motor Gasoline	-13,844	1,208,397	1,363	--	-741,918	1,471	--	--	27,355	425,171	49,481
Reformulated	--	0	0	--	0	NA	--	--	NA	NA	0
Oxygenated	19,243	91,524	0	--	-67,515	NA	--	--	NA	NA	6,642
Other	-33,088	1,116,873	1,363	--	-674,403	NA	--	--	NA	NA	42,839
Finished Aviation Gasoline	--	4,399	0	--	-2,293	-17	--	--	0	2,123	323
Jet Fuel	--	254,082	2,445	--	-159,010	-1,449	--	--	9,304	89,642	13,838
Naphtha-Type	--	22,740	584	--	-3,713	-989	--	--	1,577	19,023	755
Kerosene-Type	--	231,322	1,861	--	-155,297	-460	--	--	7,727	70,619	13,083
Kerosene	--	7,795	47	--	-8,111	-507	--	--	1,187	-949	1,179
Distillate Fuel Oil	--	510,539	2,399	--	-272,646	-1,764	--	--	53,198	188,858	29,017
0.05 percent sulfur and under	--	142,762	2,399	--	-51,179	NA	--	--	NA	NA	12,181
Greater than 0.05 percent sulfur ...	--	367,777	0	--	-221,467	NA	--	--	NA	NA	16,836
Residual Fuel Oil	--	128,789	18,195	--	1,428	2,431	--	--	20,517	125,464	17,610
Petrochemical Feedstocks ^e	--	134,402	51,353	--	-30	-465	--	--	0	186,190	2,557
Special Naphthas	--	13,617	796	--	-1,956	504	--	--	689	11,264	1,894
Lubricants	--	36,119	148	--	-8,782	-246	--	--	3,559	24,172	5,835
Waxes	--	3,907	105	--	-26	4	--	--	333	3,649	449
Petroleum Coke	--	101,507	512	--	0	-384	--	--	48,734	53,669	2,191
Asphalt and Road Oil	--	41,879	220	--	-4,651	0	--	--	78	37,370	3,615
Still Gas	--	106,565	0	--	0	0	--	--	0	106,565	0
Miscellaneous Products	--	8,173	68	--	-1,287	359	--	--	30	6,565	1,528
Total	1,635,675	2,661,793	1,848,036	47,307	-1,828,383	34,914	3	2,546,104	174,771	1,626,836	1,015,229

^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.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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 III—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 1993
(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	3,229	--	4,417	130	-1,562	73	(s)	6,141	(s)	0
Natural Gas Liquids and LRGs	1,162	333	76	--	-115	28	--	257	25	1,146
Pentanes Plus	201	--	20	--	-16	2	--	85	1	117
Liquefied Petroleum Gases	960	333	56	--	-99	26	--	172	24	1,029
Ethane/Ethylene	421	28	(s)	--	60	5	--	0	0	503
Propane/Propylene	336	251	36	--	-147	13	--	(s)	18	444
Normal Butane/Butylene	60	45	15	--	(s)	9	--	75	6	30
Isobutane/isobutylene	144	9	5	--	-12	-1	--	98	0	51
Other Liquids	129	--	356	--	-47	-5	--	578	2	-135
Other Hydrocarbons/Oxygenates	86	--	1	--	0	10	--	77	0	0
Unfinished Oils	--	--	352	--	-14	-14	--	487	0	-135
Motor Gasoline Blend. Comp.	43	--	5	--	-33	(s)	--	13	2	0
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	-38	7,014	213	--	-3,286	(s)	--	--	452	3,451
Finished Motor Gasoline	-38	3,311	4	--	-2,033	4	--	--	75	1,165
Reformulated	--	0	0	--	0	NA	--	--	NA	NA
Oxygenated	53	251	0	--	-185	NA	--	--	NA	NA
Other	-91	3,060	4	--	-1,848	NA	--	--	NA	NA
Finished Aviation Gasoline	--	12	0	--	-6	(s)	--	--	0	6
Jet Fuel	--	696	7	--	-436	-4	--	--	25	246
Naphtha-Type	--	62	2	--	-10	-3	--	--	4	52
Kerosene-Type	--	634	5	--	-425	-1	--	--	21	193
Kerosene	--	21	(s)	--	-22	-1	--	--	3	-3
Distillate Fuel Oil	--	1,399	7	--	-747	-5	--	--	146	517
0.05 percent sulfur and under	--	391	7	--	-140	NA	--	--	NA	NA
Greater than 0.05 percent sulfur ..	--	1,008	0	--	-607	NA	--	--	NA	NA
Residual Fuel Oil	--	353	50	--	4	7	--	--	56	344
Petrochemical Feedstocks ^e	--	368	141	--	(s)	-1	--	--	0	510
Special Naphthas	--	37	2	--	-5	1	--	--	2	31
Lubricants	--	99	(s)	--	-24	-1	--	--	10	66
Waxes	--	11	(s)	--	(s)	(s)	--	--	1	10
Petroleum Coke	--	278	1	--	0	-1	--	--	134	147
Asphalt and Road Oil	--	115	1	--	-13	0	--	--	(s)	102
Still Gas	--	292	0	--	0	0	--	--	0	292
Miscellaneous Products	--	22	(s)	--	-4	1	--	--	(s)	18
Total	4,482	7,347	5,063	130	-5,009	96	(s)	6,976	479	4,463

^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.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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 IV—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, 1993
(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	156,331	--	32,971	13,670	-40,191	-271	0	163,252	0	0	11,136
Natural Gas Liquids and LRGs	46,464	2,563	5,130	--	-28,790	81	--	6,328	100	20,858	1,369
Pentanes Plus	11,451	--	2,668	--	-3,722	31	--	2,012	19	8,335	183
Liquefied Petroleum Gases	37,013	2,563	2,482	--	-25,068	50	--	4,316	80	12,524	1,178
Ethane/Ethylene	12,011	0	0	--	-11,385	-2	--	0	0	628	178
Propane/Propylene	15,626	2,877	1,469	--	-7,495	-11	--	0	2	12,488	480
Normal Butane/Butylene	5,689	-153	845	--	-3,802	26	--	3,015	78	-540	311
Isobutane/Isobutylene	3,687	-161	148	--	-2,386	37	--	1,301	0	-50	209
Other Liquids	1,462	--	0	--	0	689	--	214	0	559	5,064
Other Hydrocarbons/Oxygenates	1,209	--	0	--	0	143	--	1,066	0	0	245
Unfinished Oils	--	--	0	--	0	328	--	-887	0	559	2,727
Motor Gasoline Blend. Comp.	253	--	0	--	0	218	--	35	0	0	2,082
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	228	172,876	1,310	--	11,809	-393	--	--	117	196,499	10,428
Finished Motor Gasoline	228	84,465	120	--	5,551	-56	--	--	3	90,417	4,532
Reformulated	--	0	0	--	0	NA	--	--	NA	NA	0
Oxygenated	4,811	4,107	0	--	99	NA	--	--	NA	NA	655
Other	-4,583	80,358	120	--	5,452	NA	--	--	NA	NA	3,677
Finished Aviation Gasoline	--	272	0	--	131	2	--	--	0	401	47
Jet Fuel	--	12,231	0	--	5,860	-122	--	--	0	18,213	713
Naphtha-Type	--	3,775	0	--	-1,812	-46	--	--	0	2,009	251
Kerosene-Type	--	8,456	0	--	7,672	-76	--	--	0	16,204	462
Kerosene	--	607	0	--	-196	-39	--	--	0	450	60
Distillate Fuel Oil	--	45,189	1,138	--	463	162	--	--	12	46,616	2,794
0.05 percent sulfur and under	--	12,460	475	--	3,329	NA	--	--	NA	NA	1,731
Greater than 0.05 percent sulfur ...	--	32,729	663	--	-2,666	NA	--	--	NA	NA	1,063
Residual Fuel Oil	--	3,857	18	--	0	45	--	--	0	3,830	402
Petrochemical Feedstocks ^e	--	255	0	--	0	0	--	--	0	255	2
Special Naphthas	--	0	0	--	0	0	--	--	3	-3	1
Lubricants	--	0	0	--	0	0	--	--	49	-49	0
Waxes	--	361	34	--	0	-14	--	--	1	408	30
Petroleum Coke	--	5,079	0	--	0	24	--	--	39	5,016	257
Asphalt and Road Oil	--	12,225	0	--	0	-415	--	--	9	12,631	1,566
Still Gas	--	7,428	0	--	0	0	--	--	0	7,428	0
Miscellaneous Products	--	907	0	--	0	20	--	--	(s)	887	24
Total	206,486	175,439	39,411	13,670	-57,172	108	0	169,794	217	207,917	27,977

^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.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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 IV—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 1993
(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	428	—	90	38	-110	-1	0	447	0	0
Natural Gas Liquids and LRGs	133	7	14	—	-79	(s)	—	17	(s)	57
Pentanes Plus	31	—	7	—	-10	(s)	—	6	(s)	23
Liquefied Petroleum Gases	101	7	7	—	-69	(s)	—	12	(s)	34
Ethane/Ethylene	33	0	0	—	-31	(s)	—	0	0	2
Propane/Propylene	43	8	4	—	-21	(s)	—	0	(s)	34
Normal Butane/Butylene	16	(s)	2	—	-10	(s)	—	8	(s)	-1
Isobutane/Isobutylene	10	(s)	(s)	—	-7	(s)	—	4	0	(s)
Other Liquids	4	—	0	—	0	2	—	1	0	2
Other Hydrocarbons/Oxygenates	3	—	0	—	0	(s)	—	3	0	0
Unfinished Oils	—	—	0	—	0	1	—	-2	0	2
Motor Gasoline Blend. Comp.	1	—	0	—	0	1	—	(s)	0	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	0	—	0	0	0
Finished Petroleum Products	1	474	4	—	32	-1	—	—	(s)	511
Finished Motor Gasoline	1	231	(s)	—	15	(s)	—	—	(s)	248
Reformulated	—	0	0	—	0	NA	—	—	NA	NA
Oxygenated	13	11	0	—	(s)	NA	—	—	NA	NA
Other	-13	220	(s)	—	15	NA	—	—	NA	NA
Finished Aviation Gasoline	—	1	0	—	(s)	(s)	—	—	0	1
Jet Fuel	—	34	0	—	16	(s)	—	—	0	50
Naphtha-Type	—	10	0	—	-5	(s)	—	—	0	6
Kerosene-Type	—	23	0	—	21	(s)	—	—	0	44
Kerosene	—	2	0	—	-1	(s)	—	—	0	1
Distillate Fuel Oil	—	124	3	—	1	(s)	—	—	(s)	128
0.05 percent sulfur and under	—	34	1	—	9	NA	—	—	NA	NA
Greater than 0.05 percent sulfur ...	—	90	2	—	-8	NA	—	—	NA	NA
Residual Fuel Oil	—	11	(s)	—	0	(s)	—	—	0	10
Petrochemical Feedstocks ^e	—	1	0	—	0	0	—	—	0	1
Special Naphthas	—	0	0	—	0	0	—	—	(s)	(s)
Lubricants	—	0	0	—	0	0	—	—	(s)	(s)
Waxes	—	1	(s)	—	0	(s)	—	—	(s)	1
Petroleum Coke	—	14	0	—	0	(s)	—	—	(s)	14
Asphalt and Road Oil	—	33	0	—	0	-1	—	—	(s)	35
Still Gas	—	20	0	—	0	0	—	—	0	20
Miscellaneous Products	—	2	0	—	0	(s)	—	—	(s)	2
Total	566	481	108	38	-157	(s)	0	465	1	570

^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.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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 V—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, 1993
(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	923,175	--	100,272	5,527	-71,747	-4,546	6	923,025	35,095	3,647	67,975
Natural Gas Liquids and LRGs	36,936	30,961	232	--	0	484	--	32,772	4,369	30,484	3,615
Pentanes Plus	18,975	--	0	--	0	-14	--	14,448	(s)	4,541	66
Liquefied Petroleum Gases	17,961	30,961	232	--	0	498	--	18,324	4,369	25,943	3,549
Ethane/Ethylene	19	0	0	--	0	0	--	0	0	19	0
Propane/Propylene	3,552	14,958	112	--	0	135	--	26	1,534	16,927	1,080
Normal Butane/Butylene	9,123	14,931	37	--	0	60	--	11,230	2,854	9,947	1,817
Isobutane/isobutylene	5,267	1,072	83	--	0	303	--	7,068	0	-949	652
Other Liquids	15,400	--	10,150	--	1,723	2,964	--	24,137	1,734	-1,562	33,806
Other Hydrocarbons/Oxygenates	19,537	--	4,896	--	0	1,251	--	23,182	0	0	3,830
Unfinished Oils	--	--	4,815	--	674	88	--	6,963	0	-1,562	21,183
Motor Gasoline Blend. Comp.	-4,137	--	439	--	1,049	1,619	--	-8,002	1,734	0	8,784
Aviation Gasoline Blend. Comp.	--	--	0	--	0	6	--	-6	0	0	9
Finished Petroleum Products	6,302	1,007,532	17,156	--	31,874	3,953	--	--	126,529	630,382	61,760
Finished Motor Gasoline	6,302	456,698	3,419	--	20,619	1,314	--	--	8,737	476,986	25,490
Reformulated	--	0	0	--	0	NA	--	--	NA	NA	0
Oxygenated	21,649	118,356	0	--	0	NA	--	--	NA	NA	10,124
Other	-15,347	338,342	3,419	--	20,619	NA	--	--	NA	NA	15,366
Finished Aviation Gasoline	--	1,948	46	--	0	19	--	--	0	1,975	395
Jet Fuel	--	145,957	3,270	--	4,783	820	--	--	11,745	141,445	8,947
Naphtha-Type	--	5,841	268	--	1,918	-934	--	--	4,291	4,670	298
Kerosene-Type	--	140,116	3,002	--	2,965	1,754	--	--	7,454	136,775	8,649
Kerosene	--	999	21	--	0	55	--	--	22	943	118
Distillate Fuel Oil	--	161,853	2,166	--	5,962	1,340	--	--	44,272	124,389	12,157
0.05 percent sulfur and under	--	74,144	1,004	--	1,396	NA	--	--	NA	NA	7,971
Greater than 0.05 percent sulfur ...	--	87,709	1,162	--	4,566	NA	--	--	NA	NA	4,186
Residual Fuel Oil	--	100,670	7,200	--	0	-82	--	--	20,647	87,305	6,915
Petrochemical Feedstocks	--	1,913	255	--	0	88	--	--	0	2,080	230
Special Naphthas	--	724	50	--	0	-13	--	--	291	496	48
Lubricants	--	7,580	31	--	510	-322	--	--	1,297	7,146	1,696
Waxes	--	726	24	--	0	-47	--	--	171	626	78
Petroleum Coke	--	55,284	177	--	0	546	--	--	41,142	13,773	3,643
Asphalt and Road Oil	--	17,845	491	--	0	75	--	--	193	18,068	1,774
Still Gas	--	52,657	0	--	0	0	--	--	0	52,657	0
Miscellaneous Products	--	2,678	6	--	-20	160	--	--	12	2,492	269
Total	961,613	1,038,483	127,610	5,527	-36,180	2,855	6	979,934	169,747	962,961	167,156

^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.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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 V — Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 1993
(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	2,829	--	275	15	-187	-12	(a)	2,829	95	10
Natural Gas Liquids and LRGs	101	85	1	--	0	1	--	90	12	84
Pentanes Plus	52	--	0	--	0	(a)	--	40	(a)	12
Liquefied Petroleum Gases	49	85	1	--	0	1	--	50	12	71
Ethane/Ethylene	(a)	0	0	--	0	0	--	0	0	(a)
Propane/Propylene	10	41	(a)	--	0	(a)	--	(a)	4	46
Normal Butane/Butylene	25	41	(a)	--	0	(a)	--	31	8	27
Isobutane/Isobutylene	14	3	(a)	--	0	1	--	19	0	-3
Other Liquids	42	--	28	--	5	8	--	66	5	-4
Other Hydrocarbons/Oxygenates	54	--	13	--	0	3	--	64	0	0
Unfinished Oils	--	--	13	--	2	(a)	--	19	0	-4
Motor Gasoline Blend. Comp.	-11	--	1	--	3	4	--	-15	5	0
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(a)	--	(a)	0	0
Finished Petroleum Products	17	2,760	47	--	87	11	--	--	362	2,549
Finished Motor Gasoline	17	1,251	9	--	56	4	--	--	24	1,307
Reformulated	--	0	0	--	0	NA	--	--	NA	NA
Oxygenated	59	324	0	--	0	NA	--	--	NA	NA
Other	-42	927	9	--	56	NA	--	--	NA	NA
Finished Aviation Gasoline	--	5	(a)	--	0	(a)	--	--	0	5
Jet Fuel	--	400	9	--	13	2	--	--	32	388
Naphtha-Type	--	16	1	--	5	-3	--	--	12	13
Kerosene-Type	--	384	8	--	8	5	--	--	20	375
Kerosene	--	3	(a)	--	0	(a)	--	--	(a)	3
Distillate Fuel Oil	--	443	6	--	16	4	--	--	121	341
0.05 percent sulfur and under	--	203	3	--	4	NA	--	--	NA	NA
Greater than 0.05 percent sulfur ...	--	240	3	--	13	NA	--	--	NA	NA
Residual Fuel Oil	--	276	20	--	0	(a)	--	--	57	239
Petrochemical Feedstocks ^e	--	5	1	--	0	(a)	--	--	0	6
Special Naphthas	--	2	(a)	--	0	(a)	--	--	1	1
Lubricants	--	21	(a)	--	1	-1	--	--	4	20
Waxes	--	2	(a)	--	0	(a)	--	--	(a)	2
Petroleum Coke	--	151	(a)	--	0	1	--	--	113	38
Asphalt and Road Oil	--	49	1	--	0	(a)	--	--	1	50
Still Gas	--	144	0	--	0	0	--	--	0	144
Miscellaneous Products	--	7	(a)	--	(a)	(a)	--	--	(a)	7
Total	2,890	2,845	350	15	-105	8	(a)	2,885	465	2,638

^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 naphthas less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(a) = Less than 500 barrels per day.

LRG = Liquefied Refinery Gas.

NA = Not available.

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 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. Production of Crude Oil by PAD District and State, 1993
(Thousand Barrels)

PAD District and State	Total	Daily Average
PAD District I	10,032	27
Florida	5,604	15
New York	331	1
Pennsylvania	2,036	6
Virginia	12	(s)
West Virginia	2,048	6
PAD District II	230,928	633
Illinois	17,406	48
Indiana	2,761	8
Kansas	49,625	136
Kentucky	4,593	13
Michigan	13,799	38
Missouri	135	(s)
Nebraska	4,868	13
North Dakota	30,917	85
Ohio	8,282	23
Oklahoma	96,624	265
South Dakota	1,500	4
Tennessee	419	1
PAD District III	1,178,567	3,229
Alabama	18,677	51
Arkansas	9,974	27
Louisiana ^b	138,673	380
Mississippi	22,615	62
New Mexico	68,422	187
Texas ^b	619,088	1,696
Federal Offshore PAD District III	301,117	825
PAD District IV	156,331	428
Colorado	29,398	81
Montana	17,448	48
Utah	21,819	60
Wyoming	87,667	240
PAD District V	923,175	2,529
Alaska ^b	577,494	1,582
South Alaska	13,848	38
North Slope	563,846	1,544
Arizona	73	(s)
California ^b	293,089	803
Nevada	1,880	5
Federal Offshore PAD District V	50,639	139
U.S. Total^b	2,499,033	6,847

^a Includes the following offshore production (thousand barrels): Alaska: State - 58,735; California: State - 20,900; Louisiana: State - 23,081; Texas: State - 1,935; U.S. Total, including Federal offshore - 456,408.

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

Note: Crude oil production data for Indiana, and New Mexico, are unchanged from those reported in the *Petroleum Supply Monthly* during 1993. • Annual crude oil production data for Pennsylvania were estimated based on first purchaser monthly crude oil volumes collected on Form EIA-182, "Domestic Crude Oil First Purchase Report." • A final revision to the State data for 1993 will appear in the 1994 *Petroleum Supply Annual*. • 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 and Gas Producers.

Revised 1992 crude oil production statistics are available in Appendix C.

Table 15. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, 1993
(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	2,372	7,699	10,071	6,560	4,545	102,999	114,094
Pentanes Plus	388	905	1,293	1,238	1,195	14,285	16,718
Liquefied Petroleum Gases	1,984	6,794	8,778	5,342	3,350	88,684	97,376
Ethane	662	2,378	3,040	793	10	33,386	34,189
Propane	773	3,048	3,821	2,686	2,060	36,600	41,346
Normal Butane	473	953	1,426	996	1,278	11,348	13,622
Isobutane	76	415	491	857	2	7,350	8,219
Stocks							
Natural Gas Liquids	22	36	58	111	57	3,105	3,273
Pentanes Plus	1	6	7	22	28	393	443
Liquefied Petroleum Gases	21	30	51	89	29	2,712	2,830
Ethane	0	0	0	11	0	739	750
Propane	18	25	43	39	18	1,245	1,302
Normal Butane	3	2	5	23	11	542	576
Isobutane	0	3	3	16	0	166	202

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	226,814	43,631	87,201	7,679	58,628	423,953	48,464	36,936	633,518
Pentanes Plus	40,201	8,286	15,200	2,206	7,522	73,415	11,451	18,975	121,852
Liquefied Petroleum Gases	186,613	35,345	72,001	5,473	51,106	350,538	37,013	17,961	511,666
Ethane	77,763	18,501	31,791	1,124	24,344	153,523	12,011	19	202,782
Propane	68,446	10,612	24,322	2,294	17,147	122,821	15,626	3,552	187,166
Normal Butane	28,535	-21,399	6,922	1,486	6,257	21,801	5,689	9,123	51,661
Isobutane	11,869	27,631	8,966	569	3,358	52,393	3,667	5,267	70,057
Stocks									
Natural Gas Liquids	335	1,260	1,313	162	130	3,220	243	135	6,929
Pentanes Plus	130	254	236	8	25	653	98	11	1,212
Liquefied Petroleum Gases	205	1,026	1,077	154	105	2,567	145	124	5,717
Ethane	19	363	32	97	0	511	2	0	1,263
Propane	129	300	598	42	82	1,151	65	61	2,642
Normal Butane	41	222	303	10	14	590	38	7	1,216
Isobutane	16	141	144	5	9	315	20	56	596

Note: • Stocks are reported as of the end of December. • Refer to Appendix A for Refining District descriptions.
Source: Energy Information Administration (EIA) Form EIA-816, "Monthly Natural Gas Liquids Report."

Table 16. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, 1993
(Thousand Barrels, Except Where Noted)

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	460,697	34,544	495,241	775,922	130,101	239,749	1,145,772
Natural Gas Liquids	5,009	0	5,009	24,381	3,867	12,997	41,235
Pentanes Plus	942	0	942	3,902	701	6,743	11,346
Liquefied Petroleum Gases	4,067	0	4,067	20,449	3,166	6,254	29,869
Ethane	0	0	0	0	0	0	0
Propane	0	0	0	0	0	0	0
Normal Butane	2,727	0	2,727	8,722	1,971	2,629	13,322
Isobutane	1,340	0	1,340	11,727	1,215	3,625	16,567
Other Liquids	83,548	987	84,535	21,096	783	-8,925	14,934
Other Hydrocarbons/Hydrogen/Oxygenates	13,958	31	13,989	1,701	1,186	809	3,696
Other Hydrocarbons/Hydrogen	372	31	403	305	0	0	305
Oxygenates	W	W	13,586	1,396	1,186	809	3,391
Fuel Ethanol	W	W	W	W	W	W	2,131
Methanol	W	W	W	W	W	W	W
MTBE	W	W	13,448	W	W	W	W
Other Oxygenates ^a	W	W	W	W	W	W	W
Unfinished Oils (net)	54,545	1,070	55,615	24,197	-116	-9,412	14,669
Motor Gasoline Blend. Comp. (net)	15,093	-134	14,959	-4,796	-307	1,678	-3,425
Aviation Gasoline Blend. Comp. (net)	-48	0	-48	-6	0	0	-6
Total Input to Refineries	549,254	35,511	584,765	821,399	134,751	245,821	1,201,941
Atmospheric Crude Oil Distillation							
Gross Input (daily average)	1,261	95	1,356	2,193	355	665	3,214
Operable Capacity (daily average)	1,443	98	1,541	2,318	365	699	3,381
Operable Utilization Rate (percent) ^b	87.4	96.8	88.0	94.6	97.4	95.1	95.0
Downstream Processing							
Fresh Feed Input (daily average)							
Catalytic Cracking	582	19	602	600	121	189	1,110
Catalytic Hydrocracking	48	4	52	115	0	6	121
Delayed and Fluid Coking	79	0	79	156	59	60	275
Crude Oil Qualities							
Sulfur Content, Weighted Average (percent)	1.00	0.81	0.99	1.10	1.82	0.69	1.10
API Gravity, Weighted Average (degrees)	30.95	36.80	31.36	33.56	30.53	36.08	33.74
Operable Capacity (daily average)	1,443	98	1,541	2,318	365	699	3,381
Operating	1,398	98	1,496	2,301	365	677	3,342
Idle	45	0	45	16	0	22	39
Alaskan Crude Oil Receipts	0	0	0	7,686	0	26	7,912

See footnotes at end of table.

Table 16. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, 1993 (Continued)
(Thousand Barrels, Except Where Noted)

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	190,466	1,060,480	887,048	71,281	32,136	2,241,361	163,262	923,025	4,968,641
Natural Gas Liquids	13,041	43,923	31,239	2,908	2,760	93,869	6,328	32,772	179,213
Pentanes Plus	6,240	16,753	4,723	1,731	1,557	31,004	2,012	14,448	59,752
Liquefied Petroleum Gases	6,801	27,170	26,516	1,175	1,203	62,665	4,316	18,324	119,461
Ethane	0	0	0	0	0	0	0	0	0
Propane	0	3	0	0	0	3	0	26	29
Normal Butane	5,213	8,457	13,325	227	36	27,258	3,015	11,230	57,552
Isobutane	1,588	18,710	13,191	948	1,167	35,604	1,301	7,068	61,680
Other Liquids	-866	162,907	46,184	1,643	546	210,664	214	24,137	334,664
Other Hydrocarbons/Hydrogen/Oxygenates	1,847	15,421	10,716	39	197	26,220	1,066	23,182	70,153
Other Hydrocarbons/Hydrogen	1,340	1,779	5,065	0	0	8,184	0	6,651	15,543
Oxygenates	507	13,642	5,651	W	W	20,036	1,066	16,531	54,610
Fuel Ethanol	W	W	W	W	W	W	W	W	3,351
Methanol	W	W	W	W	W	W	W	W	782
MTBE	W	12,803	W	W	W	18,046	W	16,265	49,393
Other Oxygenates ^a	W	W	W	W	W	W	W	W	1,084
Unfinished Oils (net)	-1,458	139,499	37,547	2,334	-127	177,795	-867	6,963	254,155
Motor Gasoline Blend. Comp. (net)	-965	7,999	-2,103	-530	476	4,857	35	-6,002	10,424
Aviation Gasoline Blend. Comp. (net)	0	-12	24	0	0	12	0	-6	-48
Total Input to Refineries	202,911	1,267,280	964,471	76,000	35,442	2,546,104	166,794	979,834	5,482,536
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	526	2,961	2,481	195	88	6,251	453	2,578	13,851
Operable Capacity (daily average)	557	3,223	2,663	249	97	6,789	518	2,914	15,143
Operable Utilization Rate (percent) ^b	94.4	91.9	93.2	78.4	90.4	92.1	87.4	88.5	91.5
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	172	1,261	870	27	29	2,360	148	706	4,926
Catalytic Hydrocracking	22	213	199	0	0	434	8	450	1,064
Delayed and Fluid Coking	5	288	347	13	0	653	34	474	1,514
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.91	1.14	1.32	1.44	1.03	1.20	1.16	1.16	1.15
API Gravity, Weighted Average (degrees)	38.47	32.13	31.05	32.33	37.41	32.32	34.51	25.39	31.30
Operable Capacity (daily average)	557	3,223	2,663	249	97	6,789	518	2,914	15,143
Operating	557	3,196	2,662	244	97	6,756	507	2,860	14,961
Idle	0	27	1	5	0	33	11	54	182
Alaskan Crude Oil Receipts	235	6,257	5,066	327	0	11,907	0	506,890	528,709

^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 capacity.

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 17. Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts, 1993
(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	16,579	175	16,754	32,126	3,671	7,969	43,986
Ethane/Ethylene	0	0	0	0	0	4	4
Ethane	W	W	W	W	W	W	W
Ethylene	W	W	W	W	W	W	W
Propane/Propylene	16,145	358	16,503	27,828	3,218	7,391	38,437
Propane	W	W	W	W	W	W	W
Propylene	W	W	W	W	W	W	W
Normal Butane/Butylene	903	-110	793	3,258	602	963	4,823
Normal Butane	W	W	W	W	W	W	W
Butylene	W	W	W	W	W	W	W
Isobutane/isobutylene	-469	-73	-542	1,040	51	-369	722
Isobutane	W	W	W	W	W	W	W
Isobutylene	W	W	W	W	W	W	W
Finished Motor Gasoline	271,977	13,635	285,612	432,903	71,268	126,637	630,808
Reformulated	0	0	0	0	0	0	0
Oxygenated	64,793	0	64,793	14,433	12,814	23,186	50,433
Other	207,184	13,635	220,819	418,470	58,454	103,451	580,375
Finished Aviation Gasoline	199	0	199	521	328	115	964
Jet Fuel	31,591	0	31,591	50,192	8,354	16,464	75,010
Naphtha-Type	2,825	0	2,825	2,849	180	2,780	5,809
Kerosene-Type	28,766	0	28,766	47,343	8,174	13,684	69,201
Commercial	26,431	0	26,431	45,152	8,174	13,666	66,992
Military	2,335	0	2,335	2,191	0	18	2,209
Kerosene	472	723	1,195	5,318	955	569	6,842
Distillate Fuel Oil	136,348	9,603	145,951	179,832	34,062	65,649	279,543
0.05 percent sulfur and under	32,277	3,485	35,762	45,605	4,172	12,929	62,706
Greater than 0.05 percent sulfur	104,071	6,118	110,189	134,227	29,890	52,720	216,837
Residual Fuel Oil	43,455	989	44,424	22,051	2,939	2,050	27,040
Less than 0.31 percent sulfur	5,168	361	5,529	0	0	320	320
0.31 to 1.00 percent sulfur	34,714	608	35,322	3,919	0	468	4,387
Greater than 1.00 percent sulfur	3,573	0	3,573	18,132	2,939	1,262	22,333
Naphtha for Petrochemical Feedstock Use	5,807	0	5,807	7,106	0	192	7,298
Other Oils for Petrochemical Feedstock Use	132	0	132	7,232	0	695	7,927
Special Naphthas	138	347	485	3,823	0	1,178	5,001
Lubricants	3,025	3,209	6,234	5,573	0	2,779	8,352
Naphthenic	0	0	0	0	0	0	0
Paraffinic	3,025	3,209	6,234	5,573	0	2,779	8,352
Waxes	0	1,480	1,480	528	0	326	854
Petroleum Coke	17,696	291	17,987	30,030	7,343	8,786	46,159
Marketable	6,690	0	6,690	16,485	5,427	6,075	27,987
Catalyst	11,006	291	11,297	13,545	1,916	2,711	18,172
Asphalt and Road Oil	25,823	3,273	29,096	46,316	7,780	9,573	63,669
Still Gas	20,450	1,653	22,103	34,146	4,442	11,024	49,612
Miscellaneous Products	304	493	797	2,446	578	590	3,614
Fuel Use	0	0	0	0	0	0	0
Nonfuel Use	304	493	797	2,446	578	590	3,614
Total	573,996	35,651	609,647	860,143	141,920	254,616	1,256,679
Processing Gain(-) or Loss(+) ^a	-24,742	-340	-25,082	-38,774	-7,169	-8,795	-54,738

See footnotes at end of table.

Table 17. Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts, 1993 (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	
Liquefied Refinery Gases	8,141	74,418	36,698	1,466	920	121,643	2,563	30,961	216,907
Ethane/Ethylene	50	6,820	3,231	-1	0	10,100	0	0	10,104
Ethane	W	W	W	W	W	W	W	W	7,512
Ethylene	W	W	W	W	W	W	W	W	2,592
Propane/Propylene	6,954	52,785	30,148	967	715	91,549	2,877	14,958	164,324
Propane	W	W	W	W	W	W	W	W	117,132
Propylene	W	W	W	W	W	W	W	W	47,192
Normal Butane/Butylene	696	13,471	1,853	379	133	16,532	-153	14,931	36,926
Normal Butane	W	W	W	W	W	W	W	W	36,429
Butylene	W	W	W	W	W	W	W	W	497
Isobutane/isobutylene	441	1,362	1,466	121	72	3,462	-161	1,072	4,553
Isobutane	W	W	W	W	W	W	W	W	3,806
Isobutylene	W	W	W	W	W	W	W	W	745
Finished Motor Gasoline	107,860	606,049	451,076	21,442	19,970	1,208,397	84,465	456,698	2,665,980
Reformulated	0	0	0	0	0	0	0	0	0
Oxygenated	4,871	54,261	30,766	27	1,699	91,524	4,107	118,356	329,213
Other	102,989	553,788	420,310	21,415	18,371	1,116,873	80,358	338,342	2,336,767
Finished Aviation Gasoline	1,668	1,685	1,146	0	0	4,399	272	1,948	7,782
Jet Fuel	19,150	115,408	111,896	4,371	3,237	284,062	12,231	145,957	518,851
Naphtha-Type	4,069	4,516	8,991	2,787	2,377	22,740	3,775	5,841	40,990
Kerosene-Type	15,061	110,892	102,905	1,584	860	231,322	8,456	140,116	477,861
Commercial	13,409	101,734	99,438	1,584	107	216,272	8,456	124,252	442,403
Military	1,672	9,158	3,467	0	753	15,060	0	15,864	35,458
Kerosene	239	4,916	2,530	68	42	7,795	607	999	17,438
Distillate Fuel Oil	46,145	230,168	205,645	20,042	8,539	510,539	45,189	161,853	1,143,075
0.05 percent sulfur and under	11,289	77,575	47,718	3,290	2,690	142,762	12,480	74,144	327,834
Greater than 0.05 percent sulfur	34,856	152,593	157,927	16,752	5,849	367,777	32,729	87,709	815,241
Residual Fuel Oil	4,390	68,755	51,746	3,665	233	128,769	3,857	100,670	304,780
Less than 0.31 percent sulfur	1,469	55	7,165	747	19	9,455	1,310	10,939	27,553
0.31 to 1.00 percent sulfur	1,443	17,429	6,164	2,323	214	27,573	622	11,223	79,127
Greater than 1.00 percent sulfur	1,478	51,271	38,417	595	0	91,761	1,925	78,506	196,100
Naphtha for Petrochemical Feedstock Use	1,168	35,580	5,171	0	0	41,919	0	-1,335	53,699
Other Oils for Petrochemical Feedstock Use	1,739	56,968	33,776	0	0	92,483	255	3,248	104,045
Special Naphthas	1,045	8,428	2,561	1,583	0	13,617	0	724	19,827
Lubricants	W	20,378	W	W	W	36,119	0	7,580	58,285
Naphthenic	W	3,944	W	W	W	9,570	0	3,260	12,830
Paraffinic	W	16,430	W	W	W	26,549	0	4,320	45,455
Waxes	102	2,030	1,007	768	0	3,907	361	726	7,328
Petroleum Coke	3,831	48,782	46,954	1,729	241	101,507	5,079	55,284	226,016
Marketable	443	27,335	33,967	1,221	0	62,966	3,030	42,467	143,140
Catalyst	3,368	21,417	12,987	508	241	38,541	2,049	12,817	82,876
Asphalt and Road Oil	5,333	9,725	12,411	12,695	1,715	41,879	12,225	17,845	164,714
Still Gas	7,650	57,284	37,997	2,517	917	106,565	7,428	52,657	236,365
Miscellaneous Products	600	3,563	4,010	0	0	8,173	907	2,678	16,169
Fuel Use	178	0	1,101	0	0	1,279	0	0	1,279
Nonfuel Use	422	3,563	2,909	0	0	6,894	907	2,678	14,890
Total	206,596	1,346,107	1,013,272	77,004	35,814	2,661,793	175,439	1,036,493	5,762,281
Processing Gain(-) or Loss(+) ^a	-6,685	-78,827	-48,801	-1,004	-372	-135,669	-5,645	-58,559	-279,713

^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 18. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, 1993
(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	12,796	886	13,684	10,014	2,020	2,162	14,196
Petroleum Products	54,388	2,470	56,858	37,679	7,261	13,644	58,684
Pentanes Plus	270	0	270	284	65	369	708
Liquefied Petroleum Gases	1,626	11	1,637	2,461	269	1,045	3,775
Ethane/Ethylene	0	0	0	1	0	2	3
Propane/Propylene	539	3	542	1,269	23	571	1,863
Normal Butane/Butylene	985	3	988	896	166	323	1,387
Isobutane/isobutylene	102	5	107	293	80	149	522
Other Hydrocarbons/Hydrogen/Oxygenates	1,143	9	1,152	228	67	29	324
Other Hydrocarbons/Hydrogen	0	5	5	27	0	0	27
Oxygenates	W	W	1,147	201	67	29	297
Fuel Ethanol	W	W	W	W	W	W	118
Methanol	W	W	W	W	W	W	W
MTBE	W	W	1,053	W	W	W	W
Other Oxygenates ^a	W	W	W	W	W	W	W
Unfinished Oils	8,410	527	8,937	9,561	433	4,130	14,124
Naphthas and Lighter	1,919	129	2,048	2,656	144	753	3,553
Kerosene and Light Gas Oils	1,932	17	1,949	1,449	58	415	1,922
Heavy Gas Oils	3,731	309	4,040	3,281	228	1,690	5,199
Residuum	828	72	900	2,175	3	1,272	3,450
Motor Gasoline Blending Components	5,257	100	5,357	4,500	874	1,181	6,555
Aviation Gasoline Blending Components	42	0	42	0	0	0	0
Finished Motor Gasoline	14,809	284	15,093	6,377	1,755	2,803	10,935
Reformulated	0	0	0	0	0	0	0
Oxygenated	3,283	0	3,283	346	196	155	697
Other	11,526	284	11,810	6,031	1,559	2,648	10,238
Finished Aviation Gasoline	64	0	64	61	39	22	122
Jet Fuel	1,377	0	1,377	1,940	149	400	2,489
Naphtha-Type	119	0	119	161	54	147	362
Kerosene-Type	1,258	0	1,258	1,779	95	253	2,127
Kerosene	37	36	73	269	23	191	483
Distillate Fuel Oil	14,121	447	14,568	6,154	1,177	2,225	9,556
0.05 percent sulfur and under	2,475	223	2,698	2,582	487	620	3,689
Greater than 0.05 percent sulfur	11,646	224	11,870	3,572	690	1,405	5,667
Residual Fuel Oil	4,160	79	4,239	1,566	301	74	1,961
Less than 0.31 percent sulfur	1,968	54	2,022	0	0	12	12
0.31 to 1.00 percent sulfur	1,587	25	1,612	357	0	1	358
Greater than 1.00 percent sulfur	605	0	605	1,229	301	61	1,591
Naphtha for Petrochemical Feedstock Use	272	0	272	158	0	16	174
Other Oils for Petrochemical Feedstock Use	3	0	3	2	0	0	2
Special Naphthas	0	35	35	194	0	141	335
Lubricants	395	410	805	711	0	0	711
Waxes	0	163	163	112	0	22	134
Petroleum Coke (Marketable)	911	0	911	419	960	130	1,509
Asphalt and Road Oil	1,461	322	1,783	2,763	1,138	1,062	4,943
Miscellaneous Products	30	47	77	109	11	24	144
Total Stocks, All Oils	67,186	3,026	70,212	47,893	9,261	16,006	73,160

See footnotes at end of table.

Table 18. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, 1993 (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	967	23,869	16,833	1,455	430	43,574	1,961	20,176	93,261
Petroleum Products	10,026	66,174	43,794	6,112	1,405	130,513	11,690	65,577	323,622
Pentanes Plus	177	109	36	10	18	350	6	8	1,342
Liquefied Petroleum Gases	1,335	3,537	3,465	43	46	8,426	435	1,252	15,525
Ethane/Ethylene	99	847	0	0	0	946	0	0	949
Propane/Propylene	416	949	933	10	6	2,314	93	130	4,942
Normal Butane/Butylene	495	955	1,928	13	16	3,407	216	733	6,731
Isobutane/Isobutylene	325	786	604	20	24	1,759	126	389	2,903
Other Hydrocarbons/Hydrogen/Oxygenates	166	1,358	509	16	30	2,079	184	2,296	6,036
Other Hydrocarbons/Hydrogen	0	0	1	0	0	1	0	7	40
Oxygenates	166	1,358	508	W	W	2,078	184	2,289	5,995
Fuel Ethanol	W	W	W	W	W	W	W	W	337
Methanol	W	W	W	W	W	W	W	W	316
MTBE	W	1,156	W	W	W	1,740	W	2,239	5,314
Other Oxygenates ^a	W	W	W	W	W	W	W	W	28
Unfinished Oils	2,206	22,282	15,488	1,069	404	41,449	2,727	21,183	88,420
Naphthas and Lighter	674	6,148	3,270	318	122	10,530	447	3,732	20,310
Kerosene and Light Gas Oils	382	3,824	2,149	157	59	6,551	413	3,618	14,453
Heavy Gas Oils	710	7,707	7,167	501	223	16,308	1,514	10,649	37,710
Residuum	460	4,603	2,902	95	0	8,060	353	3,184	15,947
Motor Gasoline Blending Components	1,573	7,285	4,929	203	378	14,468	2,082	7,728	36,190
Aviation Gasoline Blending Components	0	0	27	0	0	27	0	9	78
Finished Motor Gasoline	1,573	12,076	5,483	1,178	135	20,445	1,999	11,353	59,825
Reformulated	0	0	0	0	0	0	0	0	0
Oxygenated	0	2,133	385	31	0	2,549	215	5,397	12,141
Other	1,573	9,943	5,098	1,147	135	17,896	1,784	5,956	47,684
Finished Aviation Gasoline	86	110	73	0	0	269	40	105	600
Jet Fuel	534	2,714	2,604	157	78	6,085	374	4,229	14,554
Naphtha-Type	56	78	321	123	17	595	167	52	1,295
Kerosene-Type	478	2,636	2,283	34	59	5,490	207	4,177	13,259
Kerosene	37	604	169	6	11	827	25	96	1,504
Distillate Fuel Oil	1,060	8,179	4,286	1,045	154	14,704	1,559	6,144	46,531
0.05 percent sulfur and under	515	2,285	1,168	449	80	4,497	838	3,806	15,730
Greater than 0.05 percent sulfur	545	5,894	3,098	596	74	10,207	721	2,336	30,801
Residual Fuel Oil	206	3,720	2,389	194	16	6,525	402	4,474	17,601
Less than 0.31 percent sulfur	17	1	619	2	0	639	90	368	3,131
0.31 to 1.00 percent sulfur	31	567	233	147	16	994	129	709	3,802
Greater than 1.00 percent sulfur	158	3,152	1,537	45	0	4,892	183	3,397	10,668
Naphtha for Petrochemical Feedstock Use	22	890	440	0	12	1,364	0	55	1,865
Other Oils for Petrochemical Feedstock Use	45	1,020	128	0	0	1,193	2	175	1,375
Special Naphthas	124	1,191	105	94	0	1,514	1	48	1,933
Lubricants	26	2,840	1,228	636	0	4,730	0	967	7,233
Waxes	6	189	235	17	0	449	30	78	854
Petroleum Coke (Marketable)	4	113	1,449	625	0	2,191	257	3,643	8,511
Asphalt and Road Oil	704	805	630	819	125	3,083	1,553	1,627	12,969
Miscellaneous Products	42	152	141	0	0	335	14	87	657
Total Stocks, All Oils	11,015	93,043	60,627	7,567	1,835	174,067	13,651	65,753	416,863

^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 end of December. • Refer to Appendix A for Refining District descriptions.

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

Table 19. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts,^a 1993

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	3.2	0.5	3.0	4.0	3.0	3.5	3.8
Finished Motor Gasoline ^b	46.2	38.6	45.7	51.5	51.2	48.3	50.8
Finished Aviation Gasoline ^c	0.1	0.0	0.0	0.1	0.3	0.1	0.1
Naphtha-Type Jet Fuel	0.6	0.0	0.5	0.4	0.1	1.2	0.5
Kerosene-Type Jet Fuel	5.6	0.0	5.2	5.9	6.3	5.9	6.0
Kerosene	0.1	2.0	0.2	0.7	0.7	0.3	0.6
Distillate Fuel Oil	26.5	27.0	26.5	22.5	26.2	26.5	24.1
Residual Fuel Oil	8.4	2.7	8.1	2.8	2.3	0.9	2.3
Naphtha for Petrochemical Feedstock Use	1.1	0.0	1.1	0.9	0.0	0.1	0.6
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	0.9	0.0	0.3	0.7
Special Naphthas	0.0	1.0	0.1	0.5	0.0	0.5	0.4
Lubricants	0.6	9.0	1.1	0.7	0.0	1.2	0.7
Waxes	0.0	4.2	0.3	0.1	0.0	0.1	0.1
Petroleum Coke	3.4	0.8	3.3	3.8	5.7	3.8	4.0
Asphalt and Road Oil	5.0	9.2	5.3	5.8	6.0	4.2	5.5
Still Gas	4.0	4.6	4.0	4.3	3.4	4.8	4.3
Miscellaneous Products	0.1	1.4	0.1	0.3	0.4	0.3	0.3
Processing Gain(-) or Loss(+) ^d	-4.8	-1.0	-4.6	-4.9	-5.5	-3.8	-4.7

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 M.	West Coast	
Liquefied Refinery Gases	4.3	6.2	4.0	2.0	2.9	5.0	1.6	3.3	4.1
Finished Motor Gasoline ^b	49.7	45.1	44.5	25.9	51.7	44.7	47.5	43.7	46.1
Finished Aviation Gasoline ^c	0.8	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.2
Naphtha-Type Jet Fuel	2.2	0.4	1.0	3.8	7.4	0.9	2.3	0.6	0.8
Kerosene-Type Jet Fuel	8.0	9.2	11.1	2.2	2.7	9.6	5.2	15.1	9.2
Kerosene	0.1	0.4	0.3	0.1	0.1	0.3	0.4	0.1	0.3
Distillate Fuel Oil	24.4	19.2	22.2	27.2	26.7	21.1	27.8	17.4	21.9
Residual Fuel Oil	2.3	5.7	5.6	5.0	0.7	5.3	2.4	10.8	5.8
Naphtha for Petrochemical Feedstock Use	0.6	3.0	0.6	0.0	0.0	1.7	0.0	-0.1	1.0
Other Oils for Petrochemical Feedstock Use	0.9	4.8	3.7	0.0	0.0	3.8	0.2	0.4	2.0
Special Naphthas	0.6	0.7	0.3	2.2	0.0	0.6	0.0	0.1	0.4
Lubricants	0.2	1.7	0.9	9.1	0.0	1.5	0.0	0.8	1.1
Waxes	0.1	0.2	0.1	1.0	0.0	0.2	0.2	0.1	0.1
Petroleum Coke	2.0	4.1	5.1	2.4	0.8	4.2	3.1	5.9	4.3
Asphalt and Road Oil	2.8	0.8	1.3	17.3	5.4	1.7	7.5	1.9	3.2
Still Gas	4.2	4.8	4.1	3.4	2.9	4.4	4.6	5.7	4.6
Miscellaneous Products	0.3	0.3	0.4	0.0	0.0	0.3	0.6	0.3	0.3
Processing Gain(-) or Loss(+) ^d	-3.5	-6.6	-5.3	-1.4	-1.2	-5.6	-3.5	-6.3	-5.4

^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 17 and 18.

Table 20. Imports of Crude Oil and Petroleum Products by PAD District, 1993
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil^{a,b}	488,903	491,574	1,363,540	32,941	100,272	2,477,230	6,787
Natural Gas Liquids	8,662	28,426	27,619	5,130	232	70,069	192
Pentanes Plus	1,512	503	7,159	2,668	0	11,842	32
Liquefied Petroleum Gases	7,150	27,923	20,460	2,462	232	58,227	160
Ethane	1	5,239	0	0	0	5,240	14
Ethylene	0	0	46	0	0	46	(s)
Propane	5,977	15,663	12,994	1,469	112	36,215	99
Propylene	0	1,499	0	0	0	1,499	4
Normal Butane	1,066	3,421	5,326	845	37	10,695	29
Butylene	0	0	103	0	0	103	(s)
Isobutane	106	2,101	1,975	148	83	4,413	12
Isobutylene	0	0	16	0	0	16	(s)
Other Liquids	55,353	705	130,633	0	10,150	196,841	539
Other Hydrocarbons/Hydrogen/Oxygenates	2,398	0	262	0	4,896	7,556	21
Other Hydrocarbons/Hydrogen	0	0	0	0	0	0	0
Oxygenates	2,398	0	262	0	4,896	7,556	21
Fuel Ethanol	0	0	0	0	244	244	1
MTBE	2,364	0	262	0	4,652	7,278	20
Other Oxygenates ^c	34	0	0	0	0	34	(s)
Unfinished Oils ^a	45,612	370	128,504	0	4,815	179,301	491
Naphthas and Lighter	1,934	370	22,943	0	0	25,247	69
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	32,965	0	27,785	0	834	61,584	169
Residuum	10,713	0	77,776	0	3,981	92,470	253
Motor Gasoline Blending Components	7,343	335	1,867	0	439	9,984	27
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	300,550	5,647	77,651	1,310	17,156	402,314	1,102
Finished Motor Gasoline	84,432	908	1,363	120	3,419	90,242	247
Reformulated	0	0	0	0	0	0	0
Oxygenated	421	0	0	0	0	421	1
Other	84,011	908	1,363	120	3,419	89,821	246
Finished Aviation Gasoline	0	32	0	0	46	78	(s)
Jet Fuel	29,937	831	2,445	0	3,270	36,483	100
Naphtha-Type	2,046	792	584	0	268	3,690	10
Kerosene-Type	27,891	39	1,861	0	3,002	32,793	90
Bonded Aircraft Fuel	15,803	0	0	0	300	16,103	44
Other	12,088	39	1,861	0	2,702	16,690	46
Kerosene	239	0	47	0	21	307	1
Distillate Fuel Oil	59,237	2,244	2,399	1,138	2,166	67,184	184
Bonded Ship Bunkers	0	0	0	19	639	658	2
0.05 percent sulfur and under	0	0	0	19	0	19	(s)
Greater than 0.05 percent sulfur	0	0	0	0	639	639	2
Other	59,237	2,244	2,399	1,119	1,527	66,526	182
0.05 percent sulfur and under	22,128	1,051	2,399	456	1,004	27,038	74
Greater than 0.05 percent sulfur	37,109	1,193	0	663	523	39,488	108
Residual Fuel Oil	110,481	257	18,195	18	7,200	136,151	373
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	110,481	257	18,195	18	7,200	136,151	373
Less than 0.31 percent sulfur	16,871	0	2,128	5	1,412	20,416	56
0.31 to 1.00 percent sulfur	20,890	182	520	5	428	22,023	60
Greater than 1.00 percent sulfur	72,720	75	15,547	8	5,362	93,712	257
Naphtha for Petrochemical Feedstock Use	1,806	215	11,010	0	255	13,286	36
Other Oils for Petrochemical Feedstock Use	0	0	40,343	0	0	40,343	111
Special Naphthas	188	756	796	0	50	1,790	5
Lubricants	2,156	161	148	0	31	2,496	7
Waxes	413	70	105	34	24	646	2
Petroleum Coke	0	0	512	0	177	689	2
Asphalt and Road Oil	10,960	100	220	0	491	11,771	32
Miscellaneous Products	701	73	68	0	6	848	2
Total	853,466	526,352	1,599,443	39,381	127,810	3,146,454	8,620

^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 21. Imports of Crude Oil and Petroleum Products Into the United States by Country of Origin,^a 1993
(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	606,375	17,570	44,537	0	5,758	1,262	368	10,176	0	0
Algeria	8,746	7,727	12,885	0	0	0	368	8,000	0	0
Kuwait	125,524	628	0	0	0	0	0	2,176	0	0
Qatar	0	0	197	0	0	0	0	0	0	0
Saudi Arabia	467,753	9,215	30,852	0	5,758	1,242	0	0	0	0
United Arab Emirates	4,352	0	603	0	0	20	0	0	0	0
Other OPEC	739,410	341	15,103	3,561	14,731	16,660	24,211	34,181	0	19
Ecuador	28,378	0	0	0	0	0	0	1,156	0	0
Gabon	54,952	0	0	0	0	0	0	445	0	0
Indonesia	23,907	0	760	0	0	1	0	4,622	0	0
Nigeria	263,532	0	1,381	0	0	0	241	4,765	0	0
Venezuela	368,641	341	12,982	3,561	14,731	16,659	23,970	23,193	0	19
Non OPEC	1,131,445	40,316	119,661	6,423	69,753	18,561	42,605	91,794	307	1,771
Angola	122,741	0	0	0	0	0	0	0	0	0
Argentina	4,227	0	0	373	0	0	69	721	0	0
Australia	6,614	182	196	0	0	1	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	10,164	0	0
Belgium	0	0	2,108	123	1,745	0	0	895	0	0
Benin	886	0	0	0	0	0	0	0	0	0
Brazil	0	0	591	23	10,609	0	0	428	0	0
Brunei	155	0	0	0	0	0	0	0	0	0
Cameroon	2,714	0	132	0	0	0	0	909	0	0
Canada	328,504	34,530	4,854	443	19,849	923	20,700	8,296	241	1,630
China, People's Republic of	18,398	0	0	0	162	0	0	0	0	82
Colombia	51,520	0	0	0	0	0	0	10,755	0	0
Congo	19,222	0	0	0	0	0	0	2,170	0	0
Denmark	420	0	0	0	0	0	0	0	0	0
Egypt	24,688	0	1,662	0	0	0	0	357	0	0
France	0	121	2,870	213	3,640	0	0	0	0	0
Germany, FR	0	0	5,819	0	0	0	0	1,370	0	0
Greece	0	0	324	0	0	0	0	0	0	0
Guatemala	2,092	0	0	0	0	0	0	0	0	0
India	0	0	1,093	0	0	0	0	0	0	0
Italy	0	46	5,289	0	4,734	0	0	1,078	0	28
Ivory Coast	0	0	417	0	0	0	0	247	0	0
Japan	0	16	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	10,230	131	0	0	0	954	0	0
Malaysia	3,643	4	0	0	333	0	0	0	0	0
Mauritania	0	0	145	0	0	0	0	0	0	0
Mexico	314,961	4,188	2,839	1,843	190	1,353	415	5,033	47	36
Netherlands	0	9	2,347	267	817	0	0	282	0	0
Netherlands Antilles	0	51	12,858	330	529	2,025	477	11,469	19	0
New Zealand	823	0	0	0	211	0	0	0	0	0
Norway	49,931	0	1,389	0	273	0	0	269	0	0
Oman	10,070	0	4,804	0	0	0	0	0	0	0
Panama	0	0	359	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	3,297	0	0
Portugal	0	60	715	0	0	0	0	1,825	0	0
Puerto Rico	0	0	237	0	0	2,046	133	0	0	0
Singapore	504	0	4,950	0	0	594	0	381	0	0
Spain	0	0	6,676	0	3,626	0	0	415	0	0
Sweden	0	0	1,103	0	92	0	0	0	0	0
Syria	6,374	0	2,523	0	0	0	0	0	0	0
Thailand	2,147	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	20,209	0	221	238	672	250	215	5,206	0	0
Tunisia	0	0	175	0	0	0	0	155	0	0
Turkey	0	0	2,716	0	0	0	0	2,140	0	0
United Kingdom	114,036	1,109	9,820	0	2,319	0	0	281	0	15
Russia	13,294	0	6,689	0	0	0	0	0	0	0
Virgin Islands	0	0	20,228	2,439	18,110	11,369	20,596	20,053	0	0
Yemen	2,312	0	1,046	0	0	0	0	1,729	0	0
Zaire	6,826	0	0	0	0	0	0	146	0	0
Other	4,134	0	2,236	0	1,842	0	0	769	0	0
Total	2,477,230	58,227	179,301	9,984	90,242	36,483	67,184	136,151	307	1,790
Persian Gulf^d	597,629	9,843	31,652	0	5,758	1,262	0	2,176	0	0

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,^a 1993 (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	572	37,736	0	0	5,768	123,747	730,122	1,661	339	2,000
Algeria	0	37,241	0	0	5,151	71,372	80,118	24	196	220
Kuwait	0	495	0	0	0	3,299	128,823	344	9	353
Qatar	0	0	0	0	0	197	197	0	1	1
Saudi Arabia	572	0	0	0	617	48,256	516,009	1,282	132	1,414
United Arab Emirates	0	0	0	0	0	623	4,975	12	2	14
Other OPEC	1,806	499	0	6,127	2,604	119,918	859,226	2,026	328	2,354
Ecuador	0	0	0	0	0	1,156	29,534	78	3	81
Gabon	0	0	0	0	0	445	55,397	151	1	152
Indonesia	422	0	0	0	17	5,822	29,729	65	16	81
Nigeria	0	0	0	0	0	6,387	269,919	722	17	740
Venezuela	1,387	469	0	6,127	2,587	106,008	474,647	1,010	290	1,300
Non OPEC	10,906	2,138	2,496	5,644	13,267	425,661	1,567,106	3,100	1,166	4,266
Angola	0	0	0	0	0	0	122,741	336	0	336
Argentina	700	368	0	0	456	2,687	6,914	12	7	19
Australia	0	0	0	0	0	379	6,993	18	1	19
Bahama Islands	0	0	0	0	0	10,164	10,164	0	28	28
Belgium	64	367	0	0	8	5,310	5,310	0	15	15
Benin	0	0	0	0	0	0	886	2	0	2
Brazil	69	0	0	0	213	11,933	11,933	0	33	33
Brunei	0	0	0	0	0	0	165	(a)	0	(a)
Cameroon	0	0	0	0	0	1,041	3,755	7	3	10
Canada	841	28	531	2,429	7,383	102,678	431,182	900	281	1,181
China, People's Republic of	0	0	0	0	93	317	18,715	50	1	51
Colombia	0	0	0	0	2	10,757	62,277	141	29	171
Congo	0	0	0	0	0	2,170	21,392	53	6	59
Denmark	0	0	0	0	0	0	420	1	0	1
Egypt	141	0	0	0	10	2,170	26,858	68	6	74
France	92	0	28	0	254	7,218	7,218	0	20	20
Germany, FR	0	0	0	0	71	7,260	7,260	0	20	20
Greece	0	0	0	0	0	324	324	0	1	1
Guatemala	0	0	0	0	0	0	2,092	6	0	6
India	0	283	0	0	0	1,376	1,376	0	4	4
Italy	33	0	95	0	126	11,429	11,429	0	31	31
Ivory Coast	0	0	0	0	0	664	664	0	2	2
Japan	29	0	31	0	25	101	101	0	(a)	(a)
Korea, Republic of	685	0	0	0	0	12,000	12,000	0	33	33
Malaysia	0	0	0	0	133	470	4,113	10	1	11
Mauritania	0	0	0	0	0	145	145	0	(a)	(a)
Mexico	835	0	0	0	3,543	20,322	335,283	863	56	919
Netherlands	32	0	0	0	53	3,807	3,807	0	10	10
Netherlands Antilles	957	823	0	453	0	29,991	29,991	0	82	82
New Zealand	0	0	0	0	0	211	1,034	2	1	3
Norway	0	0	0	0	0	1,931	51,862	137	5	142
Oman	0	0	0	0	0	4,804	14,874	28	13	41
Panama	0	0	0	0	0	359	359	0	1	1
Peru	0	0	0	0	0	3,297	3,297	0	9	9
Portugal	21	0	0	0	0	2,621	2,621	0	7	7
Puerto Rico	5,646	0	1,735	0	629	10,426	10,426	0	29	29
Singapore	120	0	0	0	0	6,045	6,549	1	17	18
Spain	0	0	66	2,762	0	13,545	13,545	0	37	37
Sweden	18	0	0	0	0	1,213	1,213	0	3	3
Syria	0	0	0	0	0	2,523	8,897	17	7	24
Thailand	0	0	0	0	0	0	2,147	6	0	6
Trinidad and Tobago	0	0	10	0	0	6,812	27,021	55	19	74
Tunisia	0	0	0	0	0	330	330	0	1	1
Turkey	308	0	0	0	0	5,164	5,164	0	14	14
United Kingdom	123	0	0	0	0	13,667	127,703	312	37	350
Russia	0	0	0	0	0	6,689	19,983	36	18	55
Virgin Islands	0	0	0	0	0	92,795	92,795	0	254	254
Yemen	191	0	0	0	0	2,966	5,278	6	8	14
Zaire	0	0	0	0	0	146	6,972	19	(a)	19
Other	0	269	0	0	288	5,404	9,538	11	15	26
Total	13,286	40,343	2,496	11,771	21,659	669,224	3,146,454	6,767	1,833	8,620
Persian Gulf^d	572	764	0	0	617	52,644	650,273	1,637	144	1,782

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

(a) = 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 22. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 1993
(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	59,199	2,039	2,203	0	5,758	784	0	7,905	0	0
Algeria	613	236	1,600	0	0	0	0	7,176	0	0
Kuwait	1,045	0	0	0	0	0	0	629	0	0
Saudi Arabia	57,540	1,803	0	0	5,758	784	0	0	0	0
United Arab Emirates	0	0	603	0	0	0	0	0	0	0
Other OPEC	220,515	170	1,367	3,196	14,254	16,391	24,182	29,399	0	0
Ecuador	1,426	0	0	0	0	0	0	1,158	0	0
Gabon	18,745	0	0	0	0	0	0	445	0	0
Indonesia	0	0	0	0	0	0	0	2,529	0	0
Nigeria	134,766	0	768	0	0	0	241	4,317	0	0
Venezuela	65,578	170	599	3,196	14,254	16,391	23,941	20,952	0	0
Non OPEC	209,190	4,941	42,042	4,147	64,420	12,782	35,055	73,277	239	188
Angola	58,612	0	0	0	0	0	0	0	0	0
Argentina	0	0	0	370	0	0	69	589	0	0
Australia	500	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	9,831	0	0
Belgium	0	0	375	123	1,745	0	0	895	0	0
Brazil	0	0	371	0	10,066	0	0	428	0	0
Cameroon	0	0	132	0	0	0	0	608	0	0
Canada	22,055	3,913	895	107	17,650	9	16,238	7,303	239	169
China, People's Republic of	4,690	0	0	0	0	0	0	0	0	0
Colombia	5,138	0	0	0	0	0	0	9,965	0	0
Congo	0	0	0	0	0	0	0	2,170	0	0
Egypt	7,709	0	0	0	0	0	0	0	0	0
France	0	0	653	213	3,364	0	0	0	0	0
Germany, FR	0	0	2,791	0	0	0	0	624	0	0
India	0	0	222	0	0	0	0	0	0	0
Italy	0	0	2,358	0	4,673	0	0	756	0	4
Ivory Coast	0	0	0	0	0	0	0	247	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	333	0	0	0	0	0
Mauritania	0	0	145	0	0	0	0	0	0	0
Mexico	32,251	0	327	468	190	0	415	190	0	0
Netherlands	0	0	306	267	817	0	0	282	0	0
Netherlands Antilles	0	0	1,378	0	430	1,428	259	11,162	0	0
Norway	32,532	0	0	0	273	0	0	0	0	0
Panama	0	0	359	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	2,834	0	0
Portugal	0	0	643	0	0	0	0	256	0	0
Puerto Rico	0	0	237	0	0	2,048	133	0	0	0
Singapore	0	0	294	0	0	0	0	0	0	0
Spain	0	0	4,476	0	3,352	0	0	415	0	0
Sweden	0	0	414	0	92	0	0	0	0	0
Syria	458	0	699	0	0	0	0	0	0	0
Trinidad and Tobago	1,046	0	0	238	672	26	215	4,650	0	0
Turkey	0	0	172	0	0	0	0	0	0	0
United Kingdom	37,772	1,028	4,679	0	2,319	0	0	281	0	15
Virgin Islands	0	0	19,639	2,361	16,602	9,273	17,726	19,079	0	0
Yemen	0	0	477	0	0	0	0	0	0	0
Zaire	5,754	0	0	0	0	0	0	146	0	0
Other	673	0	0	0	1,842	0	0	568	0	0
Total	488,903	7,150	45,612	7,343	84,432	29,937	59,237	110,481	239	188
Persian Gulf^d	58,585	1,803	603	0	5,758	784	0	629	0	0

See footnotes at end of table.

Table 22. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 1993 (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	486	19,055	78,253	162	52	214
Algeria	0	0	0	0	0	9,012	9,625	2	25	26
Kuwait	0	0	0	0	0	629	1,674	3	2	5
Saudi Arabia	0	0	0	0	486	8,811	66,351	158	24	182
United Arab Emirates	0	0	0	0	0	603	603	0	2	2
Other OPEC	0	0	0	5,668	1,474	96,101	316,616	604	263	867
Ecuador	0	0	0	0	0	1,156	2,582	4	3	7
Gabon	0	0	0	0	0	445	19,190	51	1	53
Indonesia	0	0	0	0	0	2,529	2,529	0	7	7
Nigeria	0	0	0	0	0	5,326	140,092	369	15	384
Venezuela	0	0	0	5,668	1,474	86,645	152,223	180	237	417
Non OPEC	1,806	0	2,156	5,292	3,064	249,409	456,599	573	663	1,236
Angola	0	0	0	0	0	0	58,612	161	0	161
Argentina	0	0	0	0	0	1,028	1,028	0	3	3
Australia	0	0	0	0	0	0	500	1	0	1
Bahama Islands	0	0	0	0	0	9,831	9,831	0	27	27
Belgium	0	0	0	0	0	3,138	3,138	0	9	9
Brazil	0	0	0	0	186	11,051	11,051	0	30	30
Cameroon	0	0	0	0	0	738	738	0	2	2
Canada	93	0	370	2,147	246	49,379	71,434	60	135	196
China, People's Republic of	0	0	0	0	37	37	4,727	13	(s)	13
Colombia	0	0	0	0	0	9,965	15,103	14	27	41
Congo	0	0	0	0	0	2,170	2,170	0	6	6
Egypt	0	0	0	0	0	0	7,709	21	0	21
France	22	0	0	0	254	4,506	4,506	0	12	12
Germany, FR	0	0	0	0	53	3,468	3,468	0	10	10
India	0	0	0	0	0	222	222	0	1	1
Italy	0	0	28	0	59	7,878	7,878	0	22	22
Ivory Coast	0	0	0	0	0	247	247	0	1	1
Japan	11	0	0	0	25	36	36	0	(s)	(s)
Malaysia	0	0	0	0	0	333	333	0	1	1
Mauritania	0	0	0	0	0	145	145	0	(s)	(s)
Mexico	0	0	0	0	1,512	3,102	35,353	88	8	97
Netherlands	0	0	0	0	46	1,718	1,718	0	5	5
Netherlands Antilles	0	0	0	453	0	15,110	15,110	0	41	41
Norway	0	0	0	0	0	273	32,805	89	1	90
Panama	0	0	0	0	0	359	359	0	1	1
Peru	0	0	0	0	0	2,834	2,834	0	8	8
Portugal	0	0	0	0	0	899	899	0	2	2
Puerto Rico	1,680	0	1,735	0	629	6,460	6,460	0	18	18
Singapore	0	0	0	0	0	294	294	0	1	1
Spain	0	0	23	2,692	0	10,958	10,958	0	30	30
Sweden	0	0	0	0	0	506	506	0	1	1
Syria	0	0	0	0	0	699	1,157	1	2	3
Trinidad and Tobago	0	0	0	0	0	5,801	6,847	3	16	19
Turkey	0	0	0	0	0	172	172	0	(s)	(s)
United Kingdom	0	0	0	0	0	8,322	46,094	103	23	126
Virgin Islands	0	0	0	0	0	84,680	84,680	0	232	232
Yemen	0	0	0	0	0	477	477	0	1	1
Zaire	0	0	0	0	0	146	5,900	16	(s)	16
Other	0	0	0	0	17	2,427	3,100	2	7	8
Total	1,806	0	2,156	10,960	5,024	364,565	853,468	1,339	999	2,338
Persian Gulf^d	0	0	0	0	486	10,043	66,628	161	28	188

^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 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 23. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 1993
(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	45,497	0	0	0	0	0	0	0	0	0
Algeria	1,091	0	0	0	0	0	0	0	0	0
Kuwait	13,379	0	0	0	0	0	0	0	0	0
Saudi Arabia	29,981	0	0	0	0	0	0	0	0	0
United Arab Emirates	1,046	0	0	0	0	0	0	0	0	0
Other OPEC	98,941	0	0	0	0	0	0	0	0	0
Ecuador	9,219	0	0	0	0	0	0	0	0	0
Gabon	1,053	0	0	0	0	0	0	0	0	0
Indonesia	397	0	0	0	0	0	0	0	0	0
Nigeria	38,546	0	0	0	0	0	0	0	0	0
Venezuela	51,726	0	0	0	0	0	0	0	0	0
Non OPEC	347,136	27,923	370	335	908	831	2,244	257	0	756
Angola	6,945	0	0	0	0	0	0	0	0	0
Canada	243,211	27,923	370	335	908	831	2,244	257	0	756
Colombia	8,961	0	0	0	0	0	0	0	0	0
Congo	4,012	0	0	0	0	0	0	0	0	0
Egypt	521	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	0	0	0	0	0	0	0	0
Malaysia	438	0	0	0	0	0	0	0	0	0
Mexico	48,652	0	0	0	0	0	0	0	0	0
Norway	7,523	0	0	0	0	0	0	0	0	0
Oman	1,067	0	0	0	0	0	0	0	0	0
Syria	1,273	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	1,757	0	0	0	0	0	0	0	0	0
United Kingdom	21,286	0	0	0	0	0	0	0	0	0
Russia	1,030	0	0	0	0	0	0	0	0	0
Yemen	460	0	0	0	0	0	0	0	0	0
Total	491,574	27,923	370	335	908	831	2,244	257	0	756
Persian Gulf^c	44,406	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

Table 23. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 1993 (Continued)
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^b	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	0	0	0	0	0	0	45,497	125	0	125
Algeria	0	0	0	0	0	0	1,091	3	0	3
Kuwait	0	0	0	0	0	0	13,379	37	0	37
Saudi Arabia	0	0	0	0	0	0	29,981	82	0	82
United Arab Emirates	0	0	0	0	0	0	1,046	3	0	3
Other OPEC	0	0	0	0	0	0	96,941	271	0	271
Ecuador	0	0	0	0	0	0	9,219	25	0	25
Gabon	0	0	0	0	0	0	1,053	3	0	3
Indonesia	0	0	0	0	0	0	397	1	0	1
Nigeria	0	0	0	0	0	0	36,546	100	0	100
Venezuela	0	0	0	0	0	0	51,726	142	0	142
Non OPEC	215	0	161	100	678	34,778	351,914	951	95	1,046
Angola	0	0	0	0	0	0	6,945	19	0	19
Canada	215	0	161	100	667	34,767	277,978	666	95	762
Colombia	0	0	0	0	0	0	8,961	25	0	25
Congo	0	0	0	0	0	0	4,012	11	0	11
Egypt	0	0	0	0	0	0	521	1	0	1
Germany, FR	0	0	0	0	11	11	11	0	(s)	(s)
Malaysia	0	0	0	0	0	0	438	1	0	1
Mexico	0	0	0	0	0	0	48,652	133	0	133
Norway	0	0	0	0	0	0	7,523	21	0	21
Oman	0	0	0	0	0	0	1,067	3	0	3
Syria	0	0	0	0	0	0	1,273	3	0	3
Trinidad and Tobago	0	0	0	0	0	0	1,757	5	0	5
United Kingdom	0	0	0	0	0	0	21,286	58	0	58
Russia	0	0	0	0	0	0	1,030	3	0	3
Yemen	0	0	0	0	0	0	460	1	0	1
Total	215	0	161	100	678	34,778	526,352	1,347	95	1,442
Persian Gulf^d	0	0	0	0	0	0	44,406	122	0	122

^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 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 24. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 1993
(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	492,706	18,631	42,334	0	0	0	368	1,873	0	0
Algeria	7,042	7,491	11,285	0	0	0	368	824	0	0
Kuwait	102,128	628	0	0	0	0	0	1,049	0	0
Qatar	0	0	197	0	0	0	0	0	0	0
Saudi Arabia	380,232	7,412	30,852	0	0	0	0	0	0	0
United Arab Emirates	3,306	0	0	0	0	0	0	0	0	0
Other OPEC	379,011	171	13,171	135	0	0	0	3,086	0	19
Ecuador	3,102	0	0	0	0	0	0	0	0	0
Gabon	35,154	0	0	0	0	0	0	0	0	0
Indonesia	1,775	0	541	0	0	0	0	648	0	0
Nigeria	92,220	0	613	0	0	0	0	448	0	0
Venezuela	246,760	171	12,017	135	0	0	0	1,990	0	19
Non OPEC	491,821	4,758	72,999	1,732	1,363	2,445	2,031	13,236	47	777
Angola	57,184	0	0	0	0	0	0	0	0	0
Argentina	4,227	0	0	3	0	0	0	132	0	0
Australia	1,838	182	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	333	0	0
Belgium	0	0	1,733	0	0	0	0	0	0	0
Benin	886	0	0	0	0	0	0	0	0	0
Brazil	0	0	220	23	281	0	0	0	0	0
Cameroon	2,714	0	0	0	0	0	0	303	0	0
Canada	4,428	0	3,489	1	0	10	0	358	0	655
China, People's Republic of	6,547	0	0	0	0	0	0	0	0	62
Colombia	35,531	0	0	0	0	0	0	790	0	0
Congo	15,210	0	0	0	0	0	0	0	0	0
Denmark	420	0	0	0	0	0	0	0	0	0
Egypt	16,458	0	1,662	0	0	0	0	357	0	0
France	0	121	2,217	0	245	0	0	0	0	0
Germany, FR	0	0	3,028	0	0	0	0	746	0	0
Greece	0	0	324	0	0	0	0	0	0	0
Guatemala	2,092	0	0	0	0	0	0	0	0	0
India	0	0	871	0	0	0	0	0	0	0
Italy	0	46	2,931	0	0	0	0	322	0	24
Ivory Coast	0	0	417	0	0	0	0	0	0	0
Japan	0	16	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	10,230	0	0	0	0	0	0	0
Malaysia	1,286	4	0	0	0	0	0	0	0	0
Mexico	232,940	4,188	1,569	1,375	0	572	0	1,484	47	36
Netherlands	0	9	2,041	0	0	0	0	0	0	0
Netherlands Antilles	0	51	11,117	330	0	0	0	307	0	0
New Zealand	280	0	0	0	0	0	0	0	0	0
Norway	9,876	0	1,163	0	0	0	0	269	0	0
Oman	3,562	0	4,804	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	132	0	0
Portugal	0	60	72	0	0	0	0	1,569	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Singapore	0	0	2,234	0	0	0	0	381	0	0
Spain	0	0	2,200	0	0	0	0	0	0	0
Sweden	0	0	689	0	0	0	0	0	0	0
Syria	4,643	0	1,824	0	0	0	0	0	0	0
Thailand	1,659	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	17,406	0	221	0	0	224	0	556	0	0
Tunisia	0	0	175	0	0	0	0	155	0	0
Turkey	0	0	2,544	0	0	0	0	2,140	0	0
United Kingdom	54,978	81	5,141	0	0	0	0	0	0	0
Russia	12,264	0	6,689	0	0	0	0	0	0	0
Virgin Islands	0	0	539	0	837	1,639	2,031	974	0	0
Yemen	1,852	0	569	0	0	0	0	1,729	0	0
Zaire	1,072	0	0	0	0	0	0	0	0	0
Other	2,468	0	2,236	0	0	0	0	201	0	0
Total	1,353,540	20,460	128,504	1,857	1,363	2,445	2,399	18,195	47	796
Persian Gulf^d	485,666	8,040	31,049	0	0	0	0	1,049	0	0

See footnotes at end of table.

Table 24. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 1993 (Continued)
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^a	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	572	37,736	0	0	5,282	103,696	596,404	1,360	284	1,634
Algeria	0	37,241	0	0	5,151	62,360	69,402	19	171	190
Kuwait	0	495	0	0	0	2,172	104,300	280	6	286
Qatar	0	0	0	0	0	197	197	0	1	1
Saudi Arabia	572	0	0	0	131	38,967	419,199	1,042	107	1,148
United Arab Emirates	0	0	0	0	0	0	3,306	9	0	9
Other OPEC	1,899	499	0	220	148	19,228	396,239	1,038	53	1,091
Ecuador	0	0	0	0	0	0	3,102	8	0	8
Gabon	0	0	0	0	0	0	35,154	98	0	98
Indonesia	422	0	0	0	17	1,628	3,403	5	4	9
Nigeria	0	0	0	0	0	1,061	93,281	253	3	256
Venezuela	1,367	499	0	220	131	16,539	263,209	676	45	721
Non OPEC	8,929	2,136	148	0	2,676	112,979	604,800	1,347	310	1,657
Angola	0	0	0	0	0	0	57,184	157	0	157
Argentina	700	368	0	0	456	1,659	5,666	12	5	16
Australia	0	0	0	0	0	182	2,020	5	(s)	6
Bahama Islands	0	0	0	0	0	333	333	0	1	1
Belgium	64	367	0	0	8	2,172	2,172	0	6	6
Benin	0	0	0	0	0	0	886	2	0	2
Brazil	69	0	0	0	27	620	620	0	2	2
Cameroon	0	0	0	0	0	303	3,017	7	1	8
Canada	533	28	0	0	0	5,072	9,500	12	14	26
China, People's Republic of	0	0	0	0	56	118	6,665	18	(s)	18
Colombia	0	0	0	0	2	792	36,323	97	2	100
Congo	0	0	0	0	0	0	15,210	42	0	42
Denmark	0	0	0	0	0	0	420	1	0	1
Egypt	141	0	0	0	10	2,170	18,628	45	6	51
France	70	0	28	0	0	2,681	2,681	0	7	7
Germany, FR	0	0	0	0	6	3,780	3,780	0	10	10
Greece	0	0	0	0	0	324	324	0	1	1
Guatemala	0	0	0	0	0	0	2,092	6	0	6
India	0	283	0	0	0	1,154	1,154	0	3	3
Italy	33	0	67	0	67	3,490	3,490	0	10	10
Ivory Coast	0	0	0	0	0	417	417	0	1	1
Japan	18	0	0	0	0	34	34	0	(s)	(s)
Korea, Republic of	430	0	0	0	0	10,660	10,660	0	29	29
Malaysia	0	0	0	0	0	4	1,290	4	(s)	4
Mexico	835	0	0	0	2,010	12,116	245,056	638	33	671
Netherlands	32	0	0	0	7	2,089	2,089	0	6	6
Netherlands Antilles	957	823	0	0	0	13,585	13,585	0	37	37
New Zealand	0	0	0	0	0	0	280	1	0	1
Norway	0	0	0	0	0	1,432	11,308	27	4	31
Oman	0	0	0	0	0	4,804	8,366	10	13	23
Peru	0	0	0	0	0	132	132	0	(s)	(s)
Portugal	21	0	0	0	0	1,722	1,722	0	5	5
Puerto Rico	3,966	0	0	0	0	3,966	3,966	0	11	11
Singapore	120	0	0	0	0	2,735	2,735	0	7	7
Spain	0	0	43	0	0	2,243	2,243	0	6	6
Sweden	18	0	0	0	0	707	707	0	2	2
Syria	0	0	0	0	0	1,824	6,487	13	5	18
Thailand	0	0	0	0	0	0	1,659	5	0	5
Trinidad and Tobago	0	0	10	0	0	1,011	18,417	48	3	50
Tunisia	0	0	0	0	0	330	330	0	1	1
Turkey	308	0	0	0	0	4,992	4,992	0	14	14
United Kingdom	123	0	0	0	0	5,345	60,323	151	15	165
Russia	0	0	0	0	0	6,689	18,953	34	18	52
Virgin Islands	0	0	0	0	0	6,070	6,070	0	17	17
Yemen	191	0	0	0	0	2,489	4,341	5	7	12
Zaire	0	0	0	0	0	0	1,072	3	0	3
Other	0	269	0	0	27	2,733	5,201	7	7	14
Total	11,010	40,343	148	220	8,106	235,903	1,599,443	3,736	646	4,382
Persian Gulf^d	572	764	0	0	131	41,605	527,271	1,331	114	1,445

^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 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 25. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 1993
(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	32,941	2,462	0	0	120	0	1,136	18	0	0
Canada	32,941	2,462	0	0	120	0	1,136	18	0	0
Total	32,941	2,462	0	0	120	0	1,136	18	0	0
PAD District V										
Arab OPEC	8,972	0	0	0	0	498	0	498	0	0
Kuwait	8,972	0	0	0	0	0	0	498	0	0
Saudi Arabia	0	0	0	0	0	478	0	0	0	0
United Arab Emirates	0	0	0	0	0	20	0	0	0	0
Other OPEC	40,843	0	565	230	477	269	29	1,696	0	0
Ecuador	14,631	0	0	0	0	0	0	0	0	0
Indonesia	21,735	0	219	0	0	1	0	1,445	0	0
Venezuela	4,577	0	346	230	477	268	29	251	0	0
Non OPEC	50,357	232	4,250	209	2,942	2,503	2,137	5,006	21	50
Australia	4,276	0	196	0	0	1	0	0	0	0
Brazil	0	0	0	0	262	0	0	0	0	0
Brunei	155	0	0	0	0	0	0	0	0	0
Canada	25,869	232	100	0	1,171	73	1,080	362	2	50
China, People's Republic of	7,161	0	0	0	162	0	0	0	0	0
Colombia	1,890	0	0	0	0	0	0	0	0	0
France	0	0	0	0	31	0	0	0	0	0
Germany, FR	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	61	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	131	0	0	0	954	0	0
Malaysia	1,919	0	0	0	0	0	0	0	0	0
Mexico	1,118	0	943	0	0	781	0	3,359	0	0
Netherlands Antilles	0	0	363	0	99	597	218	0	19	0
New Zealand	543	0	0	0	211	0	0	0	0	0
Norway	0	0	226	0	0	0	0	0	0	0
Oman	5,441	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	331	0	0
Singapore	504	0	2,422	0	0	594	0	0	0	0
Spain	0	0	0	0	274	0	0	0	0	0
Thailand	488	0	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	78	671	457	839	0	0	0
Other	993	0	0	0	0	0	0	0	0	0
Total	100,272	232	4,815	439	3,419	3,270	2,166	7,200	21	50
Persian Gulf ^d	8,972	0	0	0	0	498	0	498	0	0

See footnotes at end of table.

Table 25. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 1993 (Continued)
(Thousand Barrels)

(Thousands Barrels)										
Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use					Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
PAD District IV										
Non OPEC	0	0	0	0	2,702	6,440	39,381	90	18	108
Canada	0	0	0	0	2,702	6,440	39,381	90	18	108
Total	0	0	0	0	2,702	6,440	39,381	90	18	108
PAD District V										
Arab OPEC	0	0	0	0	0	996	9,968	25	3	27
Kuwait	0	0	0	0	0	498	9,470	25	1	26
Saudi Arabia	0	0	0	0	0	478	478	0	1	1
United Arab Emirates	0	0	0	0	0	20	20	0	(a)	(a)
Other OPEC	0	0	0	239	982	4,487	48,430	112	12	124
Ecuador	0	0	0	0	0	0	14,831	40	0	40
Indonesia	0	0	0	0	0	1,866	23,400	60	5	64
Venezuela	0	0	0	239	982	2,822	7,399	13	8	20
Non OPEC	255	0	31	282	4,167	22,058	72,412	138	60	198
Australia	0	0	0	0	0	197	4,473	12	1	12
Brazil	0	0	0	0	0	262	262	0	1	1
Brunei	0	0	0	0	0	0	155	(a)	0	(a)
Canada	0	0	0	182	3,768	7,020	32,889	71	19	90
China, People's Republic of	0	0	0	0	0	162	7,323	20	(a)	20
Colombia	0	0	0	0	0	0	1,890	5	0	5
France	0	0	0	0	0	31	31	0	(a)	(a)
Germany, FR	0	0	0	0	1	1	1	0	(a)	(a)
Italy	0	0	0	0	0	61	61	0	(a)	(a)
Japan	0	0	31	0	0	31	31	0	(a)	(a)
Korea, Republic of	255	0	0	0	0	1,340	1,340	0	4	4
Malaysia	0	0	0	0	133	133	2,052	5	(a)	6
Mexico	0	0	0	0	21	5,104	6,222	3	14	17
Netherlands Antilles	0	0	0	0	0	1,296	1,296	0	4	4
New Zealand	0	0	0	0	0	211	754	1	1	2
Norway	0	0	0	0	0	226	226	0	1	1
Oman	0	0	0	0	0	0	5,441	15	0	15
Peru	0	0	0	0	0	331	331	0	1	1
Singapore	0	0	0	0	0	3,016	3,520	1	8	10
Spain	0	0	0	70	0	344	344	0	1	1
Thailand	0	0	0	0	0	0	488	1	0	1
Virgin Islands	0	0	0	0	0	2,045	2,045	0	6	6
Other	0	0	0	0	244	244	1,237	3	1	3
Total	255	0	31	491	5,149	27,538	127,810	275	75	350
Persian Gulf ^d	0	0	0	0	0	996	9,968	25	3	27

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

(a) = 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 26. Imports of Residual Fuel Oil by Sulfur Content and by PAD District and State of Entry, 1993
(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	16,671	20,690	72,720	110,481
Delaware	621	0	601	1,222
Florida	0	2,662	14,140	16,792
Georgia	0	0	2,169	2,169
Maine	806	583	4,937	6,326
Maryland	888	750	4,799	6,137
Massachusetts	1,028	3,215	7,179	11,422
New Hampshire	0	0	1,324	1,324
New Jersey	2,118	2,178	12,040	16,336
New York	5,734	7,628	10,541	23,903
North Carolina	0	16	5,089	5,105
Pennsylvania	5,863	3,086	1,711	10,672
Rhode Island	0	0	372	372
South Carolina	113	28	2,554	2,695
Vermont	0	0	21	21
Virginia	0	742	5,243	5,985
PAD District II	0	182	75	257
Michigan	0	68	0	68
Minnesota	0	1	4	5
North Dakota	0	113	28	141
Ohio	0	0	43	43
PAD District III	2,126	520	15,547	18,195
Alabama	0	0	1,073	1,073
Louisiana	1,069	0	3,162	4,231
Mississippi	0	0	2,259	2,259
Texas	1,059	520	9,053	10,632
PAD District IV	5	5	8	18
Montana	5	5	8	18
PAD District V	1,412	426	5,362	7,200
Alaska	0	0	48	48
California	849	380	4,845	6,074
Hawaii	100	0	0	100
Oregon	463	0	0	463
Washington	0	46	469	515
U.S. Total	20,416	22,023	93,712	136,151

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

Table 27. Exports of Crude Oil and Petroleum Products by PAD District, 1993
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil ^a	2	736	1	0	35,095	35,834	98
Natural Gas Liquids	661	2,084	8,670	100	4,389	16,203	44
Pentanes Plus	20	211	293	19	(a)	543	1
Liquefied Petroleum Gases	661	1,853	8,676	80	4,389	15,660	43
Ethane/Ethylene	0	0	0	0	0	0	0
Propane/Propylene	363	1,169	6,580	2	1,534	9,648	26
Normal Butane/Butylene	298	684	2,097	78	2,854	6,011	16
Isobutane/isobutylene	0	0	0	0	0	0	0
Other Liquids	37	29	817	0	1,734	2,617	7
Other Hydrocarbons/Oxygenates	0	0	0	0	0	0	0
Motor Gasoline Blend. Comp.	37	29	817	0	1,734	2,617	7
Finished Petroleum Products	10,979	6,712	164,984	117	128,529	311,320	853
Finished Motor Gasoline	1,532	565	27,355	3	8,737	38,193	105
Naphtha-Type Jet Fuel	18	30	1,577	0	4,291	5,916	16
Kerosene-Type Jet Fuel	316	288	7,727	0	7,454	15,784	43
Kerosene	27	53	1,187	0	22	1,289	4
Distillate Fuel Oil	1,684	790	53,198	12	44,272	99,957	274
Residual Fuel Oil	3,552	347	20,517	0	20,647	45,064	123
Special Naphthas	112	214	689	3	291	1,309	4
Lubricants	1,405	472	3,559	49	1,297	6,782	19
Waxes	150	57	333	1	171	712	2
Petroleum Coke	1,994	2,428	48,734	39	41,142	94,336	258
Asphalt and Road Oil	112	1,468	78	9	193	1,860	5
Miscellaneous Products	76	1	30	(a)	12	118	(a)
Total	11,699	9,541	174,771	217	169,747	365,974	1,003

^a Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories, and 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.

(a) - 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 28. Exports of Crude Oil and Petroleum Products by Destination, 1993
(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	769	48	0	190	0
Australia	0	0	10	839	0	(s)	607	139
Bahama Islands	0	0	157	915	113	(s)	2,560	2,067
Bahrain	0	0	0	0	0	0	1	0
Belgium & Luxembourg	0	0	11	2	0	0	63	0
Brazil	0	0	435	(s)	140	(s)	4,154	38
Cameroon	0	0	0	0	0	0	0	0
Canada	738	243	2,517	2,986	2,465	69	2,740	5,505
Chile	0	0	231	0	6	219	1,290	0
China, People's Republic of	0	0	0	700	715	1	8,773	240
China, Taiwan	0	0	731	1,882	0	(s)	8,025	2,406
Colombia	0	(s)	663	0	0	(s)	13	0
Costa Rica	0	0	1	392	31	0	693	102
Denmark	0	0	2	0	0	(s)	0	0
Dominican Republic	0	7	326	347	6	(s)	102	255
Ecuador	0	0	1,723	0	0	0	3	0
Egypt	0	0	0	0	0	5	14	0
El Salvador	0	0	157	174	13	1	333	31
Finland	0	0	0	0	0	0	193	(s)
France	0	0	(s)	15	0	0	1,396	0
French Pacific Islands	0	0	16	4	19	0	1	346
Germany, FR	0	0	107	1	0	1	2	0
Ghana	0	0	0	0	0	0	0	0
Greece	0	0	2	0	0	(s)	(s)	0
Guatemala	0	0	208	1,591	67	27	1,300	854
Guinea	0	0	0	0	1	0	(s)	0
Honduras	0	0	158	672	128	42	1,040	0
Hong Kong	0	0	1	0	(s)	(s)	941	303
India	0	0	0	0	796	0	1,310	273
Indonesia	0	0	276	0	0	0	1,830	3
Ireland	0	0	0	0	0	0	(s)	294
Israel	0	(s)	3	18	1,407	(s)	218	(s)
Italy	0	1	4	1	0	0	121	2,538
Jamaica	0	0	157	121	30	1	749	6,272
Japan	0	0	10	196	10,993	314	3,560	2,016
Korea, Republic of	400	139	39	272	2,493	544	17,470	3,745
Malaysia	0	0	2	0	0	0	5	0
Mexico	0	0	6,568	21,233	55	14	936	8,432
Netherlands	0	0	1	0	240	1	8,683	549
Netherlands Antilles	0	0	39	921	28	(s)	3,099	428
New Zealand	0	0	0	0	0	(s)	1	0
Nigeria	0	0	0	303	685	0	215	0
Norway	0	0	(s)	0	0	0	0	0
Panama	0	0	210	15	30	6	2,406	1,552
Peru	0	153	34	10	11	0	2,311	298
Philippines	0	0	0	146	50	0	3,303	209
Poland	0	0	0	0	0	0	(s)	0
Portugal	0	0	0	0	(s)	0	968	0
Puerto Rico	2	0	15	959	843	7	2,537	7
Russia	0	0	0	0	0	0	4	1
Saudi Arabia	0	0	5	(s)	0	(s)	8	0
Singapore	0	0	(s)	2,190	226	0	10,235	4,150
South Africa	0	0	0	0	0	0	203	26
Spain	0	1	1	0	1	0	2,656	57
Suriname	0	0	26	0	0	(s)	0	0
Sweden	0	0	(s)	0	0	0	83	0
Switzerland	0	0	(s)	0	0	1	(s)	0
Thailand	0	0	155	0	0	(s)	3	306
Trinidad and Tobago	0	0	1	0	0	0	2	0
Turkey	0	0	0	0	0	0	1	0
United Arab Emirates	0	0	(s)	0	0	0	96	1,435
United Kingdom	0	0	221	14	1	16	9	0
Uruguay	0	0	0	0	0	0	0	0
Venezuela	0	0	141	(s)	0	0	7	1
Virgin Islands	34,695	0	2	0	0	16	220	0
Yugoslavia	0	0	0	0	0	0	2	0
Other	0	0	268	503	62	1	2,271	185
Total	35,834	543	15,660	38,193	21,700	1,289	99,957	45,064

See footnotes at end of table.

Table 28. Exports of Crude Oil and Petroleum Products by Destination, 1993 (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	1	105	4	3	1	227	1,349	4
Australia	5	67	9	3,846	3	(s)	5,525	15
Bahama Islands	3	43	0	0	3	1	5,860	16
Bahrain	(s)	1	(s)	685	(s)	0	687	2
Belgium & Luxembourg	21	59	6	7,396	7	(s)	7,567	21
Brazil	301	62	1	687	1	1	5,820	16
Cameroon	0	4	0	143	0	0	147	(s)
Canada	420	1,200	200	5,179	1,595	376	26,234	72
Chile	(s)	76	3	6	1	3	1,835	5
China, People's Republic of	4	290	4	0	2	(s)	10,730	29
China, Taiwan	25	232	5	5	9	1,028	14,347	39
Colombia	3	95	9	272	1	5	1,060	3
Costa Rica	15	127	4	0	(s)	(s)	1,366	4
Denmark	0	2	3	1,825	1	0	1,832	5
Dominican Republic	6	62	4	100	0	1	1,217	3
Ecuador	(s)	18	2	0	1	(s)	1,749	5
Egypt	(s)	25	(s)	2	1	0	49	(s)
El Salvador	3	101	1	0	0	1	815	2
Finland	0	9	(s)	526	1	(s)	729	2
France	16	13	23	1,608	8	(s)	3,079	8
French Pacific Islands	0	3	0	0	(s)	0	388	1
Germany, FR	17	39	39	1,353	49	32	1,639	4
Ghana	0	1	0	0	0	0	1	(s)
Greece	(s)	15	(s)	1,657	0	(s)	1,675	5
Guatemala	25	60	10	0	(s)	(s)	4,164	11
Guinea	(s)	12	0	0	0	0	14	(s)
Honduras	12	60	2	0	0	(s)	2,113	6
Hong Kong	2	43	14	0	0	(s)	1,305	4
India	(s)	127	9	84	1	4	2,603	7
Indonesia	1	264	1	165	1	0	2,541	7
Ireland	(s)	(s)	3	307	0	1	606	2
Israel	16	17	(s)	538	0	(s)	2,217	6
Italy	1	7	6	9,597	4	1	12,280	34
Jamaica	2	31	2	127	0	2	7,495	21
Japan	97	283	41	20,924	14	25	38,476	105
Korea, Republic of	166	82	13	1,652	3	1	27,017	74
Malaysia	(s)	12	1	(s)	(s)	2	23	(s)
Mexico	49	1,465	212	890	81	58	39,993	110
Netherlands	30	23	8	6,877	19	(s)	16,431	45
Netherlands Antilles	0	325	(s)	0	1	272	5,114	14
New Zealand	(s)	13	4	547	1	0	566	2
Nigeria	(s)	92	(s)	0	1	1	1,298	4
Norway	3	4	(s)	36	0	(s)	43	(s)
Panama	6	37	(s)	72	0	199	4,534	12
Peru	(s)	126	3	140	0	1	3,085	8
Philippines	(s)	33	6	30	(s)	292	4,069	11
Poland	0	7	(s)	0	0	0	7	(s)
Portugal	(s)	1	(s)	177	(s)	0	1,146	3
Puerto Rico	13	150	14	0	(s)	1	4,547	12
Russia	3	22	(s)	30	0	1	62	(s)
Saudi Arabia	1	26	(s)	123	0	2	165	(s)
Singapore	2	161	4	44	4	2	17,019	47
South Africa	(s)	29	3	374	1	0	634	2
Spain	(s)	11	18	8,299	2	(s)	11,046	30
Suriname	0	2	0	0	0	0	29	(s)
Sweden	0	11	2	433	0	82	610	2
Switzerland	14	3	(s)	58	1	0	76	(s)
Thailand	1	70	3	14	(s)	5	558	2
Trinidad and Tobago	(s)	3	1	0	(s)	(s)	8	(s)
Turkey	0	16	(s)	10,859	(s)	0	10,876	30
United Arab Emirates	1	38	0	347	2	1	1,919	5
United Kingdom	4	55	10	3,231	22	(s)	3,582	10
Uruguay	0	12	(s)	0	0	3	15	(s)
Venezuela	13	14	4	1,530	6	7	1,723	5
Virgin Islands	(s)	2	0	0	0	1	34,936	96
Yugoslavia	0	1	0	322	0	0	324	1
Other	4	366	2	1,217	11	95	5,006	14
Total	1,309	6,782	712	94,336	1,660	2,736	365,974	1,003

^a Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories, and 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 29. Net Imports of Crude Oil and Petroleum Products Into the United States by Country, 1993
(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	1,661	48	16	3	1	24	-1	(s)	243	333	1,995
Algeria	24	21	0	0	1	22	0	(s)	151	196	219
Kuwait	344	2	0	0	(s)	6	0	(s)	1	9	353
Qatar	0	0	0	0	(s)	0	(s)	(s)	1	1	1
Saudi Arabia	1,282	25	16	3	(s)	0	(s)	(s)	88	132	1,413
United Arab Emirates	12	(s)	0	(s)	(s)	-4	-1	(s)	2	-4	8
Other OPEC	2,026	-5	40	44	61	94	-5	-1	81	308	2,334
Ecuador	78	-5	0	0	(s)	3	0	(s)	(s)	-2	76
Gabon	151	0	0	0	0	1	0	0	0	1	152
Indonesia	85	-1	0	(s)	-5	13	(s)	-1	3	9	74
Iran	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Nigeria	722	0	-1	-2	(s)	13	0	(s)	4	14	736
Venezuela	1,010	1	40	46	66	64	-4	(s)	74	286	1,296
Nor. OPEC	3,002	73	87	-7	-151	132	-251	-10	414	287	3,289
Angola	336	0	0	0	0	0	0	(s)	(s)	(s)	336
Argentina	12	(s)	-2	(s)	(s)	2	1	(s)	3	4	15
Australia	18	(s)	-2	(s)	-2	(s)	-11	(s)	(s)	-14	4
Bahama Islands	0	(s)	-3	(s)	-7	22	0	(s)	(s)	12	12
Belgium & Luxembourg	0	(s)	5	0	(s)	2	-20	(s)	7	-6	-6
Benin	2	0	0	0	0	0	0	0	0	0	2
Brazil	0	-1	29	(s)	-11	1	-2	(s)	2	17	17
Brunei	(s)	0	0	0	0	0	0	(s)	0	(s)	(s)
Cameroon	7	0	0	0	0	2	(s)	(s)	(s)	2	10
Canada	898	88	46	-4	49	8	-14	-2	40	211	1,109
China, People's Republic of	50	0	-1	-2	-24	-1	(s)	-1	(s)	-29	22
China, Taiwan	0	-2	-5	0	-22	-7	(s)	-1	-3	-39	-39
Colombia	141	-2	0	0	(s)	29	-1	(s)	(s)	27	168
Congo	53	0	0	0	0	6	0	(s)	0	6	59
Egypt	68	0	0	0	(s)	1	(s)	(s)	5	6	73
France	0	(s)	10	0	-4	0	-4	(s)	9	11	11
Greece	0	(s)	0	0	(s)	0	-5	(s)	1	-4	-4
Guatemala	0	-1	-4	(s)	-4	-2	0	(s)	(s)	-11	-6
India	0	0	0	-2	-4	-1	(s)	(s)	4	-3	-3
Italy	0	(s)	13	0	(s)	-4	-26	(s)	15	-2	-2
Jamaica	0	(s)	(s)	(s)	-2	-17	(s)	(s)	(s)	-21	-21
Japan	0	(s)	-1	-30	-10	-6	-57	-1	-1	-105	-105
Korea, Republic of	-1	(s)	-1	-7	-48	-8	-5	(s)	28	-40	-41
Malaysia	10	(s)	1	0	(s)	0	(s)	(s)	(s)	1	11
Mexico	863	-7	-58	4	-1	-9	-2	-4	24	-54	809
Netherlands	0	(s)	2	-1	-24	-1	-19	(s)	7	-35	-35
Netherlands Antilles	0	(s)	-1	5	-7	30	0	-1	42	68	68
Norway	137	(s)	1	0	0	1	(s)	(s)	4	5	142
Oman	28	0	0	0	0	0	0	(s)	13	13	41
Panama	0	-1	(s)	(s)	-7	-4	(s)	(s)	(s)	-11	-11
Peru	0	(s)	(s)	(s)	-6	8	(s)	(s)	(s)	1	1
Puerto Rico	(s)	(s)	-3	3	-7	(s)	0	4	18	16	16
Romania	0	0	0	0	(s)	0	0	(s)	0	(s)	(s)
Russia	36	0	0	0	(s)	(s)	(s)	(s)	18	18	55
Spain	0	(s)	10	(s)	-7	1	-23	(s)	26	7	7
Sweden	0	(s)	(s)	0	(s)	0	-1	(s)	3	2	2
Syria	17	0	0	0	(s)	0	0	(s)	7	7	24
Thailand	6	(s)	0	0	(s)	-1	(s)	(s)	(s)	-2	4
Trinidad and Tobago	55	(s)	2	1	1	14	0	(s)	1	19	74
Turkey	0	0	0	0	(s)	6	-30	(s)	8	-16	-16
United Kingdom	312	2	6	(s)	(s)	1	-9	(s)	27	28	340
Virgin Islands	-95	(s)	50	31	56	55	0	(s)	62	254	159
Yemen	6	0	0	0	0	5	0	0	3	8	14
Zaire	19	0	0	0	0	(s)	0	(s)	0	(s)	19
Other	16	-3	-7	-4	-60	-3	-19	-3	39	-58	-42
Total	6,669	117	143	41	-90	250	-257	-12	738	929	7,618
Persian Gulf^c	1,637	27	16	3	(s)	2	-3	(s)	92	137	1,774

^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 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 30. Stocks of Crude Oil and Petroleum Products by PAD District, 1993
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Crude Oil	14,320	76,806	752,228	11,136	67,975	922,465
Refinery	13,354	14,196	43,574	1,961	20,176	93,261
Tank Farms and Pipelines	959	61,439	106,371	8,330	32,376	209,475
Leases	7	1,171	15,203	645	1,052	18,278
Strategic Petroleum Reserve	0	0	587,080	0	0	587,080
Alaskan In Transit	0	0	0	0	14,371	14,371
Total Stocks, All Oils (excluding Crude Oil)	179,216	166,515	263,001	16,841	99,181	724,754
Refinery	56,858	58,984	130,513	11,690	65,577	323,622
Bulk Terminal	93,073	67,360	88,923	2,610	28,315	278,301
Pipeline	29,227	36,878	40,345	2,298	7,154	115,902
Natural Gas Processing Plant	58	3,273	3,220	243	135	6,929
Pentanes Plus	288	3,970	6,074	183	66	10,581
Refinery	270	708	350	6	8	1,342
Bulk Terminal	11	2,151	3,936	4	47	6,149
Pipeline	0	668	1,135	75	0	1,878
Natural Gas Processing Plant	7	443	653	98	11	1,212
Liquefied Petroleum Gases	5,204	32,337	64,218	1,176	3,549	106,484
Refinery	1,637	3,775	8,426	435	1,252	15,525
Bulk Terminal	1,775	18,050	45,988	140	2,173	68,126
Pipeline	1,741	7,682	7,237	456	0	17,116
Natural Gas Processing Plant	51	2,830	2,567	145	124	5,717
Ethane/Ethylene	0	4,384	15,670	176	0	20,230
Refinery	0	3	946	0	0	949
Bulk Terminal	0	2,010	11,477	0	0	13,487
Pipeline	0	1,621	2,736	174	0	4,531
Natural Gas Processing Plant	0	750	511	2	0	1,263
Propane/Propylene	3,650	19,045	26,950	480	1,060	51,205
Refinery	542	1,663	2,314	93	130	4,942
Bulk Terminal	1,503	11,525	20,352	136	889	34,405
Pipeline	1,562	4,355	3,133	168	0	9,216
Natural Gas Processing Plant	43	1,302	1,151	85	61	2,642
Normal Butane/Butylene	1,444	6,432	14,808	311	1,817	24,812
Refinery	988	1,387	3,407	216	733	6,731
Bulk Terminal	272	3,254	9,920	4	1,077	14,527
Pipeline	179	1,215	891	53	0	2,338
Natural Gas Processing Plant	5	576	590	38	7	1,216
Isobutane/Isobutylene	110	2,478	6,790	209	652	10,237
Refinery	107	522	1,759	126	389	2,903
Bulk Terminal	0	1,261	4,239	0	207	5,707
Pipeline	0	491	477	63	0	1,031
Natural Gas Processing Plant	3	202	315	20	56	596
Other Hydrocarbons/Hydrogen/Oxygenates	1,560	1,025	6,013	245	3,630	12,673
Refinery	1,152	324	2,079	164	2,296	6,035
Bulk Terminal	408	701	3,557	61	738	5,485
Pipeline	0	0	377	0	796	1,173
Other Hydrocarbons/Hydrogen	5	27	1	0	7	40
Refinery	5	27	1	0	7	40
Fuel Ethanol	162	779	554	97	523	2,114
Refinery	W	118	W	W	W	337
Bulk Terminal	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	W	W	W	W	W	W
Pipeline	W	W	W	W	W	W
Methanol	W	W	W	W	W	316
Refinery	W	W	W	W	W	316

See footnotes at end of table.

Table 30. Stocks of Crude Oil and Petroleum Products by PAD District, 1993 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
MTBE	1,348	W	5,022	W	3,301	10,036
Refinery	1,053	W	1,740	W	2,239	5,314
Bulk Terminal	W	W	2,905	W	275	3,557
Pipeline	W	W	377	W	787	1,164
Other Oxygenates^b	W	W	W	W	W	W
Refinery	W	W	W	W	W	W
Bulk Terminal	W	W	W	W	W	W
Pipeline	W	W	W	W	W	W
Unfinished Oils	8,937	14,124	41,449	2,727	21,183	88,420
Refinery						
Naphtha and Lighter	2,048	3,553	10,530	447	3,732	20,310
Kerosene and Light Gas Oils	1,949	1,922	6,551	413	3,818	14,453
Heavy Gas Oils	4,040	5,199	18,308	1,514	10,649	37,710
Residuum	900	3,450	8,060	353	3,184	15,947
Motor Gasoline Blending Components	5,575	7,262	15,703	2,082	8,784	39,406
Refinery	5,357	6,555	14,468	2,082	7,728	36,190
Bulk Terminal	218	338	933	0	23	1,512
Pipeline	0	369	302	0	1,033	1,704
Aviation Gasoline Blending Components	42	0	27	0	9	78
Refinery	42	0	27	0	9	78
Finished Motor Gasoline	59,378	48,170	49,481	4,532	25,490	187,051
Refinery	15,093	10,935	20,445	1,999	11,353	59,825
Bulk Terminal	30,189	22,415	10,556	1,501	11,649	76,320
Pipeline	14,086	14,820	18,480	1,032	2,488	50,906
Reformulated	0	0	0	0	0	0
Refinery	0	0	0	0	0	0
Bulk Terminal	0	0	0	0	0	0
Pipeline	0	0	0	0	0	0
Oxygenated	15,014	1,113	6,642	655	10,124	33,548
Refinery	3,283	897	2,549	215	5,397	12,141
Bulk Terminal	6,835	289	663	341	4,102	12,230
Pipeline	4,896	127	3,430	99	625	9,177
Other	44,364	47,057	42,639	3,877	15,366	153,503
Refinery	11,810	10,238	17,896	1,784	5,956	47,684
Bulk Terminal	23,364	22,126	9,893	1,160	7,547	64,090
Pipeline	9,190	14,693	15,050	933	1,863	41,729
Finished Aviation Gasoline	613	433	323	47	395	1,811
Refinery	64	122	269	40	105	600
Bulk Terminal	547	263	46	7	290	1,153
Pipeline	2	48	8	0	0	58
Naphtha-Type Jet Fuel	271	773	755	251	298	2,348
Refinery	119	362	595	167	52	1,295
Bulk Terminal	60	203	0	0	1	264
Pipeline	92	208	160	84	245	789
Kerosene-Type Jet Fuel	8,651	7,199	13,083	462	8,649	38,044
Refinery	1,258	2,127	5,490	207	4,177	13,259
Bulk Terminal	3,255	1,999	2,882	125	3,411	11,672
Pipeline	4,138	3,073	4,711	130	1,061	13,113

See footnotes at end of table.

Table 30. Stocks of Crude Oil and Petroleum Products by PAD District, 1993 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Kerosene	1,640	1,072	1,179	60	116	4,069
Refinery	73	483	827	25	96	1,504
Bulk Terminal	1,192	349	60	13	16	1,630
Pipeline	375	240	292	22	6	935
Distillate Fuel Oil	62,539	34,360	29,017	2,794	12,157	140,867
Refinery	14,568	9,556	14,704	1,559	8,144	48,531
Bulk Terminal	39,178	15,060	6,744	745	4,673	66,400
Pipeline	8,793	9,744	7,569	490	1,340	27,936
0.05 Percent Sulfur and Under	19,928	21,879	12,181	1,731	7,971	63,690
Refinery	2,698	3,889	4,497	838	3,808	15,730
Bulk Terminal	13,015	10,581	3,717	487	3,354	31,184
Pipeline	4,215	7,409	3,967	396	809	16,796
Greater than 0.05 Percent Sulfur	42,611	12,481	16,836	1,063	4,186	77,177
Refinery	11,870	5,667	10,207	721	2,336	30,801
Bulk Terminal	26,163	4,479	3,027	248	1,319	35,236
Pipeline	4,578	2,335	3,602	94	531	11,140
Residual Fuel Oil^a	16,288	2,979	17,610	402	6,915	44,194
Refinery	4,239	1,961	6,525	402	4,474	17,601
Bulk Terminal	12,049	1,018	11,085	0	2,256	26,408
Pipeline	0	0	0	0	185	185
Less than 0.31% Sulfur	5,724	12	727	90	398	6,951
Refinery	2,022	12	639	90	368	3,131
Bulk Terminal	3,702	0	88	0	30	3,820
0.31 to 1.00% Sulfur	4,495	735	6,926	129	1,064	13,349
Refinery	1,612	358	994	129	709	3,802
Bulk Terminal	2,883	377	5,932	0	355	9,547
Greater than 1.00% Sulfur	6,069	2,232	9,957	183	5,268	23,709
Refinery	605	1,591	4,892	183	3,397	10,668
Bulk Terminal	5,464	641	5,065	0	1,871	13,041
Naphtha for Petrochemical Feedstock Use	272	174	1,364	0	55	1,865
Refinery	272	174	1,364	0	55	1,865
Other Oils for Petrochemical Feedstock Use	3	2	1,193	2	175	1,375
Refinery	3	2	1,193	2	175	1,375
Special Naphthas	222	351	1,694	1	48	2,516
Refinery	35	335	1,514	1	48	1,933
Bulk Terminal	187	16	380	0	0	583
Lubricants	2,695	1,636	5,835	0	1,696	11,862
Refinery	805	711	4,730	0	987	7,233
Bulk Terminal	1,890	925	1,105	0	709	4,629
Waxes	163	134	449	30	78	854
Refinery	163	134	449	30	78	854
Petroleum Coke	911	1,509	2,191	257	3,643	8,511
Refinery	911	1,509	2,191	257	3,643	8,511
Asphalt and Road Oil	3,504	8,733	3,615	1,566	1,774	19,192
Refinery	1,783	4,943	3,083	1,553	1,627	12,989
Bulk Terminal	1,721	3,790	532	13	147	6,203
Miscellaneous Products	460	272	1,528	24	269	2,553
Refinery	77	144	335	14	87	657
Bulk Terminal	383	102	1,119	1	182	1,787
Pipeline	0	26	74	9	0	109
Total Stocks, All Oils	193,536	243,321	1,015,229	27,977	167,156	1,647,219

^a Includes stocks held by producers.

^b 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).

^c 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 end of December.

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 31. Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by PAD District and State, 1993
(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	45,292	0	10,118	35,174	1,265	53,746	15,713	38,033	16,288	2,088
Connecticut	1,880	0	458	1,424	8	4,873	533	4,340	124	W
Delaware, D.C., Maryland	2,363	0	1,295	1,068	50	4,213	660	3,553	2,357	W
Florida	4,737	0	0	4,737	73	1,873	897	976	1,335	103
Georgia	2,202	0	0	2,202	28	1,265	891	374	108	W
Maine, New Hampshire, Vermont	649	0	0	649	168	2,528	859	1,669	568	W
Massachusetts	1,248	0	0	1,248	109	1,984	651	1,313	661	W
New Jersey	13,603	0	4,270	9,333	113	14,685	3,133	11,552	5,131	W
New York	4,549	0	1,036	3,513	185	8,709	1,791	6,918	4,356	W
North Carolina	2,725	0	836	2,089	90	1,888	1,198	690	184	W
Pennsylvania	5,667	0	1,327	4,340	234	6,765	2,440	4,325	743	W
Rhode Island	582	0	0	582	W	1,192	261	931	W	W
South Carolina	1,245	0	0	1,245	54	855	585	270	W	W
Virginia	3,691	0	1,098	2,593	65	2,767	1,657	1,110	308	W
West Virginia	151	0	0	151	W	169	157	12	W	W
PAD District II	33,350	0	986	32,364	832	24,616	14,470	10,146	2,979	14,690
Illinois	5,943	0	127	5,816	184	4,987	2,478	2,511	1,205	1,021
Indiana	4,561	0	104	4,457	62	3,435	1,705	1,730	193	W
Iowa	1,199	0	0	1,199	W	1,355	1,149	206	W	W
Kansas, Nebraska	2,938	0	0	2,938	17	2,041	1,388	653	17	9,308
Kentucky	1,473	0	205	1,268	23	1,116	484	632	W	W
Michigan	2,979	0	47	2,932	105	1,688	1,167	521	67	1,809
Minnesota	2,127	0	196	1,931	W	1,422	1,116	306	319	W
Missouri	1,184	0	0	1,184	W	764	657	107	W	W
North Dakota, South Dakota	933	0	1	932	W	618	255	361	W	W
Ohio	4,259	0	57	4,202	199	2,556	1,463	1,093	230	W
Oklahoma	1,864	0	157	1,707	W	1,525	557	968	316	1,003
Tennessee	2,267	0	92	2,175	19	1,378	1,042	336	339	W
Wisconsin	1,623	0	0	1,623	W	1,733	1,011	722	37	W
PAD District III	31,001	0	3,212	27,789	887	21,448	8,214	13,234	17,610	2,817
Alabama	1,451	0	31	1,420	20	775	521	254	278	126
Arkansas	786	0	0	786	W	529	299	230	W	W
Louisiana	5,955	0	385	5,570	206	5,384	1,550	3,834	8,288	2,648
Mississippi	2,666	0	38	2,628	7	1,663	646	1,017	W	2,179
New Mexico	421	0	0	421	W	250	175	75	16	W
Texas	19,722	0	2,758	16,964	641	12,847	5,023	7,824	8,763	18,748
PAD District IV	3,500	0	556	2,944	38	2,304	1,335	969	402	314
Colorado	1,084	0	556	528	W	506	178	328	W	W
Idaho	236	0	0	236	W	159	116	43	W	W
Montana	1,147	0	0	1,147	W	544	338	206	78	24
Utah	613	0	0	613	W	606	349	257	171	170
Wyoming	420	0	0	420	W	489	354	135	W	53
PAD District V	23,002	0	9,499	13,503	112	10,817	7,162	3,655	6,730	1,080
Alaska	591	0	0	591	W	1,055	400	655	W	W
Arizona	1,022	0	156	866	W	176	143	33	W	W
California	14,966	0	9,195	5,771	97	6,337	4,892	1,445	3,734	182
Hawaii	688	0	0	688	W	564	132	432	W	W
Nevada	306	0	148	158	W	174	138	36	W	W
Oregon	943	0	0	943	W	587	404	183	156	W
Washington	4,486	0	0	4,486	W	1,924	1,053	871	1,685	48
U.S. Total	136,145	0	24,371	111,774	3,134	112,931	46,694	66,037	44,009	41,989

W = Withheld to avoid disclosure of individual company data.

Notes: • Stocks are reported as of the end of December. • 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 32. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, 1993
(Thousand Barrels)

Commodity	From I to			From II to				From III to	
	II	III	V	I	III	IV	V	I	II
Crude Oil	1,101	0	0	1,380	16,474	4,399	0	0	673,486
Petroleum Products	94,528	1,964	0	45,240	63,180	36,150	89	988,647	332,584
Pentanes Plus	0	0	0	0	2,491	1	0	0	10,446
Liquefied Petroleum Gases	0	0	0	12,755	36,001	1,094	0	26,957	61,757
Unfinished Oils	327	0	0	210	425	0	81	3,640	1,177
Motor Gasoline Blending Components	192	388	0	224	223	0	0	2,008	9,693
Finished Motor Gasoline	63,552	161	0	19,421	12,395	19,907	0	587,088	154,954
Reformulated	0	0	0	0	0	0	0	0	0
Oxygenated	128	0	0	1,315	0	99	0	67,408	107
Other	63,424	161	0	18,106	12,395	19,808	0	519,680	154,847
Finished Aviation Gasoline	91	0	0	0	0	131	0	1,297	996
Jet Fuel	3,661	0	0	2,031	3,492	8,802	0	121,953	37,751
Naphtha-Type	0	0	0	0	743	0	0	1,990	1,432
Kerosene-Type	3,661	0	0	2,031	2,749	8,802	0	119,963	36,319
Kerosene	579	0	0	363	0	0	0	6,896	1,215
Distillate Fuel Oil	25,531	933	0	7,441	3,203	6,215	0	226,618	46,531
0.05 percent sulfur and under	6,058	0	0	2,304	894	4,829	0	32,722	18,619
Greater than 0.05 percent sulfur	19,473	933	0	5,137	2,309	1,386	0	193,896	27,912
Residual Fuel Oil	0	0	0	422	4,565	0	0	2,662	475
Petrochemical Feedstocks ^a	538	0	0	0	0	0	0	10	20
Special Naphthas	0	17	0	0	0	0	0	894	1,079
Lubricants	57	465	0	938	230	0	0	5,584	3,383
Waxes	0	0	0	0	0	0	0	26	0
Asphalt and Road Oil	0	0	0	1,435	36	0	0	2,263	2,424
Miscellaneous Products	0	0	0	0	119	0	8	751	683
Total	95,629	1,964	0	46,620	79,654	40,549	89	988,647	1,006,080

Commodity	From III to		From IV to			From V to			
	IV	V	II	III	V	I	II	III	IV
Crude Oil	0	0	29,441	15,149	0	0	0	71,747	0
Petroleum Products	0	21,407	21,398	18,817	12,916	395	0	420	0
Pentanes Plus	0	0	1,614	2,109	0	0	0	0	0
Liquefied Petroleum Gases	0	0	9,454	16,708	0	0	0	0	0
Unfinished Oils	0	593	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	1,049	0	0	0	0	0	0	0
Finished Motor Gasoline	0	12,432	5,774	0	8,582	395	0	0	0
Reformulated	0	0	0	0	0	0	0	0	0
Oxygenated	0	0	0	0	0	0	0	0	0
Other	0	12,432	5,774	0	8,582	395	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	0	2,798	957	0	1,985	0	0	0	0
Naphtha-Type	0	1,034	928	0	884	0	0	0	0
Kerosene-Type	0	1,764	29	0	1,101	0	0	0	0
Kerosene	0	0	196	0	0	0	0	0	0
Distillate Fuel Oil	0	3,633	3,403	0	2,349	0	0	0	0
0.05 percent sulfur and under	0	732	836	0	664	0	0	0	0
Greater than 0.05 percent sulfur	0	2,901	2,567	0	1,685	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	902	0	0	0	0	0	392	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	28	0
Total	0	21,407	50,839	33,966	12,916	395	0	72,167	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 33. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, 1993
(Thousand Barrels)

Commodity	From I to		From II to			From III to	
	II	III	I	III	IV	I	II
Crude Oil	1,076	0	30	16,474	4,399	0	672,479
Petroleum Products	93,155	0	25,753	56,344	36,150	797,440	294,045
Pentanes Plus	0	0	0	2,491	1	0	10,446
Liquefied Petroleum Gases	0	0	12,755	36,001	1,094	24,446	61,675
Motor Gasoline Blending Components	0	0	224	0	0	1,407	7,441
Finished Motor Gasoline	63,403	0	9,431	11,753	19,907	463,924	137,242
Reformulated	0	0	0	0	0	0	0
Oxygenated	0	0	0	0	99	59,239	0
Other	63,403	0	9,431	11,753	19,808	404,685	137,242
Finished Aviation Gasoline	91	0	0	0	131	91	886
Jet Fuel	3,661	0	1,118	3,492	6,802	102,580	35,561
Naphtha-Type	0	0	0	743	0	1,444	1,432
Kerosene-Type	3,661	0	1,118	2,749	8,802	101,136	34,129
Kerosene	572	0	158	0	0	6,780	1,010
Distillate Fuel Oil	25,428	0	2,067	2,488	6,215	198,212	39,628
0.05 percent sulfur and under	6,058	0	887	658	4,829	28,015	17,240
Greater than 0.05 percent sulfur	19,370	0	1,180	1,830	1,386	170,197	22,388
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	119	0	0	156
Total	94,231	0	25,783	72,818	40,549	797,440	966,524

Commodity	From III to		From IV to			From V to	
	IV	V	II	III	V	III	IV
Crude Oil	0	0	29,441	15,149	0	45,492	0
Petroleum Products	0	18,581	21,398	18,617	12,916	0	0
Pentanes Plus	0	0	1,614	2,109	0	0	0
Liquefied Petroleum Gases	0	0	9,454	16,708	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	0	12,150	5,774	0	8,582	0	0
Reformulated	0	0	0	0	0	0	0
Oxygenated	0	0	0	0	0	0	0
Other	0	12,150	5,774	0	8,582	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0
Jet Fuel	0	2,798	957	0	1,985	0	0
Naphtha-Type	0	1,034	928	0	884	0	0
Kerosene-Type	0	1,764	29	0	1,101	0	0
Kerosene	0	0	196	0	0	0	0
Distillate Fuel Oil	0	3,633	3,403	0	2,349	0	0
0.05 percent sulfur and under	0	732	836	0	664	0	0
Greater than 0.05 percent sulfur	0	2,901	2,567	0	1,685	0	0
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	0	18,581	50,839	33,966	12,916	45,492	0

Sources: Energy Information Administration (EIA) Forms EIA-812, "Monthly Product Pipeline Report," and EIA-813, Monthly Crude Oil Report."

Table 34. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, 1993
(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	I	II	V	I	II	V	I	New England
Crude Oil	25	0	0	1,350	0	0	0	0
Petroleum Products	1,373	1,964	0	19,487	6,836	89	191,207	5,433
Liquefied Petroleum Gases	0	0	0	0	0	0	2,511	0
Unfinished Oils	327	0	0	210	425	81	3,640	0
Motor Gasoline Blending Components	192	388	0	0	223	0	601	0
Finished Motor Gasoline	149	181	0	9,990	642	0	123,164	1,853
Reformulated	0	0	0	0	0	0	0	0
Oxygenated	128	0	0	1,315	0	0	8,169	755
Other	21	181	0	8,675	642	0	114,995	1,098
Finished Aviation Gasoline	0	0	0	0	0	0	1,206	74
Jet Fuel	0	0	0	913	0	0	19,373	330
Naphtha-Type	0	0	0	0	0	0	546	0
Kerosene-Type	0	0	0	913	0	0	18,827	330
Kerosene	7	0	0	206	0	0	116	68
Distillate Fuel Oil	103	933	0	5,374	715	0	28,406	2,880
0.05 percent sulfur and under	0	0	0	1,417	236	0	4,707	0
Greater than 0.05 percent sulfur	103	933	0	3,957	479	0	23,699	2,880
Residual Fuel Oil	0	0	0	422	4,565	0	2,662	228
Less than 0.31 percent sulfur	0	0	0	0	0	0	1,425	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	0	0	422	4,565	0	1,237	228
Petrochemical Feedstocks ^a	538	0	0	0	0	0	10	0
Special Naphthas	0	17	0	0	0	0	894	0
Lubricants	57	465	0	938	230	0	5,584	0
Waxes	0	0	0	0	0	0	26	0
Asphalt and Road Oil	0	0	0	1,435	36	0	2,263	0
Miscellaneous Products	0	0	0	0	0	8	751	0
Total	1,398	1,964	0	20,837	6,836	89	191,207	5,433

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	0	0	1,017	0	0	0	26,255
Petroleum Products	11,509	174,265	38,539	2,826	395	0	420
Liquefied Petroleum Gases	0	2,511	82	0	0	0	0
Unfinished Oils	570	3,070	1,177	593	0	0	0
Motor Gasoline Blending Components	432	189	2,252	1,049	0	0	0
Finished Motor Gasoline	3,028	118,283	17,712	282	395	0	0
Reformulated	0	0	0	0	0	0	0
Oxygenated	572	6,842	107	0	0	0	0
Other	2,456	111,441	17,605	282	395	0	0
Finished Aviation Gasoline	227	905	110	0	0	0	0
Jet Fuel	551	18,492	2,190	0	0	0	0
Naphtha-Type	372	174	0	0	0	0	0
Kerosene-Type	179	18,318	2,190	0	0	0	0
Kerosene	0	48	206	0	0	0	0
Distillate Fuel Oil	1,872	23,654	6,903	0	0	0	0
0.05 percent sulfur and under	509	4,198	1,379	0	0	0	0
Greater than 0.05 percent sulfur	1,363	19,456	5,524	0	0	0	0
Residual Fuel Oil	185	2,249	475	0	0	0	0
Less than 0.31 percent sulfur	0	1,425	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	32	0	0	0	0
Greater than 1.00 percent sulfur	185	824	443	0	0	0	0
Petrochemical Feedstocks ^a	0	10	20	0	0	0	0
Special Naphthas	0	894	1,079	0	0	0	0
Lubricants	4,391	1,193	3,383	902	0	0	392
Waxes	26	0	0	0	0	0	0
Asphalt and Road Oil	30	2,233	2,424	0	0	0	0
Miscellaneous Products	197	554	527	0	0	0	28
Total	11,509	174,265	39,556	2,826	395	0	26,675

^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" and EIA-817, "Monthly Tanker and Barge Movement Report."

**Table 35. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, 1993
(Thousand Barrels)**

Commodity	PAD District I			PAD District II		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	1,380	1,101	279	704,038	22,253	681,785
Petroleum Products	1,034,282	98,492	937,790	448,510	144,659	303,851
Pentanes Plus	0	0	0	12,080	2,492	9,588
Liquefied Petroleum Gases	39,712	0	39,712	71,211	49,850	21,361
Ethane/Ethylene	0	0	0	8,449	19,014	-10,565
Propane/Propylene	37,679	0	37,679	45,767	22,155	23,612
Normal Butane/Butylene	1,650	0	1,650	6,673	6,596	2,077
Isobutane/Isobutylene	383	0	383	8,322	2,085	6,237
Unfinished Oils	3,850	327	3,523	1,504	716	788
Motor Gasoline Blending Components	2,232	580	1,652	9,885	447	9,438
Finished Motor Gasoline	606,904	63,713	543,191	224,280	51,723	172,557
Reformulated	0	0	0	0	0	0
Oxygenated	66,723	128	66,595	235	1,414	-1,179
Other	538,181	63,585	474,596	224,045	50,309	173,736
Finished Aviation Gasoline	1,297	91	1,206	1,087	131	956
Jet Fuel	123,984	3,661	120,323	42,369	14,325	28,044
Naphtha-Type	1,990	0	1,990	2,360	743	1,617
Kerosene-Type	121,994	3,661	118,333	40,009	13,582	26,427
Kerosene	7,259	579	6,680	1,990	363	1,627
Distillate Fuel Oil	234,059	26,484	207,575	75,465	16,859	58,606
0.05 percent sulfur and under	35,026	8,058	26,968	25,513	8,027	17,486
Greater than 0.05 percent sulfur	199,033	20,406	178,627	49,952	8,832	41,120
Residual Fuel Oil	3,084	0	3,084	475	4,987	-4,512
Petrochemical Feedstocks ^a	10	538	-528	558	0	558
Special Naphthas	894	17	877	1,079	0	1,079
Lubricants	6,522	522	6,000	3,440	1,168	2,272
Waxes	26	0	26	0	0	0
Asphalt and Road Oil	3,898	0	3,898	2,424	1,471	953
Miscellaneous Products	751	0	751	683	127	556
Total	1,035,662	97,593	938,069	1,152,548	166,912	985,636

Commodity	PAD District III			PAD District IV			PAD District V		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	103,370	673,496	-570,126	4,399	44,590	-40,191	0	71,747	-71,747
Petroleum Products	84,381	1,342,638	-1,258,257	36,150	53,131	-16,981	34,412	815	33,597
Pentanes Plus	4,600	10,446	-5,846	1	3,723	-3,722	0	0	0
Liquefied Petroleum Gases	52,709	88,714	-36,005	1,094	26,162	-25,068	0	0	0
Ethane/Ethylene	27,268	5,318	21,950	0	11,385	-11,385	0	0	0
Propane/Propylene	15,135	68,931	-53,796	1,075	8,570	-7,495	0	0	0
Normal Butane/Butylene	7,033	6,958	75	19	3,821	-3,802	0	0	0
Isobutane/Isobutylene	3,273	7,507	-4,234	0	2,386	-2,386	0	0	0
Unfinished Oils	425	5,410	-4,985	0	0	0	674	0	674
Motor Gasoline Blending Components	611	12,750	-12,139	0	0	0	1,049	0	1,049
Finished Motor Gasoline	12,556	754,474	-741,918	19,907	14,356	5,551	21,014	395	20,619
Reformulated	0	0	0	0	0	0	0	0	0
Oxygenated	0	67,515	-67,515	99	0	99	0	0	0
Other	12,556	686,959	-674,403	19,808	14,356	5,452	21,014	395	20,619
Finished Aviation Gasoline	0	2,293	-2,293	131	0	131	0	0	0
Jet Fuel	3,492	162,502	-159,010	8,802	2,942	5,860	4,783	0	4,783
Naphtha-Type	743	4,456	-3,713	0	1,812	-1,812	1,918	0	1,918
Kerosene-Type	2,749	158,046	-155,297	8,802	1,130	7,672	2,865	0	2,865
Kerosene	0	8,111	-8,111	0	198	-198	0	0	0
Distillate Fuel Oil	4,136	276,782	-272,646	6,215	5,752	463	5,982	0	5,982
0.05 percent sulfur and under	894	52,073	-51,179	4,829	1,500	3,329	1,396	0	1,396
Greater than 0.05 percent sulfur	3,242	224,709	-221,467	1,386	4,252	-2,866	4,586	0	4,586
Residual Fuel Oil	4,565	3,137	1,428	0	0	0	0	0	0
Petrochemical Feedstocks ^a	0	30	-30	0	0	0	0	0	0
Special Naphthas	17	1,973	-1,956	0	0	0	0	0	0
Lubricants	1,087	9,869	-8,782	0	0	0	902	392	510
Waxes	0	26	-26	0	0	0	0	0	0
Asphalt and Road Oil	36	4,687	-4,651	0	0	0	0	0	0
Miscellaneous Products	147	1,434	-1,287	0	0	0	8	28	-20
Total	187,751	2,016,134	-1,828,383	40,549	97,721	-57,172	34,412	72,562	-38,150

^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."

Refinery Capacity

As part of the refining process, a catalytic cracking unit is used to increase the yield of gasoline from crude oil.

Changes to the 1994 Refinery Capacity Tables

Several enhancements have been made to the 1994 Refinery Capacity tables to fulfill customer requests for additional data and to improve the usefulness of the tables. These enhancements focus primarily on eliminating excessive footnotes and displaying more detailed information on downstream processing units. Detailed changes are listed below.

Table 38 *(Capacity of Operable Petroleum Refineries by State)*

A separate column for charge capacity for each type of downstream unit is now displayed. To accommodate this expansion, production capacity has been removed and a separate table created (Table 39).

Table 39 *(Production Capacity of Operable Petroleum Refineries by State)*

This information was formerly included in Table 38. To provide more detailed information, this data is now displayed as a separate table.

Table 40 *(Refiners' Operable Atmospheric Crude Oil Distillation Capacity)*

Formerly Table 39.

Table 41 *(Operable Crude and Downstream Charge Capacity of Petroleum Refineries)*

Formerly Table 40.

Table 42 *(Operable Production Capacity of Petroleum Refineries)*

Formerly Table 41.

Table 43 *(Working Storage Capacity at Refineries and Gasoline Blending Plants)*

Formerly Table 42.

This table has been redesigned to display data on a PAD District basis. State information is no longer displayed.

Table 44 *(Shell Storage Capacity at Refineries and Gasoline Blending Plants)*

Formerly Table 43.

This table has been redesigned to display data on a PAD District basis. State information is no longer displayed.

Table 45 *(Capacity, Fresh Feed Input and Utilization Rates of Selected Downstream Units at U.S. Refineries)*

New table added. Data are displayed for the most recent eight years.

Table 46 *(Refinery Receipts of Crude Oil by Method of Transportation)*

Formerly Table 44.

Table 47 *(Fuels Consumed at Refineries by PAD District)*

Formerly Table 45.

Table 48 *(Reactivated and Shutdown Refineries During 1993)*

Formerly Table 46.

Table 49 *(Refinery Sales January 1993 through February 1994)*

Formerly Table 47.

Table 36. Number and Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 1994

PAD District and State	Number of Operable Refineries			Atmospheric Crude Oil Distillation Capacity					
				Barrels per Calendar Day			Barrels per Stream Day		
	Total	Operating	Idle ^a	Total	Operating	Idle	Total	Operating	Idle
PAD District I	10	10	0	1,522,740	1,522,740	0	1,518,500	1,518,500	0
Delaware	1	1	0	140,000	140,000	0	152,000	152,000	0
Georgia	2	1	1	33,540	5,540	28,000	42,000	10,000	32,000
New Jersey	6	4	2	550,000	430,000	120,000	573,000	446,000	127,000
Pennsylvania	8	8	0	734,700	654,700	80,000	780,000	698,800	81,200
Virginia	1	1	0	53,000	53,000	0	56,000	56,000	0
West Virginia	1	1	0	11,500	11,500	0	12,500	12,500	0
PAD District II	35	34	1	5,513,900	5,305,200	2,700	5,483,320	5,473,020	9,500
Illinois	7	7	0	955,900	955,900	0	1,028,000	1,028,000	0
Indiana	3	2	1	429,900	421,200	8,700	442,100	432,600	9,500
Kansas	5	5	0	273,300	273,300	0	288,000	288,000	0
Kentucky	2	2	0	218,900	218,900	0	226,300	226,300	0
Michigan	2	2	0	115,600	115,600	0	123,000	123,000	0
Minnesota	2	2	0	287,100	287,100	0	299,220	299,220	0
North Dakota	1	1	0	58,000	58,000	0	60,000	60,000	0
Ohio	4	4	0	462,100	462,100	0	482,000	482,000	0
Oklahoma	7	7	0	403,900	403,900	0	421,700	421,700	0
Tennessee	1	1	0	76,000	76,000	0	78,000	78,000	0
Wisconsin	1	1	0	33,200	33,200	0	35,000	35,000	0
PAD District III	43	44	1	6,801,000	6,774,000	27,000	7,188,543	7,188,543	29,000
Alabama	3	3	0	121,000	121,000	0	127,000	127,000	0
Arkansas	3	3	0	62,900	62,900	0	66,000	66,000	0
Louisiana	19	19	0	2,359,750	2,359,750	0	2,465,243	2,465,243	0
Mississippi	6	6	0	371,800	371,800	0	393,900	393,900	0
New Mexico	3	3	0	94,600	94,600	0	99,100	99,100	0
Texas	31	30	1	3,790,950	3,763,950	27,000	4,044,700	4,015,700	29,000
PAD District IV	16	16	0	509,575	509,575	0	535,200	535,200	0
Colorado	2	2	0	85,500	85,500	0	95,000	95,000	0
Montana	4	4	0	139,850	139,850	0	145,700	145,700	0
Utah	6	6	0	154,500	154,500	0	162,500	162,500	0
Wyoming	4	4	0	129,725	129,725	0	135,000	135,000	0
PAD District V	44	41	3	2,899,945	2,821,245	68,700	3,071,319	2,997,865	73,454
Alaska	6	6	0	261,300	261,300	0	275,765	275,765	0
Arizona	1	0	1	3,800	0	3,800	5,700	0	5,700
California	26	25	1	1,932,345	1,882,345	50,000	2,060,600	2,005,600	55,000
Hawaii	2	2	0	146,300	146,300	0	150,000	150,000	0
Nevada	1	1	0	7,000	7,000	0	7,000	7,000	0
Oregon	1	1	0	0	0	0	0	0	0
Washington	7	6	1	536,200	524,300	11,900	572,254	559,500	12,754
U.S. Total	179	171	8	15,034,160	14,704,760	329,400	15,904,282	15,582,125	352,154
Puerto Rico	4	4	0	138,800	138,800	0	144,000	144,000	0
Virgin Islands	1	1	0	545,000	370,000	175,000	595,000	400,000	195,000

See footnotes at end of table.

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Table 36. Number and Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 1994 (Continued)

January 1, 1994 (Continued)								
PAD District and State	Downstream Charge Capacity (Barrels per Stream Day)							Fuels Solvent Deasphalting
	Vacuum Distillation	Thermal Cracking	Catalytic Cracking		Catalytic Hydro- cracking	Catalytic Reforming	Catalytic Hydro- treating	
			Fresh	Recycled				
PAD District I	720,750	51,000	648,500	26,500	90,740	240,320	940,100	0
Delaware	95,000	45,000	70,000	5,000	18,000	52,000	123,000	0
Georgia	0	0	0	0	0	0	0	0
New Jersey	267,500	22,000	290,000	18,000	17,000	77,500	303,500	0
Pennsylvania	323,250	0	261,000	1,800	51,000	196,920	483,100	0
Virginia	29,000	14,000	27,500	2,000	0	10,200	26,500	0
West Virginia	6,000	0	0	0	4,440	3,700	4,000	0
PAD District II	1,413,500	392,800	1,284,500	37,300	161,890	604,900	2,383,600	34,200
Illinois	396,450	128,800	384,000	3,000	66,500	289,700	644,200	0
Indiana	225,200	28,000	165,000	4,200	0	96,500	313,300	0
Kansas	119,150	48,500	98,800	3,000	3,190	79,500	253,300	5,000
Kentucky	92,000	59,500	100,000	0	0	44,500	202,300	10,000
Michigan	38,000	0	47,000	1,000	0	30,000	98,300	0
Minnesota	182,000	61,000	88,000	0	0	66,500	306,800	0
North Dakota	0	0	26,000	3,600	0	12,100	19,100	0
Ohio	181,000	39,000	174,000	17,500	87,200	162,600	196,500	9,000
Oklahoma	147,000	28,000	151,000	5,000	5,000	101,500	280,000	10,200
Tennessee	12,000	0	40,000	0	0	14,000	55,000	0
Wisconsin	20,500	0	11,000	0	0	8,000	14,800	0
PAD District III	3,036,295	984,300	2,820,400	91,700	625,300	1,646,900	5,090,850	143,500
Alabama	41,000	12,000	0	0	0	27,200	71,300	0
Arkansas	24,220	0	19,100	0	0	12,000	31,000	5,500
Louisiana	978,800	458,500	883,300	4,000	175,000	494,900	1,342,400	35,000
Mississippi	268,875	83,500	84,000	7,000	68,000	96,500	264,900	0
New Mexico	26,900	0	34,500	4,500	0	28,300	61,800	0
Texas	1,698,500	440,300	1,609,500	76,200	383,300	1,187,900	3,319,450	103,000
PAD District IV	209,690	59,200	181,800	28,100	6,800	114,280	325,300	9,000
Colorado	35,000	0	27,500	1,000	0	19,500	45,000	0
Montana	58,450	20,700	55,900	6,000	4,400	35,030	135,600	4,000
Utah	49,100	8,500	49,400	8,100	2,400	30,300	66,800	5,000
Wyoming	66,500	10,000	49,000	11,000	0	29,450	77,900	0
PAD District V	1,511,000	559,300	840,200	9,000	490,850	658,200	1,876,500	74,000
Alaska	6,000	0	0	0	9,150	12,000	12,000	0
Arizona	2,000	0	0	0	0	0	0	0
California	1,123,000	509,900	643,500	2,000	409,500	507,800	1,538,500	56,000
Hawaii	74,300	12,400	21,000	0	18,000	13,000	14,000	0
Nevada	6,000	0	0	0	0	0	0	0
Oregon	15,000	0	0	0	0	0	0	0
Washington	284,700	77,000	175,700	7,000	54,000	135,400	312,000	18,000
U.S. Total	6,892,396	2,109,600	5,586,700	190,900	1,376,040	3,874,500	10,616,350	260,700
Puerto Rico	85,000	0	14,200	0	29,200	79,300	111,400	0
Virgin Islands	225,000	85,000	100,000	0	0	115,000	415,000	0

^a Refineries where distillation units were completely idle but not permanently shutdown on January 1, 1994.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 37. Production Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 1994
(Barrels per Stream Day, Except Where Noted)

PAD District and State	Production Capacity							
	Alkylates	Aromatics	Asphalt and Road Oil	Isomers	Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons/day)
PAD District I	92,500	14,500	122,600	40,950	22,906	20,680	118	1,510
Delaware	11,500	0	0	0	0	9,080	40	440
Georgia	0	0	27,000	0	2,000	0	0	0
New Jersey	30,000	3,500	62,600	25,000	9,000	6,500	21	511
Pennsylvania	51,000	11,000	33,000	15,950	6,850	0	56	486
Virginia	0	0	0	0	0	5,100	0	73
West Virginia	0	0	0	0	5,056	0	1	0
PAD District II	266,800	50,200	285,900	167,343	29,400	74,047	315	4,371
Illinois	96,500	8,000	59,000	12,900	7,200	24,619	68	1,675
Indiana	32,700	15,000	66,000	24,200	6,000	10,540	35	410
Kansas	31,000	3,000	6,300	35,000	0	10,673	8	406
Kentucky	12,000	6,000	30,000	16,250	8,500	0	20	400
Michigan	10,400	0	28,000	3,500	0	0	0	178
Minnesota	15,500	0	39,000	23,300	0	16,000	76	700
North Dakota	4,800	0	0	5,100	0	0	0	17
Ohio	25,800	16,000	21,800	10,693	200	6,190	72	295
Oklahoma	34,000	2,200	18,800	30,400	7,500	6,025	36	226
Tennessee	2,500	0	3,500	4,000	0	0	0	50
Wisconsin	1,600	0	13,500	2,000	0	0	0	14
PAD District III	538,950	211,525	208,335	247,625	128,400	190,235	1,278	12,697
Alabama	0	0	20,000	5,000	0	400	6	63
Arkansas	4,900	0	10,550	6,000	4,700	0	3	32
Louisiana	191,200	23,950	68,560	80,100	37,500	83,225	227	3,574
Mississippi	20,200	5,500	42,700	0	6,400	21,600	223	1,270
New Mexico	11,200	0	6,400	4,000	0	0	0	24
Texas	311,450	182,075	60,125	152,525	79,800	85,010	819	7,934
PAD District IV	35,214	0	55,100	16,000	0	5,396	48	515
Colorado	1,200	0	8,500	0	0	0	0	97
Montana	13,780	0	27,900	5,450	0	5,775	43	250
Utah	12,400	0	3,300	8,550	0	2,000	0	29
Wyoming	7,834	0	16,400	4,000	0	621	5	139
PAD District V	152,100	2,100	119,763	24,800	31,800	117,012	1,181	5,281
Alaska	0	2,100	2,500	4,000	0	0	13	15
Arizona	0	0	1,200	0	0	0	0	0
California	118,900	0	72,663	13,600	31,800	94,512	1,057	4,866
Hawaii	5,000	0	15,950	3,200	0	0	21	0
Nevada	0	0	1,000	0	0	0	0	0
Oregon	0	0	11,250	0	0	0	0	0
Washington	28,200	0	15,200	4,000	0	22,500	90	380
U.S. Total	1,095,564	278,325	792,698	498,718	212,506	410,370	2,940	24,554
Puerto Rico	0	15,000	1,000	0	9,500	0	26	69
Virgin Islands	20,000	20,000	0	18,000	0	0	0	600

MMcfd = Million cubic feet per day.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Directory of Operable Petroleum Refineries on Table 38

Refiner	Page(s)	Refiner	Page(s)
Age Refining & Marketing.....	96, 97	Lunday Thagard Co.	86, 87
Amerada Hess Corp.	92, 93, 100, 101	Lyondell Citgo Refining Co. Ltd.	96, 97
Amoco Oil Co.	90, 91, 94, 95, 96, 97, 98, 99	LL&E Petroleum Marketing Inc.	86, 87
Arco Alaska Inc.	86, 87	Mapco Petroleum Inc.	86, 87, 96, 97
Arco Products Co.	86, 87, 98, 99	Marathon Oil Co.	88, 89, 90, 91, 92, 93, 96, 97
Ashland Oil Inc.	90, 91, 92, 93, 94, 95	Mobil Oil Corp.	86, 87, 88, 89, 90, 91, 94, 95, 96, 97
Barrett Refining Corp.	92, 93, 94, 95	Montana Refining Co.	92, 93
Bayway Refining Co.	92, 93	Murphy Oil U.S.A. Inc.	90, 91, 98, 99
Berry Petroleum Co.	86, 87	National Cooperative Refinery Assoc.	90, 91
Big West Oil Co.	98, 99	Navajo Refining Co.	94, 95
Bloomfield Refining Co.	94, 95	Pacific Refining Co.	86, 87
BHP Petroleum Americas Refining Inc.	88, 89	Paramount Petroleum Corp.	86, 87
BP Oil Corp.	90, 91, 94, 95	Peerless Oil & Chemical	100, 101
Calcasieu Refining Co.	90, 91	Pennzoil Producing Co.	90, 91, 94, 95, 98, 99
Calumet Lubricants Co. L.P.	90, 91	Petro Source Refining Partners	92, 93
Canal Refining Co.	90, 91	Petro Star Inc.	86, 87
Caribbean Petroleum Corp.	100, 101	Petroleum Fuel & Terminal.	86, 87
Cenex	92, 93	Petrolite Corp.	96, 97
Chemoil Refining Corp.	86, 87	Petrowax Pennsylvania Inc.	94, 95
Chevron U.S.A. Inc.	86, 87, 88, 89, 92, 93, 94, 95, 96, 97, 98, 99	Phibro Energy U.S.A. Inc.	90, 91, 96, 97
Citgo Asphalt Refining Co.	88, 89, 92, 93	Phillips Puerto Rico Core Inc.	100, 101
Citgo Petroleum Corp.	90, 91	Phillips 66 Co.	96, 97, 98, 99
Citgo Refining & Chemical Inc.	96, 97	Placid Refining Co.	92, 93
Clark Oil & Refining Corp.	88, 89	Powerine Oil Co.	88, 89
Coastal Eagle Point Oil Co.	94, 95	Pride Refining Inc.	96, 97
Coastal Mobile Refining Co.	86, 87	Quaker State Corp.	98, 99
Coastal Refining & Marketing Inc.	90, 91, 96, 97	San Joaquin Refining Co. Inc.	88, 89
Colorado Refining Co.	88, 89	Shell Oil Co.	88, 89, 92, 93, 96, 97, 98, 99
Conoco Inc.	88, 89, 90, 91, 92, 93, 94, 95	Sinclair Oil Corp.	94, 95, 98, 99
Countrymark Cooperative Inc.	90, 91	Somerset Refinery Inc.	90, 91
Cross Oil & Refining Co. Inc.	86, 87	Sound Refining Inc.	98, 99
Crown Central Petroleum Corp.	96, 97	South Hampton Refining Co.	96, 97
Crysen Refining Inc.	98, 99	Southland Oil Co.	92, 93
Cyril Petrochemical Corp.	94, 95	Southwestern Refining Co. Inc.	98, 99
Deer Park Refg Ltd Partnership	96, 97	St. Rose Refining Inc.	92, 93
Diamond Shamrock Refining & Marketing Co.	96, 97	Star Enterprise	88, 89, 92, 93, 98, 99
Dubach Gas Co.	90, 91	Sun Co Inc.	94, 95, 100, 101
Ergon Inc.	92, 93	Sun Refining & Marketing	94, 95
Exxon Co. U.S.A.	86, 87, 90, 91, 92, 93, 96, 97	Sunland Refining Corp.	88, 89
Farmland Industries Inc.	90, 91	Tenby Inc.	88, 89
Fina Oil & Chemical Co.	96, 97	Tesoro Petroleum Corp.	86, 87
Frontier Refining Co.	98, 99	Texaco Refining & Marketing Inc.	88, 89, 90, 91, 98, 99
Giant Refining Co.	94, 95	Tosco Northwest Co.	98, 99
Gold Line Refining Ltd.	90, 91	Tosco Refining Co.	88, 89
Howell Hydrocarbons & Chemical Inc.	96, 97	Total Petroleum Inc.	90, 91, 92, 93, 94, 95
Hunt Refining Co.	86, 87	Trifinery	98, 99
Huntway Refining Co.	86, 87	U.S. Oil & Refining Co.	98, 99
Indian Refining	88, 89	Ultramar Inc.	88, 89
Intermountain Refining Co., Inc.	86, 87	United Refining Co.	96, 97
Kern Oil & Refining Co.	86, 87	Uno-Ven Co.	90, 91
Kerr-McGee Refining Corp.	90, 91, 94, 95	Unocal Corp.	88, 89
Koch Refining Co.	92, 93, 96, 97	Valero Refining Co.	98, 99
La Gloria Oil & Gas Co.	96, 97	Witco Corp.	88, 89, 96, 97
Laketon Refining Corp.	90, 91	Wyoming Refining Co.	100, 101
Lion Oil Co.	86, 87	Young Refining Corp.	88, 89
Little America Refining Co.	98, 99		

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	Other/ Gas Oil
Alabama	121,000	0	127,000	0	41,000	12,000	0	0	0
Coastal Mobile Refining Co.									
Chickasaw	16,500	0	18,000	0	14,000	0	0	0	0
Hunt Refining Co.									
Tuscaloosa	33,500	0	35,000	0	15,000	12,000	0	0	0
LL&E Petroleum Marketing Inc.									
Saraland (Mobile)	71,000	0	74,000	0	12,000	0	0	0	0
Alaska	261,300	0	275,765	0	6,000	0	0	0	0
Arco Alaska Inc.									
Kuparuk	12,000	0	14,500	0	0	0	0	0	0
Prudhoe Bay	15,000	0	16,000	0	0	0	0	0	0
Mapco Petroleum Inc.									
North Pole	128,000	0	130,000	0	6,000	0	0	0	0
Petro Star Inc.									
North Pole	8,000	0	8,225	0	0	0	0	0	0
Valdez	26,300	0	27,040	0	0	0	0	0	0
Tesoro Petroleum Corp.									
Kenai	72,000	0	80,000	0	0	0	0	0	0
Arizona	0	3,800	0	5,700	2,000	0	0	0	0
Intermountain Refining Co., Inc.									
Fredonia	0	3,800	0	5,700	2,000	0	0	0	0
Arkansas	62,900	0	66,000	0	24,220	0	0	0	0
Berry Petroleum Co.									
Stephens	6,700	0	7,000	0	1,800	0	0	0	0
Cross Oil & Refining Co. Inc.									
Smackover	6,200	0	7,000	0	3,920	0	0	0	0
Lion Oil Co.									
El Dorado	50,000	0	52,000	0	18,500	0	0	0	0
California	1,682,346	50,000	2,005,600	55,000	1,123,000	339,900	154,000	16,000	0
Arco Products Co.									
Los Angeles	237,000	0	242,000	0	115,500	0	58,000	0	0
Chemoli Refining Corp.									
Long Beach	18,000	0	20,000	0	0	0	0	0	0
Chevron U.S.A. Inc.									
El Segundo	226,000	0	263,000	0	122,000	66,000	0	0	0
Richmond	235,000	0	248,000	0	115,000	0	0	0	0
Exxon Co. U.S.A.									
Benicia	128,000	0	132,000	0	67,000	0	27,500	0	0
Huntway Refining Co.									
Benicia	8,600	0	9,000	0	8,000	0	0	0	0
Wilmington	5,500	0	6,000	0	5,500	0	0	0	0
Kern Oil & Refining Co.									
Bakersfield	21,400	0	23,000	0	0	0	0	0	0
Lunday Thagard Co.									
South Gate	8,100	0	8,500	0	7,000	0	0	0	0
Mobil Oil Corp.									
Torrance	130,000	0	140,000	0	101,000	48,000	0	0	0
Pacific Refining Co.									
Hercules	0	50,000	0	55,000	25,000	0	0	11,000	0
Paramount Petroleum Corp.									
Paramount	46,500	0	46,500	0	28,000	0	0	0	0
Petroleum Fuel & Terminal* (Formerly Edgington Oil Co.)									
Long Beach	15,000	0	15,000	0	0	0	0	0	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

Location	Downstream Charge Capacity (Continued)									
	Catalytic Cracking		Catalytic Hydrocracking	Catalytic Reforming		Catalytic Hydrotreating				Fuel Solvents Desasphalting
	Fresh	Recycled		Low Pressure	High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/Residual	
Alabama	0	0	0	7,200	20,000	9,800	29,500	32,000	0	0
Chickasaw.....	0	0	0	0	0	0	0	0	0	0
Tuscaloosa.....	0	0	0	7,200	0	9,800	7,500	17,000	0	0
Saraland (Mobile).....	0	0	0	0	20,000	0	22,000	15,000	0	0
Alaska	0	0	9,150	12,000	0	0	12,000	0	0	0
Kuparuk.....	0	0	0	0	0	0	0	0	0	0
Prudhoe Bay.....	0	0	0	0	0	0	0	0	0	0
North Pole.....	0	0	0	0	0	0	0	0	0	0
North Pole.....	0	0	0	0	0	0	0	0	0	0
Valdez.....	0	0	0	0	0	0	0	0	0	0
Kenai.....	0	0	9,150	12,000	0	0	12,000	0	0	0
Arizona	0	0	0	0	0	0	0	0	0	0
Fredonia.....	0	0	0	0	0	0	0	0	0	0
Arkansas	19,100	0	0	12,000	0	0	20,000	7,000	4,000	5,500
Stephens.....	0	0	0	0	0	0	0	0	0	0
Smackover.....	0	0	0	0	0	0	0	0	4,000	0
El Dorado.....	19,100	0	0	12,000	0	0	20,000	7,000	0	5,500
California	643,500	2,000	400,500	148,500	359,300	534,000	422,400	407,000	175,100	56,000
Los Angeles.....	93,000	0	38,000	0	50,000	85,000	39,000	17,000	15,700	0
Long Beach.....	0	0	0	0	0	0	0	0	0	0
El Segundo.....	65,000	0	45,000	27,000	24,000	65,000	56,000	74,000	0	0
Richmond.....	67,000	0	95,000	0	62,000	0	55,000	110,000	81,000	56,000
Benicia.....	67,000	0	32,000	0	32,000	37,000	49,000	25,000	17,000	0
Benicia.....	0	0	0	0	0	0	0	0	0	0
Wilmington.....	0	0	0	0	0	0	0	0	0	0
Bakersfield.....	0	0	0	0	2,800	0	5,000	7,300	0	0
South Gate.....	0	0	0	0	0	0	0	0	0	0
Torrance.....	82,000	0	22,000	0	40,000	93,500	23,000	28,000	0	0
Hercules.....	4,000	0	0	0	11,200	0	11,200	0	0	0
Paramount.....	0	0	0	0	11,500	0	0	7,000	21,500	0
Long Beach.....	0	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	Other/ Gas Oil
Powerine Oil Co. Santa Fe Springs	46,500	0	49,500	0	26,000	10,000	0	0	0
San Joaquin Refining Co. Inc. Bakersfield	24,300	0	27,000	0	12,000	0	0	5,000	0
Shell Oil Co. Martinez	147,100	0	150,100	0	101,900	0	22,500	0	0
Sunland Refining Corp. Bakersfield	12,000	0	17,000	0	0	0	0	0	0
Tenby Inc. Oxnard	4,000	0	5,000	0	0	0	0	0	0
Texaco Refining & Marketing Inc. Bakersfield	54,000	0	58,000	0	34,000	21,000	0	0	0
Wilmington (Los Angeles)	64,000	0	70,000	0	54,000	75,000	0	0	0
Tosco Refining Co. Martinez (Avon)	148,000	0	160,000	0	102,000	0	46,000	0	0
Ultramar Inc. Wilmington	68,000	0	70,000	0	40,000	23,000	0	0	0
Unocal Corp. Arroyo Grande (Santa Maria)....	40,745	0	44,000	0	32,000	23,200	0	0	0
Rodeo (San Francisco)	73,100	0	77,000	0	42,100	23,700	0	0	0
Wilmington (Los Angeles)	121,500	0	125,000	0	75,000	50,000	0	0	0
Witco Corp. Oildale	0	0	0	0	10,000	0	0	0	0
Colorado	85,500	0	95,000	0	35,000	0	0	0	0
Colorado Refining Co. Commerce City	28,000	0	35,000	0	10,000	0	0	0	0
Conoco Inc. Commerce City	57,500	0	60,000	0	25,000	0	0	0	0
Delaware	140,000	0	152,000	0	95,000	0	45,000	0	0
Star Enterprise Delaware City	140,000	0	152,000	0	95,000	0	45,000	0	0
Georgia	5,540	28,000	10,000	32,000	0	0	0	0	0
Citgo Asphalt Refining Co. (Formerly Amoco Oil Co.) Savannah	0	28,000	0	32,000	0	0	0	0	0
Young Refining Corp. Douglasville	5,540	0	10,000	0	0	0	0	0	0
Hawaii	146,300	0	150,000	0	74,300	0	0	12,400	0
BHP Petroleum Americas Refining Inc. (Formerly Hawaiian Independent Refining Inc.) Ewa Beach	93,500	0	95,000	0	43,000	0	0	12,400	0
Chevron U.S.A. Inc. Honolulu	52,800	0	55,000	0	31,300	0	0	0	0
Illinois	965,900	0	1,028,000	0	396,450	105,900	0	18,000	5,000
Clark Oil & Refining Corp. Blue Island	71,900	0	77,000	0	35,950	0	0	0	0
Hartford	57,000	0	60,000	0	30,000	15,000	0	0	0
Indian Refining Lawrenceville	73,000	0	77,000	0	23,000	0	0	0	0
Marathon Oil Co. Robinson	175,000	0	180,000	0	50,000	21,700	0	0	5,000
Mobil Oil Corp. Joliet	180,000	0	190,000	0	92,500	40,000	0	0	0
Shell Oil Co. Wood River	252,000	0	291,000	0	103,000	0	0	18,000	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

Location	Downstream Charge Capacity (Continued)									
	Catalytic Cracking		Catalytic Hydrocracking	Catalytic Reforming		Catalytic Hydrotreating				Fuel Solvents Deasphalting
	Fresh	Recycled		Low Pressure	High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/ Residual	
Santa Fe Springs	12,500	0	8,000	0	9,800	13,500	10,000	10,000	0	0
Bakersfield	0	0	0	0	0	0	0	0	0	0
Martinez	67,000	1,000	32,000	29,000	0	53,000	18,000	34,500	24,500	0
Bakersfield	0	0	0	0	0	0	700	700	0	0
Oxnard	0	0	0	0	0	0	0	0	0	0
Bakersfield	0	0	17,500	18,000	5,000	17,000	14,000	0	0	0
Wilmington (Los Angeles).....	33,000	0	26,000	0	40,000	30,000	22,000	15,000	0	0
Martinez (Avon).....	70,000	1,000	35,000	23,000	20,000	60,000	25,000	30,000	0	0
Wilmington	36,000	0	0	14,500	0	45,000	15,000	0	0	0
Arroyo Grande (Santa Maria)	0	0	0	0	0	0	0	0	0	0
Rodeo (San Francisco)	0	0	34,000	0	34,000	0	23,000	10,000	14,500	0
Wilmington (Los Angeles).....	47,000	0	25,000	37,000	17,000	35,000	56,500	38,500	0	0
Oilfield	0	0	0	0	0	0	0	0	900	0
Colorado	27,500	1,000	0	19,500	0	12,500	19,500	13,000	0	0
Commerce City	8,500	0	0	9,500	0	0	9,500	0	0	0
Commerce City	19,000	1,000	0	10,000	0	12,500	10,000	13,000	0	0
Delaware	70,000	5,000	18,000	41,000	11,000	0	64,000	59,000	0	0
Delaware City	70,000	5,000	18,000	41,000	11,000	0	64,000	59,000	0	0
Georgia	0	0	0	0	0	0	0	0	0	0
Savannah	0	0	0	0	0	0	0	0	0	0
Douglasville	0	0	0	0	0	0	0	0	0	0
Hawaii	21,000	0	18,000	13,000	0	0	10,500	0	3,500	0
Ewa Beach	0	0	18,000	13,000	0	0	10,500	0	0	0
Honolulu	21,000	0	0	0	0	0	0	0	3,500	0
Illinois	364,000	3,000	66,500	163,000	126,700	33,300	307,500	262,000	21,100	0
Blue Island	28,000	0	9,000	12,000	8,000	0	20,000	0	0	0
Hartford	26,000	0	0	0	14,000	0	14,000	13,000	0	0
Lawrenceville	30,000	0	0	0	15,000	0	15,000	20,000	0	0
Robinson	43,000	0	24,000	76,000	0	0	60,000	60,000	14,000	0
Joliet	98,000	0	0	0	43,900	0	81,000	68,000	0	0
Wood River.....	94,000	0	33,500	75,000	16,000	29,000	64,000	77,000	7,100	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	Other/ Gas Oil
Uno-Ven Co. Lemont (Chicago)	147,000	0	153,000	0	62,000	29,100	0	0	0
Indiana	421,200	8,700	432,600	9,500	225,200	28,000	0	0	0
Amoco Oil Co. Whiting.....	400,000	0	410,000	0	212,000	28,000	0	0	0
Countryside Cooperative Inc. Mount Vernon	21,200	0	22,600	0	7,200	0	0	0	0
Laketon Refining Corp. Laketon	0	8,700	0	9,500	6,000	0	0	0	0
Kansas	273,300	0	288,000	0	119,150	48,500	0	0	0
Coastal Refining & Marketing Inc. El Dorado	0	0	0	0	15,000	0	0	0	0
Farmland Industries Inc. Coffeyville	61,700	0	63,000	0	28,000	14,000	0	0	0
National Cooperative Refinery Assoc. McPherson.....	75,600	0	80,000	0	27,000	22,000	0	0	0
Texaco Refining & Marketing Inc. El Dorado	80,000	0	85,000	0	33,000	12,500	0	0	0
Total Petroleum Inc. Arkansas City.....	56,000	0	60,000	0	16,150	0	0	0	0
Kentucky	218,900	0	228,300	0	92,000	0	0	4,500	55,000
Ashland Oil Inc. Catlettsburg.....	213,400	0	220,000	0	92,000	0	0	4,500	55,000
Somerset Refinery Inc. Somerset.....	5,500	0	6,300	0	0	0	0	0	0
Louisiana	2,359,750	0	2,485,243	0	978,800	327,000	0	12,000	119,500
BP Oil Corp. Belle Chasse (Alliance)	223,300	0	230,000	0	89,000	24,000	0	0	0
Calcasieu Refining Co. Lake Charles.....	12,500	0	13,500	0	0	0	0	0	0
Calumet Lubricants Co. L.P. Princeton.....	6,000	0	6,443	0	6,000	0	0	0	0
Canal Refining Co. Church Point	9,500	0	10,000	0	0	0	0	0	0
Citgo Petroleum Corp. Lake Charles.....	305,000	0	320,000	0	83,000	94,000	0	0	0
Conoco Inc. Westlake	182,000	0	189,000	0	87,800	65,000	0	0	11,500
Dubach Gas Co. Lisbon	7,350	0	7,500	0	0	0	0	0	0
Exxon Co. U.S.A. Baton Rouge.....	424,000	0	441,000	0	186,000	90,000	0	0	0
Gold Line Refining Ltd. Lake Charles.....	27,600	0	30,000	0	10,000	0	0	0	0
Kerr-McGee Refining Corp. Cotton Valley.....	7,800	0	8,500	0	0	0	0	0	0
Marathon Oil Co. Garyville	255,000	0	263,000	0	125,000	0	0	0	0
Mobil Oil Corp. Chalmette	170,000	0	177,800	0	92,500	33,000	0	0	0
Murphy Oil U.S.A. Inc. Meraux.....	95,000	0	100,000	0	40,000	0	0	0	0
Pennzoil Producing Co. Shreveport	46,200	0	50,000	0	23,000	0	0	0	0
Phibro Energy U.S.A. Inc. Krotz Springs	60,000	0	61,500	0	22,000	0	0	0	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

Location	Downstream Charge Capacity (Continued)									
	Catalytic Cracking		Catalytic Hydrocracking	Catalytic Reforming		Catalytic Hydrotreating				Fuel Solvents Deasphalting
	Fresh	Recycled		Low Pressure	High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/Residual	
Lemont (Chicago).....	65,000	3,000	0	0	29,800	4,300	53,800	44,000	0	0
Indiana	185,000	4,200	0	6,500	90,000	98,300	125,000	90,000	0	0
Whiting	157,000	4,000	0	0	90,000	98,300	115,000	90,000	0	0
Mount Vernon.....	8,000	200	0	6,500	0	0	10,000	0	0	0
Laketon	0	0	0	0	0	0	0	0	0	0
Kansas	98,800	3,000	3,190	32,000	47,500	44,000	116,000	93,300	0	8,000
El Dorado	0	0	0	0	0	0	0	0	0	5,000
Coffeyville.....	25,000	0	0	0	16,000	0	26,500	30,000	0	0
McPherson.....	22,800	500	0	20,000	0	0	31,500	38,300	0	0
El Dorado	31,500	2,500	0	0	25,500	44,000	40,000	25,000	0	0
Arkansas City.....	19,500	0	3,190	12,000	6,000	0	18,000	0	0	0
Kentucky	100,000	0	0	43,500	1,000	40,000	75,300	60,000	27,000	10,000
Catlettsburg.....	100,000	0	0	43,500	0	40,000	74,000	60,000	27,000	10,000
Somerses.....	0	0	0	0	1,000	0	1,300	0	0	0
Louisiana	883,300	4,000	175,000	303,400	191,500	211,500	518,200	479,000	133,700	35,000
Belle Chasse (Alliance)	94,300	2,000	0	0	42,000	0	43,000	47,000	0	0
Lake Charles	0	0	0	0	0	0	0	0	0	0
Princeton	0	0	0	0	0	0	0	0	6,000	0
Church Point	0	0	0	1,900	0	0	0	0	0	0
Lake Charles	130,000	0	45,000	86,000	20,000	0	116,000	30,000	23,000	0
Westlake.....	50,000	0	0	13,000	17,000	0	33,000	123,500	12,500	0
Lisbon.....	0	0	0	0	2,500	0	4,200	0	0	0
Baton Rouge	188,000	0	24,000	60,000	30,000	0	95,000	89,000	21,500	0
Lake Charles	0	0	0	0	0	0	0	0	0	0
Cotton Valley	0	0	0	0	0	0	0	0	0	0
Garyville	95,000	0	0	45,000	0	71,000	50,000	45,000	0	30,000
Chalmette.....	64,000	0	18,000	19,000	28,000	43,000	45,000	24,000	0	0
Meraux	40,000	0	0	23,000	0	27,500	29,000	15,000	0	0
Shreveport.....	0	0	0	6,500	0	0	10,000	10,000	10,200	0
Krotz Springs.....	28,000	0	0	0	12,000	0	14,000	0	0	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	Other/ Gas Oil
Placid Refining Co. Port Allen.....	48,500	0	49,500	0	20,000	0	0	0	0
Shell Oil Co. Norco.....	215,000	0	220,000	0	78,000	21,000	0	0	108,000
St. Rose Refining Inc. (Formerly Phibro Energy U.S.A. Inc.) St. Rose.....	40,000	0	45,000	0	18,000	0	0	0	0
Star Enterprise Convent.....	225,000	0	242,500	0	98,500	0	0	12,000	0
Michigan.....	115,500	0	123,000	0	38,000	0	0	0	0
Marathon Oil Co. Detroit.....	70,000	0	72,000	0	38,000	0	0	0	0
Total Petroleum Inc. Alma.....	45,600	0	51,000	0	0	0	0	0	0
Minnesota.....	287,100	0	289,220	0	182,000	61,000	0	0	0
Ashland Oil Inc. St. Paul.....	67,100	0	69,220	0	32,000	0	0	0	0
Koch Refining Co. St. Paul (Pine Bend).....	220,000	0	230,000	0	150,000	61,000	0	0	0
Mississippi.....	371,800	0	393,900	0	268,875	75,000	8,500	0	0
Amerada Hess Corp. Purvis.....	30,000	0	32,000	0	0	0	8,500	0	0
Barrett Refining Corp. Vicksburg.....	7,000	0	7,900	0	0	0	0	0	0
Chevron U.S.A. Inc. Pascagoula.....	295,000	0	310,000	0	243,000	75,000	0	0	0
Ergon Inc. Vicksburg.....	23,000	0	25,000	0	19,000	0	0	0	0
Southland Oil Co. Lumberton.....	5,800	0	6,500	0	0	0	0	0	0
Sandersville.....	11,000	0	12,500	0	6,875	0	0	0	0
Montana.....	139,550	0	145,700	0	58,450	13,000	7,700	0	0
Cenex Laurel.....	41,450	0	42,500	0	12,000	0	0	0	0
Conoco Inc. Billings.....	49,500	0	52,000	0	25,000	13,000	0	0	0
Exxon Co. U.S.A. Billings.....	42,000	0	44,000	0	18,000	0	7,700	0	0
Montana Refining Co. Great Falls.....	6,900	0	7,200	0	3,450	0	0	0	0
Nevada.....	7,000	0	7,000	0	6,000	0	0	0	0
Petro Source Refining Partners Eagle Springs.....	7,000	0	7,000	0	6,000	0	0	0	0
New Jersey.....	430,000	120,000	448,000	127,000	287,500	22,000	0	0	0
Amerada Hess Corp. Port Reading (Sewaren).....	0	0	0	0	0	0	0	0	0
Bayway Refining Co. (Formerly Exxon Co. U.S.A.) Bayway.....	200,000	0	200,000	0	65,000	0	0	0	0
Chevron U.S.A. Inc. Perth Amboy.....	0	80,000	0	83,000	47,000	0	0	0	0
Citgo Asphalt Refining Co. Paulsboro.....	0	40,000	0	44,000	40,000	0	0	0	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

Location	Downstream Charge Capacity (Continued)									
	Catalytic Cracking		Catalytic Hydrocracking	Catalytic Reforming		Heavy Gas Oil	Catalytic Hydrotreating			Fuel Solvents Deasphalting
	Fresh	Recycled		Low Pressure	High Pressure		Naphtha Reformer Feed	Distillate	Other/Residual	
Port Allen.....	19,000	2,000	0	10,000	0	0	10,000	0	0	5,000
Norco.....	90,000	0	38,000	39,000	0	70,000	29,000	0	28,000	0
St. Rose.....	0	0	0	0	0	0	0	0	0	0
Convent.....	85,000	0	50,000	0	40,000	0	40,000	95,500	32,500	0
Michigan.....	47,000	1,000	0	30,000	0	18,000	40,000	41,300	2,000	0
Detroit.....	27,500	1,000	0	15,000	0	11,200	17,000	21,800	0	0
Alma.....	19,500	0	0	15,000	0	3,800	23,000	19,500	2,000	0
Minnesota.....	88,000	0	0	30,000	36,500	103,000	95,800	108,000	0	0
St. Paul.....	23,000	0	0	0	23,500	23,000	32,800	20,000	0	0
St. Paul (Pine Bend).....	65,000	0	0	30,000	13,000	80,000	63,000	88,000	0	0
Mississippi.....	84,000	7,000	88,000	57,000	39,500	37,000	54,500	71,000	102,400	0
Purvis.....	18,000	7,000	0	0	6,500	0	6,500	6,000	0	0
Vicksburg.....	0	0	0	0	0	0	0	0	0	0
Pascagoula.....	68,000	0	68,000	57,000	33,000	37,000	48,000	65,000	96,000	0
Vicksburg.....	0	0	0	0	0	0	0	0	6,400	0
Lumberton.....	0	0	0	0	0	0	0	0	0	0
Sandersville.....	0	0	0	0	0	0	0	0	0	0
Montana.....	55,900	6,000	4,400	12,000	23,030	19,000	37,100	45,500	37,000	4,000
Laurel.....	13,500	1,500	0	12,000	0	16,000	18,000	15,000	0	4,000
Billings.....	19,000	1,000	0	0	12,000	0	2,500	8,500	28,000	0
Billings.....	21,000	3,500	4,400	0	10,000	0	15,500	20,000	6,000	0
Great Falls.....	2,400	0	0	0	1,030	0	1,100	2,000	3,000	0
Nevada.....	0	0	0	0	0	0	0	0	0	0
Eagle Springs.....	0	0	0	0	0	0	0	0	0	0
New Jersey.....	290,000	18,000	17,000	54,000	23,500	50,000	79,500	149,000	25,000	0
Port Reading (Sewaren).....	54,000	0	0	0	0	0	0	0	0	0
Bayway.....	140,000	6,000	0	28,000	0	50,000	30,000	83,000	0	0
Perth Amboy.....	0	0	0	0	0	0	0	0	0	0
Paulsboro.....	0	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	Other/ Gas Oil
Coastal Eagle Point Oil Co.									
Westville	117,000	0	128,000	0	50,000	0	0	0	0
Mobil Oil Corp.									
Paulsboro	113,000	0	118,000	0	65,500	22,000	0	0	0
New Mexico	94,000	0	98,100	0	26,500	0	0	0	0
Bloomfield Refining Co.									
Bloomfield	16,800	0	18,100	0	0	0	0	0	0
Giant Refining Co.									
Gallup	20,800	0	21,000	0	7,900	0	0	0	0
Navajo Refining Co.									
Artesia	57,000	0	60,000	0	19,000	0	0	0	0
North Dakota	60,000	0	60,000	0	0	0	0	0	0
Amoco Oil Co.									
Mandan	58,000	0	60,000	0	0	0	0	0	0
Ohio	462,100	0	462,000	0	181,000	20,000	0	0	0
Ashland Oil Inc.									
Canton	66,000	0	68,000	0	33,000	0	0	0	0
BP Oil Corp.									
Lima	145,000	0	155,000	0	50,000	20,000	0	0	0
Toledo	126,100	0	130,000	0	68,000	19,000	0	0	0
Sun Co Inc.									
Toledo	125,000	0	129,000	0	30,000	0	0	0	0
Oklahoma	493,000	0	521,700	0	147,000	20,000	0	0	0
Barrett Refining Corp.									
Thomas (Custer)	10,500	0	11,200	0	0	0	0	0	0
Conoco Inc.									
Ponca City	140,000	0	145,000	0	45,000	21,500	0	0	0
Cyril Petrochemical Corp.*									
Cyril	7,400	0	7,500	0	0	0	0	0	0
Kerr-McGee Refining Corp.									
Wynnewood	43,000	0	45,000	0	14,000	0	0	0	0
Sinclair Oil Corp.									
Tulsa	50,000	0	53,000	0	27,000	0	0	0	0
Sun Co Inc.									
Tulsa	85,000	0	90,000	0	29,000	6,500	0	0	0
Total Petroleum Inc.									
Ardmore	68,000	0	70,000	0	32,000	0	0	0	0
Oregon	0	0	0	0	15,000	0	0	0	0
Chevron U.S.A. Inc.									
Portland (Willbridge)	0	0	0	0	15,000	0	0	0	0
Pennsylvania	804,700	80,000	698,000	81,200	323,200	0	0	0	0
BP Oil Corp.									
Marcus Hook	172,000	0	186,000	0	78,000	0	0	0	0
Chevron U.S.A. Inc.									
Philadelphia	172,000	0	185,000	0	80,000	0	0	0	0
Pennzoil Producing Co.									
Rouseville	15,700	0	16,500	0	6,500	0	0	0	0
Petrowax Pennsylvania Inc.									
Farmer's Valley (Smethport)	0	0	0	0	3,750	0	0	0	0
Sun Co Inc.									
Marcus Hook	175,000	0	185,000	0	46,000	0	0	0	0
Sun Refining & Marketing									
Philadelphia	50,000	80,000	50,800	81,200	83,000	0	0	0	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

Location	Downstream Charge Capacity (Continued)									Fuel Solvents Deasphalting
	Catalytic Cracking		Catalytic Hydrocracking	Catalytic Reforming		Catalytic Hydrotreating				
	Fresh	Recycled		Low Pressure	High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/Residual	
Westville	52,000	12,000	17,000	26,000	0	0	26,000	15,000	10,000	0
Paulsboro	44,000	0	0	0	23,500	0	23,500	51,000	15,000	0
State Total	96,000	12,000	17,000	26,000	23,500	0	50,000	66,000	25,000	0
Bloomfield	6,000	500	0	0	4,000	0	4,000	3,000	0	0
Gallup	8,500	3,000	0	0	6,800	0	6,800	3,000	0	0
Artesia	20,000	1,000	0	12,500	5,000	0	20,000	25,000	0	0
State Total	28,500	4,000	0	12,500	9,000	0	26,800	28,000	0	0
Mandan	26,000	3,600	0	0	12,100	0	19,100	0	0	0
State Total	26,000	3,600	0	0	12,100	0	19,100	0	0	0
Canton	25,000	0	0	20,000	0	23,000	26,500	7,000	0	0
Lima	34,000	0	24,000	0	55,000	0	60,000	0	0	0
Toledo	55,000	16,500	35,000	0	42,000	0	40,000	0	0	0
Toledo	60,000	1,000	28,200	0	45,600	0	40,000	0	0	9,000
State Total	149,000	17,500	62,200	20,000	142,600	23,000	166,500	7,000	0	9,000
Thomas (Custer)	0	0	0	0	0	0	0	0	0	0
Ponca City	53,000	0	0	0	36,000	0	36,000	53,500	0	0
Cyril	0	0	0	0	0	0	0	0	0	0
Wynnewood	18,000	0	5,000	12,500	0	0	11,000	0	0	4,400
Tulsa	19,000	5,000	0	0	12,000	0	20,000	17,500	0	0
Tulsa	35,000	0	0	0	24,000	0	24,000	0	10,000	5,800
Ardmore	26,000	0	0	17,000	0	28,000	24,000	28,000	28,000	0
State Total	131,000	5,000	5,000	29,500	36,000	28,000	115,500	99,000	38,000	10,200
Portland (Willbridge)	0	0	0	0	0	0	0	0	0	0
State Total	131,000	5,000	5,000	29,500	36,000	28,000	115,500	99,000	38,000	10,200
Marcus Hook	51,000	1,600	21,000	48,000	0	42,000	56,000	44,000	0	0
Philadelphia	64,000	0	0	0	34,000	0	34,000	31,000	0	0
Rouseville	0	0	0	5,820	0	0	6,500	0	8,000	0
Farmer's Valley (Smethport)	0	0	0	0	0	0	0	0	0	0
Marcus Hook	86,000	0	0	0	41,300	0	57,500	28,800	6,000	0
Philadelphia	40,000	0	30,000	0	50,000	24,000	54,000	50,000	0	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Viebreaking	Other/ Gas Oil
United Refining Co.									
Warren	60,000	0	65,000	0	26,000	0	0	0	0
Witco Corp.									
Bradford	10,000	0	10,500	0	0	0	0	0	0
Tennessee	76,000	0	76,000	0	12,000	0	0	0	0
Mapco Petroleum Inc.									
Memphis	76,000	0	76,000	0	12,000	0	0	0	0
Texas	1,763,960	27,000	1,815,700	26,000	1,661,500	295,500	92,000	68,000	65,000
Age Refining & Marketing									
San Antonio	4,000	0	5,000	0	0	0	0	0	0
Amoco Oil Co.									
Texas City	433,000	0	460,000	0	240,000	36,000	0	0	0
Chevron U.S.A. Inc.									
El Paso	81,900	0	97,500	0	40,000	3,000	0	0	0
Port Arthur	185,000	0	195,000	0	85,000	35,000	0	0	0
Citgo Refining & Chemical Inc.									
Corpus Christi	130,000	0	142,000	0	67,000	34,000	0	0	0
Coastal Refining & Marketing Inc.									
Corpus Christi	85,000	0	95,000	0	45,000	14,500	0	10,000	0
Crown Central Petroleum Corp.									
Pasadena	100,000	0	103,000	0	38,000	12,500	0	0	0
Deer Park Refg Ltd Partnership (Formerly Shell Oil Co.)									
Deer Park	215,900	0	227,000	0	90,500	0	0	17,000	55,000
Diamond Shamrock Refining & Marketing Co.									
Sunray (McKee)	125,000	0	128,000	0	47,000	0	0	0	0
Three Rivers	70,000	0	73,000	0	28,000	0	0	0	0
Exxon Co. U.S.A.									
Baytown	396,000	0	418,000	0	230,000	0	32,000	0	0
Fina Oil & Chemical Co.									
Big Spring	55,000	0	60,000	0	24,000	0	0	0	0
Port Arthur	144,000	0	150,000	0	53,000	0	0	0	0
Howell Hydrocarbons & Chemical Inc.									
Channelview	1,400	0	1,700	0	0	0	0	0	0
Koch Refining Co.									
Corpus Christi	125,000	0	130,000	0	42,600	12,800	0	0	0
La Gloria Oil & Gas Co.									
Tyler	52,000	0	55,000	0	14,000	6,500	0	0	0
Lyondell Citgo Refining Co. Ltd. (Formerly Lyondell Petrochemical Co.)									
Houston	265,000	0	286,000	0	127,000	45,000	0	0	0
Marathon Oil Co.									
Texas City	70,000	0	74,000	0	0	0	0	0	0
Mobil Oil Corp.									
Beaumont	310,000	0	325,000	0	135,000	40,000	0	0	0
Petrolite Corp.									
Kilgore	1,000	0	1,000	0	400	0	0	0	0
Phibro Energy U.S.A. Inc.									
Houston	71,000	0	75,000	0	39,000	0	0	0	0
Texas City	123,500	0	130,700	0	64,000	0	0	21,000	0
Phillips 66 Co.									
Borger	105,000	0	110,000	0	0	0	0	0	0
Sweeny	175,000	0	195,000	0	83,000	0	0	0	0
Pride Refining Inc.									
Abilene	42,750	0	45,000	0	13,500	0	0	0	0
Shell Oil Co.									
Odessa	28,600	0	29,000	0	0	0	0	0	0
South Hampton Refining Co.									
Silsbee	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

Location	Downstream Charge Capacity (Continued)									
	Catalytic Cracking		Catalytic Hydrocracking	Catalytic Reforming		Catalytic Hydrotreating				Fuel Solvents Deasphalting
	Fresh	Recycled		Low Pressure	High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/Residual	
Warren.....	20,000	200	0	0	16,000	0	20,000	18,000	0	0
Bradford	0	0	0	0	1,800	0	3,300	0	0	0
Tennessee.....	40,000	0	0	14,000	0	0	19,000	36,000	0	0
Memphis.....	40,000	0	0	14,000	0	0	19,000	36,000	0	0
Texas.....	1,400,000	70,000	843,000	621,000	206,000	801,000	1,241,000	1,199,100	777,000	103,000
San Antonio	0	0	0	0	1,200	0	0	0	0	0
Texas City.....	204,000	43,000	120,000	60,000	78,000	85,000	146,000	130,000	0	0
El Paso.....	25,000	0	0	25,000	0	0	25,000	18,000	0	0
Port Arthur	65,000	0	0	48,000	0	68,000	50,000	82,000	0	0
Corpus Christi	78,000	0	0	52,000	0	65,000	60,000	41,700	0	0
Corpus Christi	20,000	0	11,000	0	30,500	22,500	35,000	24,000	0	0
Pasadena	56,000	0	0	23,000	13,000	0	28,000	7,000	16,000	0
Deer Park	65,000	5,000	65,000	43,000	20,000	45,000	65,000	70,000	55,500	0
Sunray (McKee)	47,000	0	25,000	42,000	0	0	35,000	31,500	0	10,000
Three Rivers.....	21,000	0	26,000	30,000	0	0	20,000	4,000	0	7,000
Baytown	195,000	5,000	24,000	123,000	0	110,000	148,000	212,000	44,100	35,000
Big Spring.....	23,500	0	0	21,000	0	6,000	25,500	22,750	2,500	10,000
Port Arthur	59,000	0	0	35,000	0	0	40,000	48,000	23,000	18,000
Channelview.....	0	0	0	0	0	0	0	0	0	0
Corpus Christi	50,000	0	12,500	48,000	0	0	54,000	9,000	0	0
Tyler	18,000	800	0	13,000	4,600	0	22,000	12,000	0	0
Houston.....	92,000	0	0	25,000	83,000	82,000	132,000	93,000	6,600	0
Texas City.....	34,000	0	0	0	10,000	0	0	0	0	0
Beaumont.....	102,000	0	45,000	132,000	0	0	109,000	95,000	0	0
Kilgore	0	0	0	0	0	0	0	0	0	0
Houston.....	61,000	0	0	0	13,500	0	14,000	31,500	0	17,000
Texas City.....	42,000	0	0	12,100	11,100	0	29,200	59,000	0	0
Borger	60,000	10,400	0	0	26,000	0	26,500	40,000	50,000	0
Sweeny	87,000	12,000	0	0	36,000	0	53,000	50,000	75,000	0
Abilene	0	0	0	7,500	0	0	7,500	12,000	0	0
Odessa.....	10,000	0	0	0	10,000	0	10,700	0	0	0
Silsbee	0	0	0	1,400	0	0	3,500	500	500	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	Other/ Gas Oil
Texas									
Southwestern Refining Co. Inc.									
Corpus Christi	104,000	0	108,000	0	36,000	0	0	0	0
Star Enterprise									
Port Arthur/Neches.....	235,000	0	266,000	0	112,000	56,000	0	0	0
Trifinery									
Corpus Christi	0	27,000	0	29,000	19,500	0	0	10,000	0
Valero Refining Co.									
Corpus Christi	29,900	0	30,800	0	25,000	0	0	0	0
Total Texas									
	368,900	27,000	405,600	29,000	181,000	61,000	0	10,000	0
Amoco Oil Co.									
Salt Lake City.....	40,000	0	41,500	0	0	0	0	0	0
Big West Oil Co.									
North Salt Lake	24,000	0	25,000	0	3,800	0	0	0	0
Chevron U.S.A. Inc.									
Salt Lake City.....	45,000	0	49,000	0	35,500	8,500	0	0	0
Crysen Refining Inc.									
Woods Cross	12,500	0	13,000	0	5,000	0	0	0	0
Pennzoil Producing Co.									
Roosevelt	8,000	0	8,000	0	0	0	0	0	0
Phillips 66 Co.									
Woods Cross	25,000	0	26,000	0	4,800	0	0	0	0
Total Texas									
	154,500	0	163,500	0	43,300	8,500	0	0	0
Virginia									
Amoco Oil Co.									
Yorktown	53,000	0	56,000	0	29,000	14,000	0	0	0
Total Virginia									
	53,000	0	56,000	0	29,000	14,000	0	0	0
Washington									
Arco Products Co.									
Ferndale (Cherry Point)	179,000	0	190,000	0	98,000	52,000	0	0	0
Chevron U.S.A. Inc.									
Richmond Beach.....	0	0	0	0	6,200	0	0	0	0
Shell Oil Co.									
Anacortes.....	96,600	0	100,000	0	47,000	0	0	0	0
Sound Refining Inc.									
Tacoma	0	11,900	0	12,754	6,000	0	0	0	0
Texaco Refining & Marketing Inc.									
Anacortes (Puget Sound).....	132,000	0	140,000	0	60,000	25,000	0	0	0
Tosco Northwest Co.									
(Formerly BP Oil Corp.)									
Ferndale	84,300	0	95,000	0	48,000	0	0	0	0
U.S. Oil & Refining Co.									
Tacoma	32,400	0	34,500	0	19,500	0	0	0	0
Total Washington									
	411,900	11,900	436,500	12,754	234,700	77,000	0	0	0
West Virginia									
Quaker State Corp.									
Newell	11,500	0	12,500	0	6,000	0	0	0	0
Total West Virginia									
	11,500	0	12,500	0	6,000	0	0	0	0
Wisconsin									
Murphy Oil U.S.A. Inc.									
Superior	33,200	0	35,000	0	20,500	0	0	0	0
Total Wisconsin									
	33,200	0	35,000	0	20,500	0	0	0	0
Wyoming									
Frontier Refining Co.									
Cheyenne	38,670	0	41,000	0	23,000	10,000	0	0	0
Little America Refining Co.									
Evansville (Casper).....	24,500	0	25,500	0	12,000	0	0	0	0
Sinclair Oil Corp.									
Sinclair	54,000	0	55,000	0	30,000	0	0	0	0
Total Wyoming									
	117,170	0	121,500	0	65,000	10,000	0	0	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

Location	Downstream Charge Capacity (Continued)									Fuel Solvents Deasphalting
	Catalytic Cracking		Catalytic Hydrocracking	Catalytic Reforming		Catalytic Hydrotreating				
	Fresh	Recycled		Low Pressure	High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/Residual	
Corpus Christi.....	50,000	0	0	0	30,000	18,000	40,000	27,000	0	0
Port Arthur/Neches.....	80,000	0	19,800	50,000	0	0	43,000	78,200	41,700	0
Corpus Christi.....	0	0	0	0	0	0	0	0	0	0
Corpus Christi.....	65,000	0	35,000	30,000	0	0	20,000	0	63,000	0
Salt Lake City.....	18,000	4,000	0	0	7,600	0	7,600	0	0	0
North Salt Lake.....	5,000	1,000	0	0	5,000	0	6,000	7,000	0	0
Salt Lake City.....	12,000	0	0	0	7,500	0	7,500	12,000	6,000	0
Woods Cross.....	0	0	0	0	2,200	0	2,100	4,000	0	0
Roosevelt.....	6,000	500	2,400	0	2,000	0	2,000	0	0	0
Woods Cross.....	8,400	2,600	0	0	6,000	0	11,000	1,600	0	5,000
Yorktown.....	27,500	2,000	0	10,200	0	0	10,500	16,000	0	0
Ferndale (Cherry Point).....	54,000	0	54,000	57,000	0	54,000	44,000	22,000	0	0
Richmond Beach.....	0	0	0	0	0	0	0	0	0	0
Anacortes.....	43,700	3,000	0	26,000	0	7,500	32,000	22,000	0	18,000
Tacoma.....	0	0	0	0	0	0	0	0	0	0
Anacortes (Puget Sound).....	51,000	4,000	0	0	30,000	0	29,000	16,000	32,000	0
Ferndale.....	27,000	0	0	16,400	0	0	16,500	27,000	0	0
Tacoma.....	0	0	0	0	6,000	4,000	6,000	0	0	0
Newell.....	0	0	4,440	3,700	0	0	4,000	0	0	0
Superior.....	11,000	0	0	8,000	0	0	9,000	5,800	0	0
Cheyenne.....	12,000	500	0	6,500	0	0	7,500	15,000	0	0
Evansville (Casper).....	10,500	5,000	0	0	6,000	0	7,200	8,000	0	0
Sinclair.....	21,000	1,000	0	0	14,200	0	14,200	22,000	0	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			Other/ Gas Oil
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Viebreaking	
Wyoming Refining Co. Newcastle	12,555	0	13,500	0	1,500	0	0	0	0
U.S. Total	14,704,700	620,400	15,552,128	352,164	6,002,395	1,504,000	247,200	120,900	234,500
Puerto Rico	138,000	0	144,000	0	85,000	0	0	0	0
Caribbean Petroleum Corp. San Juan (Bayamon)	45,000	0	48,000	0	22,000	0	0	0	0
Peerless Oil & Chemical Ponce	8,800	0	9,000	0	18,000	0	0	0	0
Phillips Puerto Rico Core Inc. Guayama	0	0	0	0	0	0	0	0	0
Sun Co Inc. Yabucoa	85,000	0	87,000	0	45,000	0	0	0	0
Virgin Islands	370,000	175,000	400,000	195,000	225,000	0	0	85,000	0
Amerada Hess Corp. St. Croix	370,000	175,000	400,000	195,000	225,000	0	0	85,000	0

See footnotes at end of table.

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

Location	Downstream Charge Capacity (Continued)									Fuel Solvents Deasphalting
	Catalytic Cracking		Catalytic Hydrocracking	Catalytic Reforming		Catalytic Hydrotreating				
	Fresh	Recycled		Low Pressure	High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/ Residual	
Newcastle.....	5,500	4,500	0	0	2,750	0	0	4,000	0	0
U.S. Total.....	3,000,700	100,000	1,070,000	2,000,000	1,211,200	1,000,400	4,000,000	3,002,450	990,700	200,700
Puerto Rico.....	14,200	0	0	0	6,500	0	6,800	11,000	0	0
San Juan (Bayamon)	14,200	0	0	0	6,500	0	6,800	11,000	0	0
Ponce.....	0	0	13,600	0	0	5,800	0	3,300	4,500	0
Guayama.....	0	0	0	38,400	14,400	0	50,000	0	0	0
Yabucoa.....	0	0	15,600	20,000	0	10,000	20,000	0	0	0
Virgin Islands.....	100,000	0	0	90,000	25,000	135,000	130,000	150,000	0	0
St. Croix.....	100,000	0	0	90,000	25,000	135,000	130,000	150,000	0	0

* Refinery was reactivated during 1993.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 1994
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers		Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane				
Alabama	0	0	20,000	0	8,000	0	400	6	63
Coastal Mobile Refining Co.									
Chickasaw	0	0	10,500	0	0	0	0	0	0
Hunt Refining Co.									
Tuscaloosa	0	0	9,500	0	0	0	400	6	8
LL&E Petroleum Marketing Inc.									
Saraland (Mobile)	0	0	0	0	5,000	0	0	0	55
Alaska	0	2,100	2,500	0	4,000	0	0	13	15
Mapco Petroleum Inc.									
North Pole	0	2,100	2,500	0	0	0	0	0	0
Tesoro Petroleum Corp.									
Kenai	0	0	0	0	4,000	0	0	13	15
Arizona	0	0	1,200	0	0	0	0	0	0
Intermountain Refining Co., Inc.									
Fredonia	0	0	1,200	0	0	0	0	0	0
Arkansas	4,900	0	10,550	0	6,000	4,700	0	3	32
Berry Petroleum Co.									
Stephens	0	0	800	0	0	0	0	0	0
Cross Oil & Refining Co. Inc.									
Smackover	0	0	2,050	0	0	4,700	0	3	0
Lion Oil Co.									
El Dorado	4,900	0	7,700	0	6,000	0	0	0	32
California	116,900	0	72,663	6,200	7,400	31,800	94,512	1,057	4,666
Arco Products Co.									
Los Angeles	13,000	0	0	0	0	0	10,064	75	290
Chevron U.S.A. Inc.									
El Segundo	8,400	0	0	0	0	0	16,500	130	840
Richmond	8,000	0	2,000	0	0	13,000	0	185	672
Exxon Co. U.S.A.									
Benicia	14,000	0	0	0	0	0	5,500	104	304
Huntway Refining Co.									
Benicia	0	0	4,500	0	0	0	0	0	0
Wilmington	0	0	3,500	0	0	0	0	0	0
Kern Oil & Refining Co.									
Bakersfield	0	0	0	0	0	0	0	0	4
Lunday Thagard Co.									
South Gate	0	0	5,833	0	0	0	0	0	0
Mobil Oil Corp.									
Torrance	20,000	0	0	0	0	0	14,500	122	441
Pacific Refining Co.									
Hercules	0	0	6,000	0	0	0	0	0	0
Paramount Petroleum Corp.									
Paramount	0	0	15,000	0	0	0	0	0	0
Petroleum Fuel & Terminal* (Formerly Edgington Oil Co.)									
Long Beach	0	0	6,630	0	0	0	0	0	0
Powerline Oil Co.									
Santa Fe Springs	2,700	0	0	1,500	0	0	2,500	19	45
San Joaquin Refining Co. Inc.									
Bakersfield	0	0	8,000	0	0	4,000	0	0	0
Shell Oil Co.									
Martinez	9,500	0	15,000	0	0	4,100	700	107	259

See footnotes at end of table.

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers		Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane				
Tenby Inc.									
Oxnard.....	0	0	1,200	0	0	0	0	0	0
Texaco Refining & Marketing Inc.									
Bakersfield.....	0	0	1,000	700	0	0	6,600	24	96
Wilmington (Los Angeles).....	6,300	0	0	0	0	0	9,850	70	392
Tosco Refining Co.									
Martinez (Avon)	16,000	0	0	0	0	0	1,500	80	200
Ultramar Inc.									
Wilmington.....	10,500	0	0	4,000	0	0	1,350	0	200
Unocal Corp.									
Arroyo Grande (Santa Maria)	0	0	0	0	0	0	7,000	0	107
Rodeo (San Francisco).....	0	0	0	0	7,400	4,700	6,337	65	392
Wilmington (Los Angeles).....	10,500	0	0	0	0	0	12,111	76	624
Witco Corp.									
Oildale	0	0	4,000	0	0	6,000	0	0	0
Colorado.....	1,200	0	8,500	0	0	0	0	0	97
Colorado Refining Co.									
Commerce City.....	1,200	0	0	0	0	0	0	0	2
Conoco Inc.									
Commerce City.....	0	0	8,500	0	0	0	0	0	95
Delaware.....	11,500	0	0	0	0	0	9,080	40	440
Star Enterprise									
Delaware City	11,500	0	0	0	0	0	9,080	40	440
Georgia.....	0	0	27,000	0	0	2,000	0	0	0
Citgo Asphalt Refining Co. (Formerly Amoco Oil Co.)									
Savannah	0	0	24,000	0	0	0	0	0	0
Young Refining Corp.									
Douglasville	0	0	3,000	0	0	2,000	0	0	0
Hawaii.....	5,000	0	16,950	3,200	0	0	0	21	0
BHP Petroleum Americas Refining Inc. (Formerly Hawaiian Independent Refining Inc.)									
Ewa Beach	0	0	950	0	0	0	0	18	0
Chevron U.S.A. Inc.									
Honolulu	5,000	0	15,000	3,200	0	0	0	3	0
Illinois.....	66,500	8,000	59,000	1,000	11,900	7,200	24,619	66	1,675
Clark Oil & Refining Corp.									
Blue Island.....	5,000	0	7,000	1,000	3,000	0	0	19	22
Hartford	8,000	0	2,500	0	4,000	0	4,500	3	110
Indian Refining									
Lawrenceville.....	6,000	0	4,500	0	0	0	0	0	70
Marathon Oil Co.									
Robinson	12,500	0	0	0	4,900	0	6,400	0	180
Mobil Oil Corp.									
Joliet	25,000	0	0	0	0	0	11,750	0	395
Shell Oil Co.									
Wood River.....	22,000	4,500	45,000	0	0	7,200	0	35	450
Uno-Ven Co.									
Lemont (Chicago).....	18,000	3,500	0	0	0	0	1,969	11	448

See footnotes at end of table.

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers		Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane				
Indiana	32,700	15,000	60,000	0	22,000	6,000	10,540	35	410
Amoco Oil Co.									
Whiting	31,000	15,000	60,000	0	22,000	6,000	10,540	35	410
Countrymark Cooperative Inc.									
Mount Vernon	1,700	0	2,200	0	2,200	0	0	0	0
Laketon Refining Corp.									
Laketon	0	0	3,800	0	0	0	0	0	0
Iowa	31,000	3,000	6,300	2,000	9,500	0	10,673	0	400
Coastal Refining & Marketing Inc.									
El Dorado	0	0	3,800	0	0	0	0	0	0
Farmland Industries Inc.									
Coffeyville	6,000	0	0	0	8,500	0	3,600	0	39
National Cooperative Refinery Assoc.									
McPherson	6,000	0	0	2,000	9,500	0	3,323	0	66
Texaco Refining & Marketing Inc.									
El Dorado	13,500	3,000	0	0	15,000	0	3,750	8	279
Total Petroleum Inc.									
Arkansas City	5,500	0	2,500	0	0	0	0	0	22
Kentucky	12,000	6,000	30,000	4,000	12,000	8,500	0	20	400
Ashland Oil Inc.									
Catlettsburg	12,000	6,000	30,000	4,000	12,000	8,500	0	20	400
Somerset Refinery Inc.									
Somerset	0	0	0	0	250	0	0	0	0
Louisiana	191,200	23,000	60,500	14,700	85,000	17,000	43,225	227	3,574
BP Oil Corp.									
Belle Chasse (Alliance)	38,000	12,000	0	0	0	0	4,600	40	50
Calumet Lubricants Co. L.P.									
Princeton	0	0	960	0	0	5,000	0	5	2
Citgo Petroleum Corp.									
Lake Charles	23,000	4,000	0	0	28,000	9,000	22,500	0	690
Conoco Inc.									
Westlake	7,500	0	0	0	0	0	18,250	0	430
Dubach Gas Co.									
Lisbon	0	950	0	0	1,600	0	0	0	0
Exxon Co. U.S.A.									
Baton Rouge	33,200	0	12,000	0	12,500	15,500	24,400	19	661
Marathon Oil Co.									
Garyville	27,000	0	40,000	12,000	10,000	0	0	0	504
Mobil Oil Corp.									
Chalmette	19,000	7,000	0	0	0	0	7,750	24	198
Murphy Oil U.S.A. Inc.									
Meraux	9,500	0	15,000	0	0	0	0	0	0
Pennzoil Producing Co.									
Shreveport	0	0	600	0	0	8,000	0	6	13
Phibro Energy U.S.A. Inc.									
Krotz Springs	0	0	0	2,700	800	0	0	0	10
Placid Refining Co.									
Port Allen	4,000	0	0	0	0	0	0	0	8
Shell Oil Co.									
Norco	15,500	0	0	0	0	0	5,725	70	280
Star Enterprise									
Convent	14,500	0	0	0	12,500	0	0	63	728

See footnotes at end of table.

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers		Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane				
Michigan	10,400	0	28,000	0	3,500	0	0	0	178
Marathon Oil Co.									
Detroit	4,200	0	28,000	0	0	0	0	0	120
Total Petroleum Inc.									
Alma	6,200	0	0	0	3,500	0	0	0	58
Minnesota	16,500	0	30,000	0	23,300	0	16,000	76	700
Ashland Oil Inc.									
St. Paul	5,500	0	14,000	0	8,300	0	0	10	100
Koch Refining Co.									
St. Paul (Pine Bend)	10,000	0	25,000	0	15,000	0	16,000	66	600
Mississippi	20,200	6,500	42,700	0	0	6,400	21,800	223	1,270
Amerada Hess Corp.									
Purvis	4,000	0	0	0	0	0	1,800	0	50
Chevron U.S.A. Inc.									
Pascagoula	16,200	5,500	20,000	0	0	0	20,000	215	1,220
Ergon Inc.									
Vicksburg	0	0	13,000	0	0	6,400	0	8	0
Southland Oil Co.									
Lumberton	0	0	3,575	0	0	0	0	0	0
Sandersville	0	0	6,125	0	0	0	0	0	0
Montana	13,780	0	27,900	6,050	400	0	5,775	43	250
Cenex									
Laurel	3,780	0	10,000	1,250	0	0	0	12	130
Conoco Inc.									
Billings	6,000	0	6,500	3,800	0	0	3,600	5	120
Exxon Co. U.S.A.									
Billings	3,400	0	10,000	0	0	0	2,175	24	0
Montana Refining Co.									
Great Falls	600	0	1,400	0	400	0	0	2	0
Nevada	0	0	1,000	0	0	0	0	0	0
Petro Source Refining Partners									
Eagle Springs	0	0	1,000	0	0	0	0	0	0
New Jersey	30,000	3,500	62,000	0	25,000	9,000	6,500	21	511
Amerada Hess Corp.									
Port Reading (Sewaren)	6,000	0	0	0	0	0	0	0	10
Bayway Refining Co.									
(Formerly Exxon Co. U.S.A.)									
Bayway	13,500	0	0	0	25,000	0	0	10	350
Chevron U.S.A. Inc.									
Perth Amboy	0	0	35,000	0	0	0	0	0	0
Citgo Asphalt Refining Co.									
Paulsboro	0	0	27,600	0	0	0	0	0	0
Coastal Eagle Point Oil Co.									
Westville	4,000	3,500	0	0	0	0	0	0	2
Mobil Oil Corp.									
Paulsboro	6,500	0	0	0	0	9,000	6,500	11	149
New Mexico	11,200	0	6,400	0	4,000	0	0	0	24
Bloomfield Refining Co.									
Bloomfield	0	0	0	0	0	0	0	0	2

See footnotes at end of table.

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers		Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane				
Glant Refining Co. Gallup	1,800	0	0	0	4,000	0	0	0	2
Navajo Refining Co. Artesia	9,400	0	6,400	0	0	0	0	0	20
North Dakota	4,800	0	0	0	5,100	0	0	0	17
Amoco Oil Co. Mandan	4,800	0	0	0	5,100	0	0	0	17
Ohio	25,800	16,000	11,800	4,193	6,500	200	6,190	72	295
Ashland Oil Inc. Canton	7,000	0	12,000	0	6,500	0	0	0	110
BP Oil Corp. Lima	0	7,000	300	4,193	0	0	3,000	0	40
Toledo	11,000	0	7,000	0	0	0	3,190	24	100
Sun Co Inc. Toledo	7,800	9,000	2,500	0	0	200	0	48	45
Oklahoma	34,000	2,200	18,800	7,300	23,100	7,500	6,025	36	226
Conoco Inc. Ponca City	12,000	0	0	4,500	10,000	0	4,800	0	78
Kerr-McGee Refining Corp. Wynnewood	5,000	0	5,000	0	4,000	0	0	10	0
Sinclair Oil Corp. Tulsa	3,000	0	3,200	0	8,000	0	0	0	20
Sun Co Inc. Tulsa	7,000	2,200	4,600	2,800	0	7,500	1,225	0	0
Total Petroleum Inc. Ardmore	7,000	0	6,000	0	1,100	0	0	26	128
Oregon	0	0	11,250	0	0	0	0	0	0
Chevron U.S.A. Inc. Portland (Willbridge)	0	0	11,250	0	0	0	0	0	0
Pennsylvania	51,000	11,000	33,000	6,000	7,950	6,550	0	56	466
BP Oil Corp. Marcus Hook	12,000	0	0	4,000	0	0	0	0	201
Chevron U.S.A. Inc. Philadelphia	18,000	4,000	0	4,000	0	0	0	0	45
Pennzoil Producing Co. Rouseville	0	0	0	0	1,150	4,750	0	4	0
Sun Refining & Marketing Marcus Hook	12,000	7,000	0	0	0	0	0	7	0
Philadelphia	6,000	0	25,000	0	0	0	0	45	220
United Refining Co. Warren	3,000	0	8,000	0	6,800	0	0	0	20
Witco Corp. Bradford	0	0	0	0	0	2,100	0	0	0
Tennessee	2,500	0	3,500	0	4,000	0	0	0	50
Mapco Petroleum Inc. Memphis	2,500	0	3,500	0	4,000	0	0	0	50

See footnotes at end of table.

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers		Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane				
Texas	911,460	162,078	60,128	24,500	18,900	78,000	88,010	619	7,934
Age Refining & Marketing San Antonio.....	0	1,200	0	0	0	0	0	0	0
Amoco Oil Co. Texas City.....	62,000	45,000	0	0	28,000	0	13,800	204	1,400
Chevron U.S.A. Inc. El Paso.....	9,000	0	5,600	0	0	0	675	0	64
Port Arthur.....	16,900	15,800	0	0	0	0	9,750	0	580
Citgo Refining & Chemical Inc. Corpus Christi.....	19,200	6,500	0	0	0	0	11,500	0	783
Coastal Refining & Marketing Inc. Corpus Christi.....	3,000	19,100	5,000	0	5,200	0	3,250	24	85
Deer Park Refg Ltd Partnership (Formerly Shell Oil Co.) Deer Park.....	8,100	11,900	5,400	0	0	10,000	0	60	577
Diamond Shamrock Refining & Marketing Co. Sunray (McKee).....	9,150	0	7,500	0	0	0	0	0	45
Three Rivers.....	6,000	0	500	0	0	1,500	0	0	0
Exxon Co. U.S.A. Baytown.....	29,000	0	7,000	0	0	31,200	1,250	147	1,030
Fina Oil & Chemical Co. Big Spring.....	5,000	1,000	7,600	0	0	0	0	0	129
Port Arthur.....	5,500	9,500	2,000	0	8,000	0	0	34	253
Koch Refining Co. Corpus Christi.....	9,900	18,500	0	0	2,000	0	2,350	0	50
La Gloria Oil & Gas Co. Pasadena.....	10,000	0	0	0	5,000	0	1,500	0	20
Tyler.....	4,700	0	0	500	4,000	0	1,500	0	11
Lyondell Citgo Refining Co. Ltd. (Formerly Lyondell Petrochemical Co.) Houston.....	0	36,000	0	0	0	6,600	10,900	0	400
Marathon Oil Co. Texas City.....	10,000	2,500	0	0	0	0	0	0	0
Mobil Oil Corp. Beaumont.....	13,500	0	0	0	20,000	11,000	12,000	60	560
Petrolite Corp. Kilgore.....	0	0	125	0	0	0	0	0	0
Phibro Energy U.S.A. Inc. Houston.....	8,500	2,600	8,000	0	0	0	0	0	100
Texas City.....	6,000	0	0	0	6,000	0	0	0	145
Phillips 66 Co. Borger.....	14,000	0	0	11,000	24,600	0	0	50	340
Sweeny.....	20,000	5,575	0	0	16,900	0	0	120	385
Shell Oil Co. Odessa.....	3,300	0	0	0	0	0	0	0	0
South Hampton Refining Co. Silsbee.....	0	400	0	0	825	0	0	2	0
Southwestern Refining Co. Inc. Corpus Christi.....	7,500	6,500	0	0	7,500	0	0	0	123
Star Enterprise Port Arthur/Neches.....	20,000	0	0	0	0	19,500	16,535	0	484
Trifinery Corpus Christi.....	0	0	11,400	0	0	0	0	0	0
Valero Refining Co. Corpus Christi.....	11,200	0	0	13,000	0	0	0	118	370

See footnotes at end of table.

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers		Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane				
Utah	12,400	0	2,300	4,300	4,250	0	2,000	0	29
Amoco Oil Co. Salt Lake City	4,000	0	0	3,000	0	0	0	0	0
Big West Oil Co. North Salt Lake	1,300	0	0	200	1,650	0	0	0	0
Chevron U.S.A. Inc. Salt Lake City	5,000	0	0	1,100	0	0	2,000	0	18
Crysen Refining Inc. Woods Cross	0	0	1,600	0	0	0	0	0	0
Phillips 66 Co. Woods Cross	2,100	0	1,700	0	2,600	0	0	0	11
Virginia	0	0	0	0	0	0	5,100	0	73
Amoco Oil Co. Yorktown	0	0	0	0	0	0	5,100	0	73
Washington	22,200	0	15,200	2,500	1,500	0	22,500	90	350
Arco Products Co. Ferndale (Cherry Point)	0	0	0	0	0	0	15,000	90	225
Chevron U.S.A. Inc. Richmond Beach	0	0	4,200	0	0	0	0	0	0
Shell Oil Co. Anacortes	11,500	0	0	2,500	0	0	0	0	0
Sound Refining Inc. Tacoma	0	0	3,000	0	0	0	0	0	0
Texaco Refining & Marketing Inc. Anacortes (Puget Sound)	10,500	0	0	0	0	0	7,500	0	108
Tosco Northwest Co. (Formerly BP Oil Corp.) Ferndale	6,200	0	0	0	0	0	0	0	40
U.S. Oil & Refining Co. Tacoma	0	0	8,000	0	1,500	0	0	0	7
West Virginia	0	0	0	0	0	5,056	0	1	0
Quaker State Corp. Newell	0	0	0	0	0	5,056	0	1	0
Wisconsin	1,600	0	13,500	0	2,000	0	0	0	14
Murphy Oil U.S.A. Inc. Superior	1,600	0	13,500	0	2,000	0	0	0	14
Wyoming	7,334	0	10,400	4,000	0	0	621	5	120
Frontier Refining Co. Cheyenne	3,000	0	7,000	2,000	0	0	621	5	97
Sinclair Oil Corp. Evansville (Casper)	0	0	4,400	0	0	0	0	0	0
Sinclair	4,000	0	5,000	2,000	0	0	0	0	40
Wyoming Refining Co. Newcastle	834	0	0	0	0	0	0	0	2
U.S. Total	1,085,584	271,305	792,698	90,943	407,775	212,506	410,370	2,940	24,554

See footnotes at end of table.

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 1994 (Continued)
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers		Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane				
Puerto Rico	0	15,000	1,000	0	0	0,400	0	20	00
Caribbean Petroleum Corp. San Juan (Bayamon)	0	0	1,000	0	0	0	0	0	19
Peerless Oil & Chemical Ponce	0	0	0	0	0	0	0	7	0
Phillips Puerto Rico Core Inc. Guayama	0	15,000	0	0	0	0	0	0	0
Sun Co Inc. Yabucoa	0	0	0	0	0	9,500	0	19	50
Virgin Islands	20,000	20,000	0	0	18,000	0	0	0	600
Amerada Hess Corp. St. Croix	20,000	20,000	0	0	18,000	0	0	0	600

MMcfd = Million cubic feet per day.

* Refinery was reactivated during 1993.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 40. Refiners' Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 1994

Refiner	Barrels per Calendar Day	Refiner	Barrels per Calendar Day
Companies with Capacity Over 100,000 bbl/cd			
Chevron U.S.A. Inc.	1,372,700	Sun Co Inc.	515,000
Pascagoula, Mississippi	295,000	Marcus Hook, Pennsylvania.....	175,000
Richmond, California.....	235,000	Toledo, Ohio	125,000
El Segundo, California	226,000	Tulsa, Oklahoma	85,000
Port Arthur, Texas.....	185,000	Sun Refining & Marketing	
Philadelphia, Pennsylvania	172,000	Philadelphia, Pennsylvania	130,000
El Paso, Texas	81,900	Petroleos De Venezuela.....	503,000
Perth Amboy, New Jersey	80,000	Citgo Petroleum Corp.	
Honolulu, Hawaii	52,800	Lake Charles, Louisiana	305,000
Salt Lake City, Utah	45,000	Citgo Refining & Chemical Inc.	
Exxon Co. U.S.A.	990,000	Corpus Christi, Texas	130,000
Baton Rouge, Louisiana.....	424,000	Citgo Asphalt Refining Co.	
Baytown, Texas	396,000	Paulsboro, New Jersey	40,000
Benicia, California	128,000	Savannah, Georgia ^a	28,000
Billings, Montana.....	42,000	Atlantic Richfield Co.	443,000
Amoco Oil Co.	984,000	Arco Products Co.	
Texas City, Texas	433,000	Los Angeles, California.....	237,000
Whiting, Indiana	400,000	Ferndale (Cherry Point), Washington	179,000
Mandan, North Dakota.....	58,000	Arco Alaska Inc.	
Yorktown, Virginia	53,000	Prudhoe Bay, Alaska	15,000
Salt Lake City, Utah	40,000	Kuparuk, Alaska	12,000
Mobil Oil Corp.	903,000	Tosco Corp.	432,300
Beaumont, Texas	310,000	Bayway Refining Co.	
Joliet, Illinois.....	180,000	Bayway, New Jersey ^b	200,000
Chalmette, Louisiana	170,000	Tosco Refining Co.	
Torrance, California.....	130,000	Martinez (Avon), California	148,000
Paulsboro, New Jersey	113,000	Tosco Northwest Co.	
Shell Oil Co.	739,300	Ferndale, Washington ^c	84,300
Wood River, Illinois	252,000	E I Du Pont De Nemours & Co.....	429,000
Norco, Louisiana.....	215,000	Conoco Inc.	
Martinez, California	147,100	Westlake, Louisiana	182,000
Anacortes, Washington	96,600	Ponca City, Oklahoma	140,000
Odessa, Texas	28,600	Commerce City, Colorado	57,500
BP America Inc.	666,400	Billings, Montana	49,500
BP Oil Corp.		Ashland Oil Inc.	346,500
Belle Chasse (Alliance), Louisiana.....	223,300	Catlettsburg, Kentucky	213,400
Marcus Hook, Pennsylvania.....	172,000	St. Paul, Minnesota	67,100
Lima, Ohio.....	145,000	Canton, Ohio	66,000
Toledo, Ohio.....	126,100	Koch Industries Inc.....	345,000
Star Enterprise	600,000	Koch Refining Co.	
Port Arthur/Neches, Texas	230,000	St. Paul (Pine Bend), Minnesota	220,000
Convent, Louisiana	225,000	Corpus Christi, Texas	125,000
Delaware City, Delaware.....	140,000	Texaco Refining & Marketing Inc.....	330,000
USX Corp.	570,000	Anacortes (Puget Sound), Washington	132,000
Marathon Oil Co.		El Dorado, Kansas	80,000
Garyville, Louisiana.....	255,000	Wilmington (Los Angeles), California	64,000
Robinson, Illinois	175,000	Bakersfield, California	54,000
Detroit, Michigan	70,000	Phillips Petroleum Co.	305,000
Texas City, Texas	70,000	Phillips 66 Co.	
		Sweeny, Texas	175,000
		Borger, Texas	105,000
		Woods Cross, Utah	25,000

See footnotes at end of table.

Table 40. Refiners' Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 1994
(Continued)

Refiner	Barrels per Calendar Day	Refiner	Barrels per Calendar Day
Lyondell Petrochemical Co.		Horsham Corp	128,900
Lyondell Citgo Refining Co. Ltd.		Clark Oil & Refining Corp	
Houston, Texas.....	265,000	Blue Island, Illinois	71,900
		Hartford, Illinois	57,000
Solomon Inc.	254,500	Sinclair Oil Corp	128,500
Phibro Energy U.S.A. Inc.		Sinclair, Wyoming	54,000
Texas City, Texas.....	123,500	Tulsa, Oklahoma.....	50,000
Houston, Texas.....	71,000	Little America Refining Co.	
Krotz Springs, Louisiana	60,000	Evansville (Casper), Wyoming.....	24,500
Unocal Corp.	235,345	Murphy Oil U.S.A. Inc.	128,200
Wilmington (Los Angeles), California	121,500	Meraux, Louisiana.....	95,000
Rodeo (San Francisco), California	73,100	Superior, Wisconsin	33,200
Arroyo Grande (Santa Maria), California.....	40,745		
Coastal Corp., The	218,500	Castle Energy Corp.	119,500
Coastal Eagle Point Oil Co.		Indian Refining	
Westville, New Jersey	117,000	Lawrenceville, Illinois	73,000
Coastal Refining & Marketing Inc.		Powerline Oil Co.	
Corpus Christi, Texas	85,000	Santa Fe Springs, California	46,500
Coastal Mobile Refining Co.			
Chickasaw, Alabama	16,500	Cenex	117,050
Shell Oil/PMI Holdings North America		National Cooperative Refinery Assoc.	
Deer Park Refg Ltd Partnership ^d		McPherson, Kansas.....	75,600
Deer Park, Texas.....	215,900	Cenex	
Mapco Petroleum Inc.	204,000	Laurel, Montana	41,450
North Pole, Alaska.....	128,000	Total	12,534,065
Memphis, Tennessee	76,000		
		Companies with Capacity	
Fina Oil & Chemical Co.....	199,000	30,001 to 100,000 bbl/cd	
Port Arthur, Texas.....	144,000	BHP Petroleum Americas Refining Inc. ^e	
Big Spring, Texas	55,000	Ewa Beach, Hawaii	93,500
Total Petroleum Inc.	197,600		
Ardmore, Oklahoma	68,000	Tesoro Petroleum Corp.	
Arkansas City, Kansas	56,000	Kenai, Alaska	72,000
Alma, Michigan.....	45,600		
Colorado Refining Co.		LL&E Petroleum Marketing	
Commerce City, Colorado	28,000	Saraland (Mobile), Alabama.....	71,000
Diamond Shamrock Refining & Marketing Co.....	195,000		
Sunray (McKee), Texas.....	125,000	Pennzoil Co. Inc.....	69,900
Three Rivers, Texas	70,000	Pennzoil Producing Co.	
		Shreveport, Louisiana	46,200
Kerr-McGee Corp.....	154,800	Rouseville, Pennsylvania	15,700
Southwestern Refining Co. Inc.		Roosevelt, Utah	8,000
Corpus Christi, Texas	104,000		
Kerr-McGee Refining Corp.		American Ultramar Ltd	
Wynnewood, Oklahoma	43,000	Ultramar Inc.	
Cotton Valley, Louisiana	7,800	Wilmington, California	68,000
Crown Central Petroleum Corp.	152,000	Holly Corp.	63,900
Pasadena, Texas.....	100,000	Navajo Refining Co.	
La Gloria Oil & Gas Co.		Artesia, New Mexico	57,000
Tyler, Texas	52,000	Montana Refining Co.	
		Great Falls, Montana	6,900
Uno-Ven Co.		Farmland Industries Inc.	
Lemont (Chicago), Illinois.....	147,000	Coffeyville, Kansas	61,700
		United Refining Co.	
		Warren, Pennsylvania	60,000

See footnotes at end of table.

Table 40. Refiners' Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 1994

(Continued)

Refiner	Barrels per Calendar Day	Refiner	Barrels per Calendar Day
The Coastal Corp/Sinochem Pacific Refining Co. Hercules, California	50,000	Flying J Petroleum Inc. Big West Oil Co. North Salt Lake, Utah	24,000
Lion Oil Co. El Dorado, Arkansas	50,000	Ergon Inc. Vicksburg, Mississippi	23,000
Placid Refining Co. Port Allen, Louisiana	48,500	Kern Oil & Refining Co. Bakersfield, California	21,400
Paramount Acquisition Corp. Paramount Petroleum Corp. Paramount, California	46,500	Countrymark Cooperative Inc. Mount Vernon, Indiana	21,200
Pride Refining Inc. Abilene, Texas	42,750	Giant Industries of Arizona Inc. Giant Refining Co. Gallup, New Mexico	20,800
Enjet St. Rose Refining Inc. ¹ St. Rose, Louisiana	40,000	Chemoil Refining Corp. Long Beach, California	18,000
Frontier Refining Co. Cheyenne, Wyoming	38,670	Barrett Refining Corp.	17,500
Petro Star Inc.	34,300	Thomas (Custer), Oklahoma	10,500
Valdez, Alaska	26,300	Vicksburg, Mississippi	7,000
North Pole, Alaska	8,000	Gary Williams Co. Bloomfield Refining Co. Bloomfield, New Mexico	16,800
Hunt Consolidated Inc. Hunt Refining Co. Tuscaloosa, Alabama	33,500	VGS Corp.	16,800
Time Oil Co. U.S. Oil & Refining Co. Tacoma, Washington	32,400	Southland Oil Co. Sandersville, Mississippi	11,000
Total	976,620	Lumberton, Mississippi	5,800
Companies with Capacity 10,001 to 30,000 bbl/cd		Apex Oil Co., Inc. Petroleum Fuel & Terminal* 9 Long Beach, California	15,000
Amerada Hess Corp. Purvis, Mississippi	30,000	Huntway Refining Co.	14,100
Valero Refining Co. Corpus Christi, Texas	29,900	Benicia, California	8,600
Gold Line Refining Ltd. Lake Charles, Louisiana	27,600	Wilmington, California	5,500
Petroserve Ltd. Trifinery Corpus Christi, Texas	27,000	Wyoming Refining Co. Newcastle, Wyoming	12,555
Crysen Corp.	24,400	Transworld Oil U.S.A. Inc. Calcasieu Refining Co. Lake Charles, Louisiana	12,500
Crysen Refining Inc. Woods Cross, Utah	12,500	World Oil Co. Sunland Refining Corp. Bakersfield, California	12,000
Sound Refining Inc. Tacoma, Washington	11,900	Quaker State Corp. Newell, West Virginia	11,500
San Joaquin Refining Co. Inc. Bakersfield, California	24,300	Total	420,355

See footnotes at end of table.

Table 40. Refiners' Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 1994
(Continued)

Refiner	Barrels per Calendar Day	Refiner	Barrels per Calendar Day
Companies with Capacity 10,000 bbl/cd or Less		Cross Oil & Refining Co. Inc. Smackover, Arkansas	6,200
Witco Corp. Bradford, Pennsylvania	10,000	Calumet Lubricants Co. L.P. Princeton, Louisiana	6,000
Anchor Gasoline Corp. Canal Refining Co. Church Point, Louisiana	9,500	Young Refining Corp. Douglasville, Georgia	5,540
Asphalt Materials Laketon Refining Corp. Laketon, Indiana	8,700	Somerset Refinery Inc. Somerset, Kentucky	5,500
Lunday Thagard Co. South Gate, California	8,100	Age Refining & Marketing San Antonio, Texas	4,000
Cayman Resources* Cyril Petrochemical Corp. Cyril, Oklahoma	7,400	Oil Holdings Inc. Tenby Inc. Oxnard, California	4,000
Cornerstone Natural Gas, Inc. Dubach Gas Co. Lisbon, Louisiana	7,350	Unico, Inc. Intermountain Refining Co., Inc. Fredonia, Arizona	3,800
Bechtel Investment Inc. Petro Source Refining Partners Eagle Springs, Nevada	7,000	Howell Corp. Howell Hydrocarbons & Chemical Inc. Channelview, Texas	1,400
Martin Gas Sales Inc. Berry Petroleum Co. Stephens, Arkansas	6,700	Petrolite Corp. Kilgore, Texas	1,000
		Total	102,100
		U.S. Total	102,100

a Formerly Amoco Oil Co.

b Formerly Exxon Co. U.S.A.

c Formerly BP America Inc.

d Formerly Shell Oil Co.

e Formerly Pacific Resources Inc.

f Formerly Phibro Energy U.S.A. Inc.

g Formerly Edgington Oil Co.

bbl/cd = Barrels per Calendar Day.

* Refinery became operable during 1993.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 41. Operable Crude and Downstream Charge Capacity of Petroleum Refineries, January 1, 1981 to January 1, 1995

(Thousand Barrels per Stream Day, Except Where Noted)

Year/PAD District	Atmospheric Crude Oil Distillation	Downstream Charge Capacity							
		Vacuum Distillation	Thermal Cracking	Catalytic Cracking		Catalytic Hydro-cracking	Catalytic Reforming	Catalytic Hydro-treating	Fuels Solvent Deasphalting
				Fresh	Recycled				
JAN 1, 1981	19,783	7,033	1,587	5,543	594	909	4,098	8,487	NA
JAN 1, 1982	19,018	7,197	1,782	5,474	562	892	3,966	8,539	NA
JAN 1, 1983	17,871	7,180	1,715	5,402	488	883	3,918	8,354	NA
JAN 1, 1984	17,059	7,165	1,852	5,310	492	952	3,907	9,009	NA
JAN 1, 1985	16,504	6,998	1,858	5,232	507	1,053	3,750	8,897	NA
JAN 1, 1986	16,346	6,892	1,880	5,214	463	1,125	3,744	8,791	NA
JAN 1, 1987	16,460	6,935	1,928	5,251	466	1,189	3,805	9,083	230
JAN 1, 1988	16,825	7,198	2,080	5,424	381	1,202	3,891	9,170	240
JAN 1, 1989	16,568	7,225	2,073	5,324	326	1,238	3,911	9,440	245
JAN 1, 1990	16,507	7,245	2,108	5,441	314	1,282	3,896	9,537	279
JAN 1, 1991	16,557	7,276	2,158	5,559	304	1,308	3,926	9,676	271
JAN 1, 1992	16,633	7,172	2,100	5,608	280	1,363	3,907	9,644	276
JAN 1, 1993	15,935	6,892	2,082	5,540	244	1,397	3,728	9,677	269
JAN 1, 1994	15,904	6,892	2,107	5,596	191	1,376	3,875	10,616	261
PADD I	1,616	721	81	649	27	90	340	940	0
PADD II	3,483	1,413	393	1,285	37	162	905	2,384	34
PADD III	7,196	3,038	994	2,630	92	626	1,847	5,091	144
PADD IV	538	209	39	182	26	7	114	325	9
PADD V	3,071	1,511	599	840	9	491	668	1,877	74
JAN 1, 1995	16,049	6,961	2,103	5,584	184	1,375	3,877	10,679	261
PADD I	1,616	721	81	649	27	90	340	940	0
PADD II	3,505	1,413	394	1,290	37	162	906	2,402	34
PADD III	7,318	3,078	990	2,623	85	625	1,846	5,115	144
PADD IV	538	210	39	182	26	7	114	345	9
PADD V	3,071	1,529	599	840	9	491	671	1,877	74
1994-1995	144	59	-3	-2	-7	-2	3	63	0
(Net Change)									
PADD I	0	0	0	0	0	0	0	0	0
PADD II	22	0	1	5	0	0	1	19	0
PADD III	122	39	-4	-7	-7	-2	-1	24	0
PADD IV	0	1	0	0	0	0	0	20	0
PADD V	0	18	0	0	0	0	3	0	0

NA = Not available.

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

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 42. Operable Production Capacity of Petroleum Refineries, January 1, 1981 to January 1, 1995
(Thousand Barrels per Stream Day, Except Where Noted)

Year/PAD District	Production Capacity							
	Alkylates	Aromatics	Asphalt and Road Oil	Isomers	Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons/day)
JAN 1, 1981	974	299	765	131	234	276	2,054	NA
JAN 1, 1982	984	290	740	162	242	267	1,944	NA
JAN 1, 1983	960	237	722	212	241	296	2,298	NA
JAN 1, 1984	945	218	800	208	241	407	2,444	NA
JAN 1, 1985	917	215	767	219	243	424	2,572	NA
JAN 1, 1986	941	276	804	258	246	356	2,357	NA
JAN 1, 1987	974	287	788	326	250	364	2,569	23,806
JAN 1, 1988	993	289	788	465	232	368	2,418	27,639
JAN 1, 1989	1,015	290	823	469	230	333	2,501	28,369
JAN 1, 1990	1,030	290	844	456	232	341	2,607	24,202
JAN 1, 1991	1,077	292	866	490	229	367	2,527	23,875
JAN 1, 1992	1,095	290	812	494	217	356	2,644	23,811
JAN 1, 1993	1,083	286	814	499	217	393	2,674	25,940
PADD I	93	15	123	41	23	21	118	1,510
PADD II	267	50	286	167	29	74	315	4,371
PADD III	539	212	208	248	128	190	1,278	12,897
PADD IV	35	0	56	18	0	8	48	515
PADD V	152	2	120	25	32	117	1,181	5,261
PADD I	93	15	123	41	23	21	118	1,510
PADD II	267	50	286	167	29	76	315	4,371
PADD III	535	210	206	248	128	190	1,278	12,962
PADD IV	35	0	56	18	0	8	63	637
PADD V	152	2	120	25	32	117	1,181	5,261
(Net Change)								
PADD I	0	0	0	0	0	0	0	0
PADD II	0	0	0	0	0	2	0	0
PADD III	-4	-2	-2	0	0	(s)	0	65
PADD IV	0	0	0	0	0	0	15	122
PADD V	0	0	0	0	0	0	0	0

NA = Not available. MMcfd = Million cubic feet per day.

(s) = Less than 500 barrels per stream day.

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

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

**Table 43. Working Storage Capacity^a at Refineries and Gasoline Blending Plants by PAD District
as of January 1, 1994
(Thousand Barrels)**

Commodity	PAD Districts					United States
	I	II	III	IV	V	
Crude Oil	23,064	23,672	76,624	3,848	37,156	164,364
Liquefied Petroleum Products	3,101	9,164	25,783	531	1,980	40,559
Propane/Propylene	1,772	5,044	8,529	168	200	15,713
Normal Butane/Butylene	1,329	4,120	17,254	363	1,780	24,846
Other Liquids	11,939	16,737	35,723	3,603	20,118	88,120
Oxygenates	2,146	874	5,090	205	7,089	15,404
Fuel Ethanol	0	235	49	56	70	410
Methanol	68	74	808	0	55	1,005
MTBE	2,053	565	4,061	149	6,964	13,792
Other Oxygenates ^b	25	0	172	0	0	197
Gasoline Blending Components	9,793	15,863	30,633	3,398	13,029	72,716
Petroleum Products	82,172	111,055	228,156	17,825	89,737	528,945
Finished Motor Gasoline	21,740	26,130	36,420	3,847	14,509	102,646
Reformulated	0	0	3	8	0	11
Oxygenated	6,664	1,280	5,728	266	6,753	20,691
Other Finished	15,076	24,850	30,689	3,573	7,756	81,944
Jet Fuel	4,129	8,156	15,554	927	6,602	35,368
Naphtha-Type	206	1,114	1,781	310	79	3,490
Kerosene-Type	3,923	7,042	13,773	617	6,523	31,878
Kerosene	165	2,535	2,774	257	852	6,583
Distillate Fuel Oil	23,191	20,573	35,295	3,239	11,110	93,408
0.05 percent sulfur and under	7,338	9,120	14,588	1,962	6,686	39,694
Greater than 0.05 percent sulfur	15,853	11,453	20,707	1,277	4,424	53,714
Residual Fuel Oil	8,771	5,025	16,115	897	10,068	40,876
Lubricants	6,120	2,055	13,597	0	2,035	23,807
Asphalt and Road Oil	3,891	11,989	5,666	3,661	4,133	29,340
Other Products ^c	14,165	34,592	102,735	4,997	40,428	196,917
Total	120,276	160,628	366,286	25,807	148,991	^d621,988

^a The difference in volume between the maximum safe fill capacity and tank bottoms.

^b 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).

^c Includes ethane/ethylene, isobutane/isobutylene, pentanes plus, other hydrocarbons/hydrogen, unfinished oils, finished aviation gasoline, special naphthas, wax, petroleum coke, still gas, petrochemical feedstocks and miscellaneous products.

^d Includes 5,297 thousand barrels of storage capacity at shutdown refineries and shutdown gasoline blending plants, and 44,892 thousand barrels storage capacity at operating gasoline blending plants.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

**Table 44. Shell Storage Capacity^a at Refineries and Gasoline Blending Plants by PAD District
as of January 1, 1994
(Thousand Barrels)**

Commodity	PAD Districts					United States
	I	II	III	IV	V	
Crude Oil.....	25,712	26,697	91,450	4,306	42,354	190,519
Liquefied Petroleum Products.....	3,420	9,690	29,341	568	2,102	45,121
Propane/Propylene	1,978	5,299	10,198	181	214	17,870
Normal Butane/Butylene	1,442	4,391	19,143	387	1,888	27,251
Other Liquids	13,127	18,903	41,333	4,025	22,399	99,787
Oxygenates.....	2,339	952	5,744	220	7,671	16,926
Fuel Ethanol.....	0	255	62	62	85	464
Methanol	90	80	916	0	62	1,148
MTBE.....	2,221	617	4,574	158	7,524	15,094
Other Oxygenates ^b	28	0	192	0	0	220
Gasoline Blending Components	10,788	17,951	35,589	3,805	14,728	82,861
Petroleum Products.....	88,611	121,251	262,884	21,376	99,738	593,860
Finished Motor Gasoline	23,560	28,757	42,034	4,282	16,598	115,231
Reformulated	0	0	3	10	0	13
Oxygenated.....	7,196	1,378	6,425	313	7,837	23,149
Other Finished	16,364	27,379	35,606	3,959	8,761	92,069
Jet Fuel	4,369	8,856	17,335	1,023	7,255	38,838
Naphtha-Type	236	1,234	1,951	362	84	3,867
Kerosene-Type.....	4,133	7,622	15,384	661	7,171	34,971
Kerosene	182	2,765	3,141	282	971	7,341
Distillate Fuel Oil	24,937	22,048	39,531	3,480	12,462	102,458
0.05 percent sulfur and under	7,763	9,815	16,190	2,109	7,486	43,363
Greater than 0.05 percent sulfur	17,174	12,233	23,341	1,371	4,976	59,095
Residual Fuel Oil.....	9,554	5,484	18,228	968	10,938	45,172
Lubricants	6,280	2,210	15,018	0	2,161	25,669
Asphalt and Road Oil.....	4,219	12,966	6,616	3,884	4,459	32,144
Other Products ^c	15,510	38,165	120,981	7,457	44,894	227,007
Total	130,870	176,541	425,008	30,275	166,593	^d 929,287

^a The design capacity of the tank.

^b 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).

^c Includes ethane/ethylene, isobutane/isobutylene, pentanes plus, other hydrocarbons/hydrogen, unfinished oils, finished aviation gasoline, special naphthas, wax, petroleum coke, still gas, petrochemical feedstocks and miscellaneous products.

^d Includes 6,000 thousand barrels of storage capacity at shutdown refineries and shutdown gasoline blending plants, and 48,115 thousand barrels storage capacity at operating gasoline blending plants.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 45. Capacity, Fresh Feed Input and Utilization Rates of Selected Downstream Units at U.S. Refineries, 1987 to Present
(Barrels per Calendar Day, Except Where Noted)

PAD District/Item	1987	1988	1989	1990	1991	1992	1993	1994
PAD DISTRICT I								
Cokers								
Capacity	72,680	74,520	74,520	74,520	73,600	73,600	74,520	79,400
Inputs	62,737	69,918	67,027	70,942	69,814	75,505	78,553	
Utilization (percent)	85.2	93.8	89.9	95.8	94.9	102.0	102.1	
Catalytic Crackers								
Capacity	578,360	572,185	552,235	557,175	567,625	582,825	590,425	595,625
Inputs	503,110	543,120	539,595	498,830	531,167	579,344	601,852	
Utilization (percent)	87.5	96.6	97.3	88.7	92.3	98.8	101.5	
Hydrocrackers								
Capacity	66,996	66,996	78,300	82,260	81,396	81,396	81,396	76,400
Inputs	50,827	52,923	61,644	62,710	62,945	64,817	52,123	
Utilization (percent)	75.9	72.8	76.8	76.6	77.3	79.6	66.1	
PAD DISTRICT II								
Cokers								
Capacity	260,268	268,088	271,492	276,736	277,840	279,220	284,096	292,750
Inputs	233,074	261,536	249,323	258,811	263,551	267,527	275,162	
Utilization (percent)	88.2	96.9	91.0	93.3	94.6	95.0	95.4	
Catalytic Crackers								
Capacity	1,126,890	1,165,080	1,172,870	1,180,870	1,230,060	1,247,160	1,247,160	1,204,350
Inputs	998,693	987,669	994,378	1,073,205	1,100,378	1,130,388	1,110,277	
Utilization (percent)	87.1	84.5	84.5	89.0	88.8	90.6	90.6	
Hydrocrackers								
Capacity	142,821	145,521	146,151	146,601	146,601	146,601	147,501	134,080
Inputs	111,855	119,025	109,784	122,077	113,433	127,314	120,573	
Utilization (percent)	77.6	81.6	75.0	83.3	77.4	86.6	85.6	
PAD DISTRICT III								
Cokers								
Capacity	535,072	556,048	541,696	565,800	611,616	611,800	638,756	698,300
Inputs	509,482	551,776	563,011	551,953	588,458	622,557	652,674	
Utilization (percent)	93.4	100.5	101.7	93.8	96.2	99.6	97.6	
Catalytic Crackers								
Capacity	2,391,150	2,511,705	2,420,505	2,494,225	2,537,355	2,601,955	2,524,625	2,499,900
Inputs	2,075,416	2,171,074	2,219,296	2,271,704	2,265,729	2,265,992	2,359,879	
Utilization (percent)	84.7	88.0	90.3	90.3	88.2	88.4	93.9	
Hydrocrackers								
Capacity	435,600	443,700	461,700	484,650	499,050	529,650	552,690	571,040
Inputs	384,852	355,719	381,622	378,986	399,967	397,451	433,666	
Utilization (percent)	87.5	78.6	80.7	77.1	77.8	73.4	77.2	

See footnotes at end of table.

Table 45. Capacity, Fresh Feed Input and Utilization Rates of Selected Downstream Units at U.S. Refineries, 1987 to Present (Continued)
(Barrels per Calendar Day, Except Where Noted)

PAD District/Item	1987	1988	1989	1990	1991	1992	1993	1994
PAD DISTRICT IV								
Cokers								
Capacity.....	23,184	23,184	27,048	27,048	27,048	27,048	39,928	36,400
Inputs.....	15,874	15,839	17,696	19,827	20,636	28,000	33,518	
Utilization (percent).....	68.5	68.1	65.4	73.3	76.3	83.6	87.8	
Catalytic Crackers								
Capacity.....	181,355	182,780	177,717	187,597	190,190	177,935	178,410	172,155
Inputs.....	144,570	153,093	152,825	162,962	160,367	149,423	147,732	
Utilization (percent).....	79.4	84.9	83.7	86.3	87.1	83.9	84.3	
Hydrocrackers								
Capacity.....	6,210	6,210	8,910	11,070	11,070	11,070	11,970	6,200
Inputs.....	5,537	5,443	7,022	5,052	7,488	5,948	7,729	
Utilization (percent).....	89.2	72.0	70.3	45.6	67.8	51.6	85.1	
PAD DISTRICT V								
Cokers								
Capacity.....	455,768	472,144	479,504	480,608	508,852	467,268	517,868	527,654
Inputs.....	443,822	464,467	448,400	453,970	486,458	462,257	473,803	
Utilization (percent).....	95.6	97.6	93.4	91.8	99.7	93.8	90.6	
Catalytic Crackers								
Capacity.....	710,268	721,193	734,778	748,980	755,440	717,725	722,000	781,474
Inputs.....	648,441	658,893	670,340	687,748	726,460	691,822	706,471	
Utilization (percent).....	90.6	90.5	90.4	91.4	98.6	96.1	94.0	
Hydrocrackers								
Capacity.....	418,590	419,400	418,860	428,850	439,020	458,100	463,770	449,350
Inputs.....	392,992	397,410	368,726	372,411	426,112	436,820	450,077	
Utilization (percent).....	93.8	94.8	87.0	85.8	95.0	94.8	98.6	
United States								
Cokers								
Capacity.....	1,346,972	1,393,984	1,394,260	1,424,712	1,498,956	1,458,936	1,555,168	1,634,504
Inputs.....	1,264,789	1,363,536	1,345,458	1,355,504	1,428,917	1,455,847	1,513,710	
Utilization (percent).....	92.3	97.8	95.5	92.7	96.6	96.6	94.9	
Catalytic Crackers								
Capacity.....	4,988,023	5,152,943	5,058,104	5,168,846	5,280,670	5,327,600	5,262,620	5,253,504
Inputs.....	4,370,230	4,513,850	4,576,433	4,694,449	4,784,101	4,816,970	4,926,211	
Utilization (percent).....	86.2	88.4	89.5	89.9	90.2	91.0	93.7	
Hydrocrackers								
Capacity.....	1,070,217	1,081,827	1,113,921	1,153,431	1,177,137	1,226,817	1,257,327	1,237,070
Inputs.....	946,063	930,519	928,797	941,236	1,009,945	1,032,350	1,064,167	
Utilization (percent).....	87.9	84.8	81.9	80.8	84.0	83.1	85.3	

Note: • Capacities are as of January 1 of the indicated year. For 1987 through 1993, stream day capacities were adjusted to calendar day capacities by calculating calendar day capacities at 92 percent, 95 percent, and 90 percent of stream day capacities for delayed and fluid cokers, catalytic crackers, and hydrocrackers, respectively. For 1994, calendar day capacities for these units were collected for the first time on the Form EIA-820, "Annual Refinery Report." • Utilization rates represent fresh feed inputs divided by the average annual capacity. Average annual capacities were obtained by averaging the January 1 capacity for the indicated year and the January 1 capacity for the following year.

Sources: Capacities are from the Energy Information Administration Form EIA-820, "Annual Refinery Report." Inputs are from the Energy Information Administration Form EIA-810, "Monthly Refinery Report."

Table 46. Refinery Receipts of Crude Oil by Method of Transportation by PAD District, 1993
(Thousand Barrels)

Method	PAD Districts					United States
	I	II	III	IV	V	
Pipeline						
Domestic.....	1,765	623,066	782,651	114,851	333,778	1,856,111
Foreign.....	22,854	504,711	331,933	30,502	17,152	907,152
Tanker						
Domestic.....	229	0	7,254	0	514,527	522,010
Foreign.....	435,969	0	1,081,027	0	66,779	1,583,775
Barge						
Domestic.....	1,411	1,190	109,574	0	5,781	117,956
Foreign.....	21,981	0	15,977	0	10,805	48,763
Tank Cars						
Domestic.....	5,449	0	713	863	1,827	8,852
Foreign.....	0	0	0	59	0	59
Trucks						
Domestic.....	4,385	18,847	27,711	17,398	8,509	76,850
Foreign.....	0	0	0	0	0	0
Total						
Domestic.....	13,239	643,103	927,903	133,112	864,422	2,581,779
Foreign.....	480,804	504,711	1,428,937	30,561	94,736	2,539,749

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 47. Fuels Consumed at Refineries by PAD District, 1993
(Thousand Barrels, Except Where Noted)

Commodity	PAD Districts					United States
	I	II	III	IV	V	
Crude Oil	0	0	0	0	0	0
Liquefied Petroleum Gases	340	1,273	618	180	6,103	8,514
Distillate Fuel Oil.....	126	106	47	1	235	515
Residual Fuel Oil	3,445	3,577	1,354	757	1,327	10,480
Still Gas	19,642	47,676	106,480	7,224	49,738	230,760
Marketable Petroleum Coke	1,405	0	795	144	1,121	3,465
Catalyst Petroleum Coke.....	10,892	18,964	39,971	2,139	12,782	84,748
Natural Gas (million cubic feet)	32,691	99,677	499,028	17,483	87,060	735,939
Coal (thousand short tons)	123	19	0	0	0	142
Purchased Electricity (million kWh)	3,057	8,569	16,054	1,271	5,962	34,913
Purchased Steam (million pounds).....	2,339	3,260	13,216	0	13,110	31,925
Hydrogen (million cubic feet).....	W	W	W	W	W	W
Other Products ^a	169	92	206	0	597	1,064

^a Includes naphtha-type jet fuel, miscellaneous products, unfinished oils, motor gasoline blending components, asphalt and road oil, special naphthas and wax.

W=Withheld to avoid disclosure of individual company data.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 48. Reactivated and Shutdown Refineries During 1993

PAD District / Refinery	Location	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd)	Total Downstream Charge Capacity (bbl/sd)	Date Operable	Date of Last Operation	Date Shutdown
REACTIVATIONS						
PAD District II		7,400	—	—	—	—
Cyril Petrochemical Corp.	Cyril, OK	7,400	0	12/93	----	----
PAD District V		15,000	—	—	—	—
Petroleum Fuel & Terminal (Formerly Edgington Oil Co.)	Long Beach, CA	15,000	0	06/93	----	----
Total Reactivated		22,400	0	—	—	—
SHUTDOWNS						
PAD District I		48,850	31,480	—	—	—
Cibro Refining	Albany, NY	41,850	27,000	10/78	07/93	09/93
Saint Mary's Refg Co.	Saint Mary's, WV	4,000	4,480	(a)	02/93	03/93
PAD District II		61,800	130,300	—	—	—
Coastal Refg & Mktg	Augusta, KS	0	21,000	05/86	06/93	06/93
Coastal Refg & Mktg	Wichita, KS	28,800	41,300	(a)	05/93	06/93
Crystal Refining	Carson City, MI	3,000	0	(a)	10/92	09/93
Marathon	Indianapolis, IN	50,000	68,000	(a)	09/93	10/93
PAD District III		8,500	3,000	—	—	—
Dubach Gas	Dubach, LA	8,500	3,000	01/73	12/93	12/93
PAD District IV		10,000	25,900	—	—	—
Landmark Refining	Fruita, CO	10,000	25,900	01/89	01/92	11/93
PAD District V		18,500	14,800	—	—	—
Conoco	Santa Maria, CA	9,500	7,800	(a)	11/92	12/93
Sunbelt Refining	Coolidge, AZ	10,000	7,000	11/89	08/93	09/93
Total Shutdowns		165,650	205,480	—	—	—

* Refinery was operable prior to 1948.

bbl/cd = Barrels per calendar day.

bbl/sd = Barrels per stream day.

Source: Energy Information Administration (EIA) Form EIA-820, "Annual Refinery Report."

Table 49. Refinery Sales, January 1993 through February 1994

Former Owner	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd)	New Owner	Date of Sale
Amoco Oil Co. Savannah, GA	28,000	Petroleos de Venezuela Citgo Asphalt Refining Co.	05/93
BP Oil Corp. Ferndale, WA	84,300	Tosco Corp. Tosco Northwest Co.	01/94
Exxon Co. U.S.A. Bayway, NJ	200,000	Tosco Corp. Bayway Refining Co.	04/93
Edgington Oil Co. Long Beach, CA	15,000	Apex Oil Co., Inc. Petroleum Fuel & Terminal	06/93
Hawaiian Independent Refining, Inc. Ewa Beach, HA	93,500	BHP Petroleum Americas Refining, Inc.	03/93
Powerline Oil Co. Santa Fe Springs, CA	46,500	Castle Energy Corp. Powerline Oil Co.	10/93
Solomon, Inc. Phibro Energy U.S.A., Inc. Saint Rose, LA	40,000	Enjet St. Rose Refining Inc.	02/94
Shell Oil Co. Deer Park, TX	215,900	Shell Oil Co/PMI Holdings North America Deer Park Refg Ltd Partnership	04/93

bbl/cd = Barrels per calendar day.

Source: Energy Information Administration (EIA) Form EIA-820, "Annual Refinery Report."

Oxygenate Capacity

The Clean Air Act Amendments of 1990 include provisions intended to reduce toxic vehicle emissions.

Table 50. Number and Production Capacity of Operable Oxygenate Plants by PAD District and State as of January 1, 1994

PAD District and State	Number of Operable Plants			Barrels per Day						
				Fuel Ethanol	ETBE	Methanol	MTBE	TAME	TBA	Other Oxygenates ^b
	Total	Operating	Idle ^a							
Delaware	2	1	1	0	0	7,000	2,500	2,500	0	0
Florida	2	1	1	361	0	4,150	0	0	0	0
New Jersey	1	1	0	0	0	0	2,000	0	0	0
Pennsylvania	1	1	0	0	0	0	2,660	0	0	0
Virginia	2	2	0	326	815	0	0	0	0	0
Illinois	6	6	0	^c 58,409	0	0	1,450	250	0	0
Indiana	2	1	1	5,000	0	0	3,897	0	0	0
Iowa	7	7	0	^c 5,387	0	0	0	0	0	0
Kansas	4	4	0	2,386	0	0	0	0	0	0
Kentucky	1	1	0	0	0	0	3,200	0	0	0
Michigan	1	1	0	0	0	0	1,141	0	0	0
Minnesota	5	4	1	2,869	0	0	0	0	0	0
Nebraska	2	2	0	5,260	0	0	0	0	0	0
North Dakota	2	2	0	^c 500	0	0	0	0	0	0
Ohio	1	1	0	3,914	0	0	0	0	0	0
Oklahoma	1	1	0	0	0	0	1,200	0	0	0
South Dakota	2	2	0	535	0	0	0	0	0	0
Tennessee	2	2	0	3,095	0	3,590	0	0	0	0
Louisiana	10	9	1	0	0	38,458	25,975	6,800	0	0
Mississippi	1	1	0	0	0	0	2,500	0	0	0
New Mexico	2	1	1	1,220	0	0	0	0	0	0
Texas	27	24	3	0	^d 0	69,470	163,480	4,950	31,500	5,950
Colorado	2	2	0	103	0	1,794	0	0	0	0
Idaho	2	2	0	392	0	0	0	0	0	0
Montana	1	0	1	143	0	0	0	0	0	0
Wyoming	1	1	0	0	0	1,475	4,000	0	0	0
California	6	6	0	374	0	0	9,200	0	0	0
Washington	2	2	0	398	0	0	0	0	0	0
Virgin Islands	1	0	1	0	0	0	3,500	3,500	0	0

^a Plants where units are completely idle but not permanently shutdown on January 1, 1994.

^b Other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

^c Capacity for Illinois includes plants operated by Archer Daniels Midland Co. located in Decatur and Peoria, Illinois; Cedar Rapids and Clinton, Iowa; and Wahalla, North Dakota.

^d Arco Chemical Co., Corpus Christi, Texas plant has the capability of producing either 9,500 barrels per day of ETBE or 12,000 barrels per day of MTBE. As of January 1, 1994, the plant was producing MTBE and therefore is included in the MTBE production capacity data. Their ETBE production capacity of 9,500 barrels per day is not included in the ETBE production capacity data.

Source: Energy Information Administration (EIA) Form EIA-819A, "Annual Oxygenate Capacity Report."

Table 51. Fuel Ethanol Production Capacity by PAD District
(Barrels per Day)

PAD District		Location	January 1, 1994	
			Operating	Idle
PAD District I				
Bartow Ethanol Inc.....	Clearwater FL	0	361	
Butterwood Farms.....	Wilsons VA	326	0	
PAD District II				
A. E. Staley Manufacturing.....	Loudon TN	3,095	0	
Alchem Ltd.	Grafton ND	500	0	
Archer Daniels Midland Co.	IL, IA, ND	^a 51,020	0	
Broin Enterprises Inc.....	Scotland SD	205	0	
Cargill Inc.	Eddyville IA	1,860	0	
Chief Ethanol Fuels Inc.	Hastings NE	1,829	0	
Ese Alcohol Inc.	Leoti KS	48	0	
G & S Gasahol Inc.	Mankato MN	0	107	
Grain Processing Corp.....	Muscatine IA	1,566	0	
Heartland Ethanol	Aberdeen SD	330	0	
High Plains Corp.....	Colwich KS	1,370	0	
Kraft General Foods.....	Melrose MN	105	0	
Manildra Energy Corp.	Hamburg IA	405	0	
Midwest Grain Products Inc.	Atchinson KS	397	0	
Midwest Grain Products Inc.	Pekin IL	833	0	
Milwaukee Solvents & Chemical Corp.	Morris MN	310	0	
Minnesota Clean Fuels	Dundas MN	90	0	
Minnesota Corn Processors.....	Columbus NE	3,431	0	
Minnesota Corn Processors.....	Marshall MN	2,257	0	
New Energy Co. of Indiana	South Bend IN	5,000	0	
Pekin Energy Co.	Pekin IL	6,523	0	
Permeate Refining Co.....	Hopkinton IA	131	0	
Reeve Agri Energy	Garden City KS	571	0	
Roquette America Inc.	Keokuk IA	1,425	0	
(Formerly known as Hubinger Co.)				
South Point Ethanol	South Point OH	3,914	0	
Vienna Agricultural Research Center.....	Vienna IL	33	0	
(Formerly known as Vienna Correctional Center)				
PAD District III				
Giant Refining Co.....	Portales (Gallup) NM	1,000	0	
Grain Power of New Mexico Inc.....	Tucumcari NM	0	220	
PAD District IV				
AG Power of Colorado	Golden CO	^E 103	0	
Alcotech Inc.	Ringling MT	0	143	
J. R. Simplot Co.	Caldwell ID	196	0	
J. R. Simplot Co.	Heyburn ID	196	0	
PAD District V				
Georgia Pacific Corp.....	Bellingham WA	333	0	
Golden Cheese Co. of California	Corona CA	178	0	
Pabst Brewing Co.	Olympia WA	65	0	
Parallel Products Inc.	Cucamonga CA	196	0	
U.S. Total		69,641	631	

^a Reported a combined capacity for plants located in Decatur and Peoria, Illinois; Cedar Rapids and Clinton, Iowa; and Wahalla, North Dakota.

E = Estimated.

Source: Energy Information Administration (EIA) Form EIA-819A, "Annual Oxygenate Capacity Report."

Table 52. Ethyl Tertiary Butyl Ether (ETBE) Production Capacity by PAD District
(Barrels per Day)

PAD District	Location	January 1, 1994	
		Operating	Idle
PAD District I			
Amoco Oil Co.	Yorktown VA	815	0
U.S. Total			

^a Arco Chemical Co., Corpus Christi, Texas plant has the capability of producing either 9,500 barrels per day of ETBE or 12,000 barrels per day of MTBE. As of January 1, 1994, the plant was producing MTBE and therefore is included in the MTBE production capacity data. Their ETBE production capacity of 9,500 barrels per day is not included in the ETBE production capacity data.

Source: Energy Information Administration (EIA) Form EIA-819A, "Annual Oxygenate Capacity Report."

Table 53. Methanol Production Capacity by PAD District
(Barrels per Day)

PAD District	Location	January 1, 1994	
		Operating	Idle
PAD District I			
Air Products & Chemical Inc.	Pensacola FL	4,150	0
Texaco Chemical Co.	Delaware City DE	7,000	0
PAD District II			
Tennessee Eastman Div. (Formerly known as Eastman Chemical Co)	Kingsport TN	3,590	0
PAD District III			
Ashland Chemical Inc.	Plaquemine LA	10,476	0
Beaumont Methanol Corp.	Beaumont TX	18,270	0
Borden Chemicals & Plastics	Geismar LA	18,850	0
Enron Liquid Fuels	Pasadena TX	10,000	0
Georgia Gulf Corp.	Plaquemine LA	9,132	0
Hoechst Celanese Chemical Group	Bishop TX	13,000	0
Lyondell Petrochemical Co.	Channelview TX	15,200	0
Quantum Chemical Corp.	Deer Park TX	^E 13,000	0
PAD District IV			
Coastal Chemical Inc.	Cheyenne WY	1,475	0
Sand Creek Chemical Co.	Commerce City CO	1,794	0
U.S. Total			

E=Estimated.

Source: Energy Information Administration (EIA) Form EIA-819A, "Annual Oxygenate Capacity Report."

Table 54. Tertiary Amyl Methyl Ether (TAME) Production Capacity by PAD District
(Barrels per Day)

PAD District	Location	January 1, 1994	
		Operating	Idle
PAD District I			
Star Enterprise	Delaware City DE	0	2,500
PAD District II			
Marathon Oil Co.	Robinson IL	0	250
PAD District III			
Citgo Petroleum Corp.	Lake Charles LA	3,300	0
Exxon Chemical Co.	Baytown TX	1,500	0
Star Enterprise	Convent LA	3,500	0
Valero Refining Co.	Corpus Christi TX	3,450	0
U.S. Total			

Source: Energy Information Administration (EIA) Form EIA-819A, "Annual Oxygenate Capacity Report."

Table 55. Methyl Tertiary Butyl Ether (MTBE) Production Capacity by PAD District
(Barrels per Day)

PAD District	Location	January 1, 1994	
		Operating	Idle
PAD District I		4,660	2,500
Amerada Hess Corp.	Port Reading (Sewaren) NJ	2,000	0
Star Enterprise	Delaware City DE	0	2,500
Sun Co. Inc.	Marcus Hook PA	2,660	0
PAD District II		6,991	3,897
Amoco Chemical Co.	Whiting IN	0	3,897
Ashland Oil Inc.	Catlettsburg KY	3,200	0
Conoco Inc.	Ponca City OK	1,200	0
Marathon Oil Co.	Detroit MI	1,141	0
Marathon Oil Co.	Robinson IL	1,450	0
PAD District III		166,788	* 26,200
Arco Chemical Co.	Channelview TX	30,000	0
Arco Chemical Co.	Corpus Christi TX	0	* 12,000
Arco Chemical Co.	Houston TX	8,000	0
Chevron U.S.A. Inc.	Pascagoula MS	2,500	0
Citgo Petroleum Corp.	Lake Charles LA	2,675	0
Citgo Refining & Chemical Inc.	Corpus Christi TX	1,650	0
Conoco Inc.	Westlake LA	1,500	0
Crown Central Petroleum Corp.	Pasadena TX	0	1,500
Deer Park Refining Ltd. Partnership (Formerly known as Shell Oil Co.)	Deer Park TX	0	5,700
Diamond Shamrock Refining Co. LP	Sunray (McKee) TX	1,830	0
Enron Liquid Fuels	LaPorte TX	15,300	0
Exxon Chemical Co.	Baton Rouge LA	7,000	0
Exxon Chemical Co.	Baytown TX	3,200	0
Exxon Co. U.S.A.	Baytown TX	7,000	0
Fina Oil & Chemical Co.	Big Spring TX	500	0
Global Octanes	Houston TX	12,500	0
Lyondell Petrochemical Co.	Channelview TX	4,000	0
Mobil Oil Corp.	Beaumont TX	2,400	0
Oxy Chemical.	Houston (Alvin) TX	2,000	0
Phibro Energy USA Inc.	Houston TX	1,600	0
Phibro Energy USA Inc.	Krotz Springs LA	1,800	0
Phibro Energy USA Inc.	Texas City TX	1,800	0
Phillips 66 Co.	Sweeny TX	0	3,000
Shell Oil Co.	Norco LA	7,500	0
Southwestern Refining Co. Inc.	Corpus Christi TX	1,500	0
Star Enterprise	Convent LA	2,500	0
Texaco Chemical Co.	Port Neches TX	10,000	0
Texas Petrochemicals Corp.	Houston TX	20,000	0
TransAmerican Refining Co.	Norco LA	0	3,000
Valero Refining Co.	Corpus Christi TX	18,000	0
PAD District IV		4,000	0
Coastal Chemical Inc.	Cheyenne WY	4,000	0
PAD District V		9,200	0
Arco Products Co.	Carson City CA	2,200	0
Chevron U.S.A. Inc.	El Segundo CA	2,300	0
Chevron U.S.A. Inc.	Richmond CA	2,500	0
Tosco Refining Co.	Martinez (Avon) CA	E 2,200	0
U.S. Total		191,808	* 31,597
Amerada Hess Corp.	St. Croix VI	0	3,500

* Arco Chemical Co., Corpus Christi, Texas plant has the capability of producing either 9,500 barrels per day of ETBE or 12,000 barrels per day of MTBE. As of January 1, 1994, the plant was producing MTBE and therefore is included in the MTBE production capacity data. Their ETBE production capacity of 9,500 barrels per day is not included in the ETBE production capacity data.

E=Estimated.

Source: Energy Information Administration (EIA) Form EIA-819A, "Annual Oxygenate Capacity Report."

Table 56. Tertiary Butyl Alcohol (TBA) Production Capacity by PAD District
(Barrels per Day)

PAD District	Location	January 1, 1994	
		Operating	Idle
PAD District III		31,500	0
Arco Chemical Co.	Bayport TX	31,500	0
U.S. Total		31,500	0

Source: Energy Information Administration (EIA) Form EIA-819A, "Annual Oxygenate Capacity Report."

Table 57. Other Oxygenates^a Production Capacity by PAD District
(Barrels per Day)

PAD District	Location	January 1, 1994	
		Operating	Idle
PAD District III		5,950	0
Deer Park Refining Ltd. Partnership	Deer Park TX	5,950	0
(Formerly known as Shell Oil Co.)			
U.S. Total		5,950	0

^a Other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).
Source: Energy Information Administration (EIA) Form EIA-819A, "Annual Oxygenate Capacity Report."

Table 58. Production Capacity of Operable Oxygenate Plants by PAD District
January 1, 1993 - January 1, 1995
(Barrels per Day)

Year/PAD District	Fuel Ethanol	ETBE ^a	Methanol	MTBE ^a	TAME	TBA	Other Oxygenates ^b
PADD I	667	815	11,150	7,160	2,500	0	0
PADD II	87,355	0	3,590	10,888	250	0	0
PADD III	1,220	0	107,928	191,955	11,750	31,500	5,950
PADD IV	638	0	3,269	4,000	0	0	0
PADD V	772	0	0	9,200	0	0	0
PADD I	NA	815	11,150	7,160	2,500	0	0
PADD II	NA	0	6,490	10,888	250	0	0
PADD III	NA	0	109,471	235,805	13,890	31,500	5,950
PADD IV	NA	0	3,269	4,000	0	0	0
PADD V	NA	0	0	11,700	4,000	0	0
(Net Change)							
PADD I	NA	0	0	0	0	0	0
PADD II	NA	0	2,900	0	0	0	0
PADD III	NA	0	1,543	43,850	2,140	0	0
PADD IV	NA	0	0	0	0	0	0
PADD V	NA	0	0	2,500	4,000	0	0

^a Arco Chemical Co., Corpus Christi, Texas plant has the capability of producing either 9,500 barrels per day of ETBE or 12,000 barrels per day of MTBE. Refer to Tables 52 and 55 for current plant status.

^b Other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

NA = Not available.

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

Source: Energy Information Administration (EIA), Form EIA-819A, "Annual Oxygenate Capacity Report."

Appendix A

District Descriptions and Maps

Tank trucks are used to distribute heating oil to remote areas.

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

Appendix B

Explanatory Notes

The cluster of pipes and valves that control the flow of oil at the mouth of an oil well is what oilmen call a "Christmas Tree."

Explanatory Notes

The following Explanatory Notes are provided to assist in understanding and interpreting the data presented in this publication.

- Note 1. Petroleum Supply Reporting System
- Note 2. Monthly Petroleum Supply Reporting System
- Note 3. Form EIA-820: Annual Refinery Report
- Note 4. Form EIA-819A: Annual Oxygenate Capacity Report
- Note 5. Technical Notes for Detailed Statistics Tables
- Note 6. Domestic Crude Oil Production
- Note 7. Export Data
- Note 8. Quality Control and Data Revision
- Note 9. Frames Maintenance
- Note 10. Descriptive Monthly Statistics
- Note 11. Practical Limitations of Data Collection Efforts
- Note 12. 1981 Changes in the Petroleum Supply Reporting System
- Note 13. 1983 Changes in the Petroleum Supply Reporting System
- Note 14. 1984 Changes in the Petroleum Supply Reporting System
- Note 15. 1985 Changes in the Petroleum Supply Reporting System
- Note 16. 1986 Changes in the Petroleum Supply Reporting System
- Note 17. 1987 Changes in the Petroleum Supply Reporting System
- Note 18. 1989 Changes in the Petroleum Supply Reporting System
- Note 19. 1990 Changes in the Petroleum Supply Reporting System
- Note 20. 1993 Changes in the Petroleum Supply Reporting System

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:

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-819A	"Annual Oxygenate Report"
EIA-820	"Annual 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 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, natural gas plant and oxygenate plant operations data; refinery, bulk terminal, oxygenate plant, 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, "Timeliness and Accuracy of Petroleum Supply Data." The last article was published in the August 1993 issue and evaluated the accuracy of the data for 1992 compared with previous years.

The Form EIA-819M, "Monthly Oxygenate Telephone Report," is used to collect preliminary data on production, imports, 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 reporting on Form EIA-819A, "Annual Oxygenate Capacity Report." Data are published in Appendix D of the *PSM* and also in the *WPSR*.

The Form EIA-819A, "Annual Oxygenate Capacity Report," is used to collect data on current and projected production capacity of oxygenates and annual production and end-of-year inventories of fuel ethanol. The results of this survey are published in the Oxygenate Capacity section of the *PSA*, Volume 1 and is described in more detail in Explanatory Note 4.

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 and is described in more detail in Explanatory Note 3.

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 and 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 240 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. Approximately 330 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 160 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 720 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 reporting on the Form EIA-819A, "Annual Oxygenate Capacity Report." 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; (3) operators of bulk terminals, bulk stations, blending plants, and other nonrefinery facilities that store and/or blend oxygenates; and (4) importers of oxygenates (importer of record) located in or importing oxygenates into the 50 States and the District of Columbia. Approximately 100 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, oxygenate stocks, and oxygenate imports) during 1993. 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 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, stocks, and imports 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 EIA-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 Energy Information Administration 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 Table 16, "Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts" 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 PSA tables listed below. In addition, complementary suppression is performed to avoid any residual disclosure.

- Table 16, "Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts," (inputs of oxygenates)
- Table 18, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts," (stocks of oxygenates)
- Table 30, "Stocks of Crude Oil and Petroleum Products by PAD District," (stocks of oxygenates)
- Table 31, "Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products," (all products)

With the exception of the tables listed above, the tables in the PSA 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. Form EIA-820: Annual Refinery Report

Refinery capacity data collection was begun in 1918 by the Bureau of Mines, then in the Department of Commerce, and was operated on a voluntary basis until 1980. In 1980, the mandatory Energy Information Administration (EIA) Form EIA-177, *Capacity of Petroleum Refineries*, was implemented. Information on refining capacity was expanded to include not only current year operations, two-year projections, and refinery input/production data. Working storage capacity data was also added to the form and product categories were added for total coverage. Information on refinery downstream facilities was expanded to include a breakdown of thermal operations and to add vacuum distillation, catalytic hydrotreating and hydrorefining. Production capacity was also added to include information on isomerization, alkylation, aromatics, asphalt/road oil, coking, lubricants and hydrogen.

In 1983, the form was revised to improve the consistency and quality of the data collected by the EIA and redesignated as Form EIA-820, "Annual Refinery Report." Two sections for data previously reported monthly were added: (1) refinery receipts of crude oil by method of transportation, and (2) fuels consumed for all purposes at refineries. Also, the second year projections on refining capacity were eliminated. As a result of a study conducted by the EIA evaluating motor gasoline data collected by the Federal Highway Administration (FHWA) and by the EIA, motor gasoline blending plants were included for the first time to the respondent frame in order to produce more accurate statistics on the production of motor gasoline.

In 1987, the form was revised to reduce respondent burden and to better reflect current refinery operations through updated terminology. Information on projected input/production of refinery processing facilities was deleted. Several categories under catalytic hydrotreating were combined: naphtha and reformer feeds were combined into a single category as well as residual fuel oil and other. Thermal cracking types, gas oil and "other" were also combined into a single category. Catalytic reforming types, conventional and bi-metallic were replaced with low and high pressure processing units. Two new categories were added: fuels solvent deasphalting was added to downstream charge capacity and sulfur recovery was added to production capacity.

In 1994, the form was revised to enable EIA to calculate utilization rates for certain downstream processing units and to reflect storage capacity of fuels mandated by the Clean Air Act Amendments of 1990. Additions to the form included calendar day downstream charge capacity for fluid and delayed coking, catalytic cracking, and catalytic hydrocracking. Also storage capacity categories for reformulated, oxygenated, and other finished motor gasoline were added, as well as oxygenate storage capacity and separate categories for high and low sulfur distillate fuel oil.

Respondent Frame

The respondent frame consists of all operating and idle petroleum refineries (including new refineries under construction), motor gasoline blending plants, shutdown refineries and shutdown motor gasoline blending plants with usable storage capacity, located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and other U.S. possessions. As of January 1, 1994, there were 179 refineries and 32 motor gasoline blending plants operating in the 50 States. The following is a list of motor gasoline blending plants and their locations that operated during 1993.

Citgo Petroleum Corp. Linden, NJ	Phillips 66 Co. Commerce City, CO
Citgo Petroleum Corp. East Chicago, IN	Santa Fe Pacific Pipeline Phoenix, AZ
Citgo Petroleum Corp. East Braintree, MA	Santa Fe Pacific Pipeline Reno, NV
Citgo Petroleum Corp. Richmond, VA	Shell Oil Co. Carson, CA
Citgo Petroleum Corp. Bryan, TX	Sinclair Oil Corp. Denver, CO
Citgo Petroleum Corp. Waco, TX	Stolt Terminal Inc. Perth Amboy, NJ

GATX Terminal Corp. Pasadena, TX	Texaco, Inc. Phoenix, AZ
GATX Terminal Corp. Carteret, NJ	Texaco, Inc. Tucson, AZ
Golden West Refg. Co. Santa Fe Springs, CA	Thriftway Refg. Co. Bloomfield, NM
Hartford/Woodriver Term. Hartford, IL	Unocal Beaumont, TX
International Matex Tank Terminals Bayonne, NJ	Westec Petroleum Inc. Grand Junction, CO
Northville Industries Linden, NJ	Westec Petroleum Inc. Denver, CO
Oiltanking Houston Inc. Houston, TX	Westec Petroleum Inc. Woods Cross, UT
Phillips 66 Co. East St. Louis, IL	Wickland Pipeline Co. Crockett, CA
Phillips 66 Co. East Chicago, IN	Williams Pipeline Co. Des Moines, IA
Phillips 66 Co. Decatur, IL	Williams Pipeline Co. Iowa City, IA

The respondent frame is maintained by monitoring the monthly Form EIA-810, "Monthly Refinery Report," and industry publications for changes and developments in the petroleum industry such as refinery sales, mergers and new operations.

Description of Survey Form

The Form EIA-820 is used to collect data on fuels consumed for all purposes at the refinery during the preceding year; refinery receipts of crude oil by method of transportation during the preceding year; current and next year projections for operable atmospheric crude oil distillation capacity, downstream charge capacity and production capacity; and current year working and shell storage capacity for crude oil and petroleum products at the refinery.

Collection Methods

The Form EIA-820 is sent to respondents in December. Survey forms can be submitted by mail or facsimile. Completed forms are required to be postmarked by the 15th day of February of the current report year. Receipt of the reports is monitored using an automated respondent mailing list. Telephone follow-up calls are made to secure

responses from those companies failing to report by February 15th.

Response Rate

The response rate for the Form EIA-820 is normally very high. Data are estimated and non-compliance procedures are implemented for those companies still not reporting data by close-out for the report year. For the January 1, 1994 survey, there were no nonrespondents.

Data Imputation

Imputation is performed for companies that fail to file prior to the publication deadline. For the January 1, 1994 survey, there were no nonrespondents; therefore, imputation was not necessary. However, when nonresponse does occur, values for these companies are imputed from data reported on the previous year's Form EIA-820 and/or from data reported on Form EIA-810, "Monthly Refinery Report," for that company. For most surveyed items, the value imputed for nonrespondents is the value that company reported on the Form EIA-820 for the previous year. For three categories of information however, the imputed value is also based on their data from the Form EIA-810 as follows:

Section 1: Fuel, Electricity, and Steam Consumed for all Purposes at Refineries

Data are imputed for crude oil, distillate and residual fuel oil, liquefied petroleum gases, still gas, and marketable and catalyst petroleum coke based upon data reported on the monthly Form EIA-810. A ratio of the fuel use reported on the previous year's annual report to the fuel use and losses reported on the aggregated monthly data for the previous year is derived for these product categories. This ratio is then applied to the monthly aggregated data for the current year for similar product categories.

Estimates for natural gas, coal, electricity and steam are taken directly from data reported on the previous year's annual Form EIA-820.

Section 2: Refinery Receipts of Crude Oil by Method of Transportation

The imputation methodology for this section is based on data reported on both the monthly Form EIA-810 and the annual Form EIA-820. Annual refinery receipts of domestic and foreign crude oil for a nonrespondent are imputed by aggregating the values for the refinery on the monthly survey. These values are allocated to the method of transportation by using the percentages reported for the refinery in the previous year. The difference between the

values reported on the two surveys by all respondents in 1994 is 0.6 percent.

Section 3: Operable and Storage Capacity as of January 1

Operable atmospheric crude oil distillation capacity in barrels per calendar day is collected on the monthly Form EIA-810 as of the first day of each month and on the annual Form EIA-820 as of January 1. As part of the editing process for the Form EIA-820, these two values are compared. Companies are contacted and any discrepancies are resolved by the time of publication. Imputed values for operable atmospheric crude oil distillation capacity in barrels per calendar day are taken directly from the January Form EIA-810. A barrels per stream day capacity is then derived by dividing the reported barrels per calendar day capacity by .95.

Current year and projected year data for downstream charge capacity, production capacity, and data for working and shell storage capacity are taken directly from the previous year's annual report.

Confidentiality

The Office of Legal Counsel of the Department of Justice concluded on March 20, 1991, that the Federal Energy Administration Act requires the Energy Information Administration to provide company-specific data to the Department of Justice, or to any other 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.

Information on operable atmospheric crude oil distillation capacity, downstream charge capacity, and production capacity on Form EIA-820 are not considered as confidential, and historically have not been treated as such. Company identifiable data are published in the *Petroleum Supply Annual* (PSA), Volume 1, Tables 38 and 39.

Other data on the Form EIA-820 are kept confidential and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C.552, Department of Energy (DOE) regulations, 10 C.F.R.1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C.1905.

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 regula-

tions. 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.

The data collected on Form EIA-820, "Annual Refinery Report," is used to report aggregate statistics on and conduct analyses of the operation of U.S. petroleum refineries and blending plants. The data appear in EIA publications such as *PSA*, and the *Annual Energy Review*. Company specific data are also provided to other DOE offices for the purpose of examining specific refinery operations in the context of emergency response planning and actual emergencies.

The tables pertaining to refinery receipts of crude oil by method of transportation and fuels consumed at the refinery published in the *PSA* 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.

Quality Control

There are two types of errors usually associated with data produced from a survey - sampling errors and nonsampling errors. Because estimates from the Form EIA-820 survey are based on a complete census of the frame of petroleum refineries and motor gasoline blending plants, there is no sampling error in the data presented in this report. The data, however, are subject to nonsampling errors. Nonsampling errors are those which can arise from: (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. Quality control procedures are employed in the collection and editing operations to minimize misrepresentation and misreporting. Nonresponse follow-up procedures are employed to reduce the number of nonrespondents, and procedures employed to impute missing data, introduce a

minimal amount of error, given the relatively small volume of imputed data.

Resubmissions

Resubmissions are required whenever an error greater than 5 percent of the true value is discovered. In the event of a reporting error, company reports are updated after contact with the company and are followed up by corrected report resubmissions. Late submissions or resubmissions received after the publication date are entered into a "working" file. This file contains the most up-to-date data for the Form EIA-820 and is used to edit next year's data.

Note 4. Form EIA-819A: Annual Oxygenate Capacity Report

The Clean Air Act Amendments of 1990, mandated several changes to the composition of motor gasoline. Among these is the requirement for the addition of liquid components containing oxygen to motor gasoline starting in the Fall of 1992. Because of their importance to gasoline supply, the Energy Information Administration (EIA) began collecting oxygenate production capacity as of January 1993 in order to monitor the availability of oxygenates in the United States.

Respondent Frame

The respondent frame consists of all operating and idle facilities that produce or distill oxygenates (including fuel-grade ethanol producers, methyl tertiary butyl ether (MTBE) plants, petrochemical plants and refineries that produce oxygenates as part of their operations), and new plants under construction located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and other U.S. possessions. As of January 1, 1994, there were 98 oxygenate producers.

The respondent frame is maintained by monitoring industry periodicals that report changes in status (births, deaths, sales, and acquisitions) of oxygenate facilities, producing, transporting, importing, and/or storing oxygenates.

Description of Survey Form

The Form EIA-819A is used to collect data on current and projected production capacities. The following oxygenates are collected: fuel ethanol, ethyl tertiary butyl ether (ETBE), methanol, MTBE, tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other oxygenates (i.e., includes other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol)).

Collection Methods

The Form EIA-819A is sent to respondents in December. Survey forms can be submitted by mail or facsimile. Completed forms are required to be postmarked by the 15th day of February of the current report year. Receipt of the reports is monitored using an automated respondent mailing list. Telephone follow-up calls are made to secure responses from those companies failing to report by February 15th.

Response Rate

Data are imputed and non-compliance procedures are implemented for those companies still not reporting data by close-out for the report year. The response rate for the January 1, 1994 survey, was very high with only two nonrespondents.

Data Imputation

Imputation is performed for companies that fail to file prior to the publication deadline. For the January 1, 1994 survey, one fuel ethanol and one MTBE U.S. producer did not respond. Their total operable capacity for each oxygenate is estimated to be less than 0.01 percent of the U.S. total. Data for these respondents were imputed using previous year's data.

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 other 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 on current year "production capacity" is not considered as confidential. Company identifiable data are published in the *Petroleum Supply Annual*, Volume 1, Tables 51 through 57.

Projected year production capacity is kept confidential and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. section 552, the DOE regulations, 10 C.F.R. section 1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. section 1905.

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.

Quality Control

There are two types of errors usually associated with data produced from a survey - sampling errors and nonsampling errors. Because estimates from the Form EIA-819A survey are based on a complete census of the frame of oxygenate producers, there is no sampling error in the data presented in this report. The data, however, are subject to nonsampling errors. Nonsampling errors are those which can arise from: (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. Quality control procedures are employed in the collection and editing operations to minimize misrepresentation and misreporting. Nonresponse follow-up procedures are employed to reduce the number of nonrespondents, and procedures employed to impute missing data, introduce a minimal amount of error, given the relatively small volume of imputed data.

For the January 1, 1994 survey, several reporting issues were identified when generating publication table. These issues were resolved as follows:

- (1) The Arco Chemical Co., Corpus Christi, Texas plant reported the capability of producing either 9,500 barrels per day of ETBE or 12,000 barrels per day of MTBE. ETBE or MTBE can be produced at this site but not simultaneously; the unit must be designated for production of only one product. As of January 1, 1994, the plant was producing MTBE and therefore was included in the MTBE production capacity data. Their ETBE production capacity of 9,500 barrels per day was idle on January 1, 1994 and was not included

in the ETBE production capacity data to avoid double counting of the oxygenate production capacity of this specific unit.

- (2) Archer Daniels Midland (ADM) Co. reported a combined fuel ethanol production capacity for their five locations: Decatur and Peoria, Illinois; Cedar Rapids and Clinton, Iowa; and Cenex Agri-Fuels located in Wahalla, North Dakota. The combined fuel ethanol production capacity was included in the total fuel ethanol production capacity for the State of Illinois. However, the number of operable plants located in each state reflects the correct location of the five plants.

In addition, ADM did not provide a projected year fuel ethanol production capacity siting an insufficient basis with which to project its future fuel ethanol production capacity including the period covering calendar year 1995 until regulations are adopted defining ethanol's role in the oxygenates program in the Clean Air Act. Because ADM accounts for such a large portion of the fuel ethanol production capacity, publication of projected production capacity and net change capacity for fuel ethanol was not feasible.

Resubmissions

Resubmissions are required whenever an error greater than five percent of the true value is discovered. In the event of a reporting error, company reports are updated after contact with the company and are followed up by corrected report submissions. Late submissions or resubmissions received after the publication date are entered into a "working" file. This file contains the most up-to-date data for the Form EIA-819A and is used to edit next year's data.

Note 5. Technical Notes for Detailed Statistics Tables

The detailed statistics tables in the *Petroleum Supply Annual* provide complete supply and demand information for the previous 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 6 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 11 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 alcohol, 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 nega-

tive 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 the prior year'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, liquefied 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 products 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 inter-district 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/alcohol 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 6. 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 and Gas 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 Mineral Management Service, and the Conservation Committee of California Oil and Gas Producers. The EIA incorporates production data into its Crude Oil Production System (COPS) as the data are received from the reporting agencies. EIA publications show portions of this database at specific points in time. Table 14 of this publication presents the 1993 crude oil production data received by the EIA as of April 1994. Crude oil production data for 1993 received after April 1994 will be published later as an appendix in the following year's *Petroleum Supply Annual* (PSA). Table C1 of this publication presents the 1992 crude oil production a year after it was published in the *PSA* 1992.

Note 7. 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 Annual* 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 8. 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, 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 Supply 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 of the PSM.

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 9. Frames Maintenance

The Petroleum Supply Division (PSD) 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 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 the monthly and annual frames maintenance activities and to provide more comprehensive coverage, the PSD periodically conducts a comprehensive frames investigation. These investigations result in the reassessment and recompilation of the complete frame for each survey. The effort also impact of potential frame changes on the historical time serves 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.

Changes in Survey Frames

Beginning in January 1981, the Energy Information Administration (EIA) expanded its universe to include non-refinery blenders; redefined motor gasoline into two categories (finished leaded and finished unleaded); and separated blending components from finished motor gasoline as a reporting category. Refer to Explanatory Note 12 for future discussion.

In January 1981, 1983, and 1984 numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock change calculations. Table B1 displays the end-of-year stocks, in million barrels using the expanded coverage (new basis).

Table B1. New Basis Stocks¹
(Million Barrels)

Commodity	1980	1982	1983
Crude Oil			
Total	488	645	723
Other Primary	380	351	379
Crude Oil and			
Petroleum Products	1,425	1,461	1,454
Motor Gasoline			
Total	263	244	222
Finished	214	202	186
Distillate Fuel Oil	205	186	140
Residual Fuel Oil	91	69	49
Jet Fuel			
Total	42	39	39
Kerosene-type	36	32	32
Propane/Propylene	69	57	55
Liquefied			
Petroleum Gases	128	102	108
Other Petroleum			
Products	207	219	210

¹ Stocks as of December 31.

Beginning in January 1986, as a result of frames maintenance activities, 39 respondents were added to the monthly survey frames: 2 motor gasoline blenders, 30 bulk terminal operators, 3 pipeline operators, 3 crude oil stock holders, and 1 tanker and barge operator. Table B2 shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Also, beginning in January 1986, a major petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, "Monthly Bulk Terminal Report," and on Form EIA-816, "Monthly Natural Gas Liquids Report" for two facilities were combined with data reported for two refineries on Form EIA-810, "Monthly Refinery Report." The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which showed a decrease in natural gas

Table B2. Impact of New Respondents to December 1985 PSM Data

Product	Refinery Production (thousand barrels per day)		Stocks ^a (thousand barrels)	
	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGLs & LRGs	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	—	—	2,314	318,695

^a Stocks as of December 31, 1985.

liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Note 10. Descriptive Monthly Statistics

The universe of each of the Petroleum Supply surveys (refinery, bulk terminal, pipeline, crude oil stock, import, etc.) is relatively small and ever-changing due to company births, deaths, mergers and splits. The frequency distributions of the petroleum supply variables are non-normal, highly variable, positive skewed and leptokurtic; that is, there are many small units and few large ones. Zeros often dominate the responses; that is, not all of the sampling units produce and/or store all products.

The statistics described in Table B3 were calculated from the monthly surveys over a 12-month period and display the following petroleum supply variables:

- (1) The number of active sampling units (respondents).
- (2) The number of sampling units reporting nonzero values (nonzero respondents).
- (3) The average of nonzero values reported in thousand barrels (average).
- (4) The standard deviation of nonzero values reported in thousand barrels (standard deviation).

Note 11. 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

Table B3. Descriptive Statistics for Selected Petroleum Supply Variables

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Refinery Gross Input to Atmospheric Crude Oil Distillation Units												
Respondents	240	240	235	237	237	238	236	236	235	237	234	235
Nonzero Respondents	167	169	171	171	174	174	174	173	171	171	170	169
Average	2436	2170	2449	2424	2505	2485	2576	2516	2464	2520	2458	2526
Standard Deviation	2581	2299	2725	2613	2669	2668	2783	2628	2618	2661	2614	2735
Refinery Crude Oil Input												
Respondents	240	240	235	237	237	238	236	236	235	237	234	235
Nonzero Respondents	174	175	175	177	178	180	180	179	179	175	175	177
Average	2305	2058	2338	2295	2408	2355	2434	2398	2320	2432	2346	2377
Standard Deviation	2524	2243	2646	2536	2618	2578	2663	2596	2573	2633	2556	2699
Refinery Finished Motor Gasoline Gross Production												
Respondents	240	240	235	237	237	238	236	236	235	237	234	235
Nonzero Respondents	172	168	163	161	162	161	158	159	165	166	164	164
Average	1316	1197	1313	1332	1419	1379	1434	1414	1359	1395	1394	1445
Standard Deviation	1439	1292	1377	1348	1457	1413	1458	1459	1447	1498	1519	1590
Refinery Distillate Fuel Oil Gross Production												
Respondents	240	240	235	237	237	238	236	236	235	237	234	235
Nonzero Respondents	165	165	164	167	167	170	168	166	166	167	166	164
Average	566	495	571	566	571	561	609	612	605	660	653	669
Standard Deviation	591	522	643	615	595	594	664	700	632	678	711	754
Refinery Residual Fuel Oil Gross Production												
Respondents	240	240	235	237	237	238	236	236	235	237	234	235
Nonzero Respondents	131	129	128	127	130	128	127	124	128	127	125	127
Average	206	195	212	221	227	200	199	204	207	214	224	219
Standard Deviation	307	275	296	314	327	262	276	281	299	286	329	318
Refinery Finished Motor Gasoline Stocks												
Respondents	240	240	235	237	237	238	236	236	235	237	234	235
Nonzero Respondents	172	173	170	171	170	170	168	165	165	166	165	167
Average	320	357	345	325	317	314	293	279	309	317	335	358
Standard Deviation	340	430	400	378	349	352	336	308	393	362	378	450
Bulk Terminal Finished Motor Gasoline Stocks												
Respondents	342	341	339	335	335	330	330	331	331	331	333	332
Nonzero Respondents	152	149	150	152	151	151	151	149	148	148	149	148
Average	565	563	514	494	522	527	493	485	479	486	515	516
Standard Deviation	1184	1184	1079	1022	1076	1098	1032	1026	1003	1018	1082	1043
Pipeline Finished Motor Gasoline Stocks												
Respondents	86	86	86	86	86	86	85	85	85	85	85	85
Nonzero Respondents	55	56	56	56	55	56	56	55	55	56	54	54
Average	1033	1007	949	952	983	915	946	881	896	911	945	943
Standard Deviation	2254	2244	2183	2050	2161	2016	2032	1849	1991	2195	2145	2143
Refinery Distillate Fuel Oil Stocks												
Respondents	240	240	235	237	237	238	236	236	235	237	234	235
Nonzero Respondents	192	193	192	191	190	192	191	190	189	192	191	192
Average	205	182	182	166	181	184	218	217	220	247	255	242
Standard Deviation	292	239	189	196	234	240	285	307	327	409	409	395
Bulk Terminal Distillate Fuel Oil Stocks												
Respondents	342	341	339	335	335	330	330	331	331	331	333	332
Nonzero Respondents	223	223	223	221	219	221	219	221	217	217	223	220
Average	295	233	187	203	215	234	258	283	302	327	329	300
Standard Deviation	727	534	447	483	511	553	607	706	732	714	744	664
Pipeline Distillate Fuel Oil Stocks												
Respondents	86	86	86	86	86	86	85	85	85	85	85	85
Nonzero Respondents	57	57	57	56	56	55	54	53	56	55	56	56
Average	449	409	432	412	379	418	415	461	429	490	482	499
Standard Deviation	1341	1055	1217	1028	938	1006	1120	1214	1113	1236	1204	1329
Refinery Residual Fuel Oil Stocks												
Respondents	240	240	235	237	237	238	236	236	235	237	234	235
Nonzero Respondents	149	147	147	146	144	143	142	142	140	139	139	138
Average	128	133	123	132	134	139	133	134	134	148	143	128
Standard Deviation	207	207	172	191	188	218	202	212	201	271	260	194
Bulk Terminal Residual Fuel Oil Stocks												
Respondents	342	341	339	335	335	330	330	331	331	331	333	332
Nonzero Respondents	65	64	63	65	65	65	65	64	63	67	68	68
Average	379	347	350	339	363	395	358	396	391	387	413	388
Standard Deviation	706	658	686	732	767	851	736	797	709	760	866	845
Refinery Crude Oil Stocks												
Respondents	240	240	235	237	237	238	236	236	235	237	234	235
Nonzero Respondents	176	176	175	175	175	176	176	176	174	174	173	172
Average	567	556	561	588	599	604	572	539	532	557	566	542
Standard Deviation	716	656	627	637	663	699	661	620	622	628	646	605
Pipeline/Tank Farm Crude Oil Stocks												
Respondents	163	162	161	162	163	162	162	163	163	163	163	163
Nonzero Respondents	122	122	121	121	124	122	123	124	124	124	124	124
Average	1583	1657	1683	1732	1727	1725	1762	1663	1601	1623	1653	1689
Standard Deviation	3011	3181	3224	3372	3436	3279	3509	3257	3057	3176	3244	3456

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 B4).

Table B4. Finished Motor Gasoline Product Supplied Adjustment, 1992 and 1993 (Thousand Barrels per Day)

Year/Month	Product Supplied 1992 Basis	Fuel Ethanol Adjustment	Motor Gasoline Blending Component Adjustment	Product Supplied 1993 Basis	Difference
1992					
January	6,869	68	-8	6,929	60
February	6,963	68	-6	7,025	62
March	7,137	62	59	7,258	121
April	7,238	68	49	7,355	117
May	7,328	55	36	7,419	91
June	7,460	64	11	7,535	75
July	7,639	52	75	7,766	127
August	7,380	66	91	7,537	157
September	7,344	54	43	7,441	97
October	7,338	76	-14	7,400	62
November	7,102	91	68	7,261	159
December	7,396	100	66	7,562	166
Average	7,268	69	39	7,376	108
1993					
January	--	61	-59	6,639	--
February	--	67	-61	7,112	--
March	--	70	15	7,389	--
April	--	61	-32	7,435	--
May	--	58	-3	7,585	--
June	--	63	-5	7,700	--
July	--	62	-19	7,785	--
August	--	48	54	7,864	--
September	--	68	79	7,607	--
October	--	69	-72	7,382	--
November	--	84	-72	7,533	--
December	--	81	48	7,661	--
Average	--	66	-10	7,476	--

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

Source: • Fuel Ethanol Adjustment - 1992, Energy Information Administration (EIA), *Petroleum Supply Monthly*, Appendix D. • Motor Gasoline Blending Component Adjustment - 1992 and 1993, EIA, *Petroleum Supply Annual*, Volumes I and II.

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 13 published in the *PSA*.

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*, 1991.

Motor Gasoline Blending Component Adjustment

Prior to 1993, the EIA published a "product supplied" for motor gasoline blending components. Since these components 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 13 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 under-reported 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 12. 1981 Changes in the Petroleum Supply Reporting System

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration (EIA) in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

The EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. Estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). Table B5 provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied.

The EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Table B5. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA ^a
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

^a FHWA gasoline statistics based on data from Federal Highway Administration, *Estimate of Total Gasoline Use*, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate fuel oil, and one-third to residual fuel oil.

Table B6. Distillate and Residual Fuel Oil Production and Product Supplied
(Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,834
1980	1,580	1,634	54	2,562

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. Table B6 presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in Table 1. These imbalances are reported as negative product supplied in Table 2. Since these changes only involve redistribution of the volumes of finished motor gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Alaskan In Transit Stocks

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).

Note 13. 1983 Changes in the Petroleum Supply Reporting System

January 1983 marked the implementation of recent changes in the collection, processing and availability of the Energy Information Administration's (EIA) petroleum supply data. Survey forms and definitions were made consistent; frames for bulk terminals, petroleum product pipelines and crude oil stock holders were updated, and the survey processing system was redesigned and incorporated into the new Petroleum Supply Reporting System (PSRS).

Changes in Data Collection

Changes in data collection can be grouped into five categories. Some were made to improve consistency, others to classify activity more precisely, and others to combine or eliminate information elements or to reduce the frequency of reporting in recognition of the trade-off between data value and reporting burden. The changes are itemized below.

- Motor gasoline was divided into three standard categories (finished leaded motor gasoline, finished unleaded motor gasoline and motor gasoline blending components).
- Aviation gasoline blending components were added to Form EIA-817.
- Crude oil burned as fuel on leases and by pipelines is reported as a single item on Form EIA-813. Previously it was reported as distillate or residual fuel oil consumption.
- Number 4 Fuel Oil is now included with distillate fuel oil.
- Gasohol was eliminated as a separate category and is now reported as either "finished leaded motor gasoline" or "finished unleaded motor gasoline."
- Waterborne movements of petrochemical feedstocks are now divided into naphtha-less than 401 degrees end-point and other-oils equal to or greater than 401 degrees end-point on Form EIA-817.
- Data aggregation for Petroleum Administration for Defense District (PADD) I was divided into three sub-districts on Forms EIA-812 and 817.
- Detailed categories of Gross Input to Crude Oil Distillation Units were eliminated, and only Total Gross Inputs are collected on Form EIA-810.
- Waterborne movements of crude oil and petroleum products between PADDs, on Form EIA-817, no longer reflect shipping and receiving States.
- Reporting of production and stocks of Number 4 Fuel Oil by sulfur levels were eliminated from Forms EIA-810, 811, 812, and 817.
- Crude oil stocks are collected at PADD levels rather than State levels on Form EIA-813.
- Shipments from natural gas processing plants no longer reflect destination by facility type on Form EIA-816.
- The four categories for unfinished oils were reduced to two on Form EIA-810.
- The five categories for sulfur content of residual fuel oil were reduced to three on Forms EIA-810, 811, and 817.
- Normal Butane and Other Butanes were combined into a single category on Forms EIA-810, 811, and 816.
- Three subcategories of lubricating oils (bright stock, neutral, and other) were combined into a single category on the Form EIA-810.
- Three subcategories of waxes (microcrystalline, crystalline-fully refined, and crystalline-other) were combined into a single category on the Form EIA-810.
- Asphalt and Road Oil were combined into a single category on Forms EIA-810 and 811.
- Plant fuel use and Losses were combined on Form EIA-816.
- Natural Gasoline and Isopentane were combined on Form EIA-816.

Change in Crude Oil Lease Stocks

The end-of-month crude oil stocks held on leases are reported on the Form 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 Energy Information Administration (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 the EIA reported data and the state government data was made and the difference added to the EIA data for 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 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.

Note 14. 1984 Changes in the Petroleum Supply Reporting System

In January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than a product, basis.

From 1979 to 1983, the Energy Information Administration (EIA) collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were

reported for 5 components to be consistent with record keeping practices used by the industry. Table B7 shows the product category under the new and old basis. Four Petroleum Supply Reporting System surveys were modified beginning in January 1984. They were:

EIA-810	"Monthly Refinery Report"
EIA-811	"Monthly Bulk Terminal Report"
EIA-812	"Monthly Product Pipeline Report"
EIA-816	"Monthly Natural Gas Liquids Report"

Table B7. Product Basis vs. Component Basis Reporting

1979-1983 Product Basis	1984 Component Basis				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures		•	•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

This change affected stocks reported and stock change calculations. Under the new basis, end-of-year 1983 stocks would have been 108 million barrels (Liquefied Petroleum Gases) and 210 million barrels (Other Petroleum Products).

A fifth survey, Form EIA-814, "Monthly Imports Report" (formerly Form ERA-60), was not modified. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm was based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first 6 months of 1983. The percentages shown in Table B8 are derived from the weighted averages of the data provided by the importers.

Exports

The exports algorithm was based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in Table B8 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by Petroleum Administration for Defense Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 15. 1985 Changes in the Petroleum Supply Reporting System

Beginning in January 1985, inter-Petroleum Administration for Defense (PAD) District pipeline movements of crude oil were included in the crude oil supply balance at the PAD District level but did not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of Entry* (Tables 4-8) and by *PAD District of Processing* (Table 14).

The tables in the *Petroleum Supply Annual* that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below:

- Tables 4 through 8, "PAD Districts I to V, Supply and Disposition of Crude Oil and Petroleum Products."
 - Effective January 1985, crude oil imports and unfinished oil imports in Tables 4 through 8 were reported at the *PAD District of Entry* rather than at the *PAD District of Processing*. *Net Receipts* now include movements by pipeline as well as by tanker and barge.
- Table 20, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
 - The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 21, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts."
 - A line was added to report crude oil movements.

**Table B8. Algorithm for Allocating NGL Imports/Exports
(Percent)**

Product	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline and Isopentane (EIA-814) . . .	—	—	—	—	100
Plant Condensate (EIA-814)	—	—	—	—	100
Ethane (IM-145)	100	—	—	—	—
Propane (IM-145)	—	100	—	—	—
Butane (IM-145)	—	—	65	35	—
Butane-Propane Mixtures (IM-145)	—	40	35	20	5
Ethane-Propane Mixtures (IM-145)	60	40	—	—	—
Export Product					
Ethane (All PAD Districts)	100	—	—	—	—
Propane (All PAD Districts)	—	100	—	—	—
Butane (All PAD Districts)	—	—	100	—	—
Mixed Streams					
PAD Districts I, IV, V	—	40	60	—	—
PAD District II	30	25	15	15	15
PAD District III	—	80	20	—	—

- Table 23, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."

- The crude oil line includes movements by pipeline as well as by tanker and barge.

Note 16. 1986 Changes in the Petroleum Supply Reporting System

Beginning in January 1986, several changes to the Petroleum Supply Reporting System (PSRS) went into effect. These changes affected the frame of operators of petroleum facilities required to complete the monthly surveys in the PSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* and were subsequently published in the *Petroleum Supply Annual* (PSA). Refer to Explanatory Note 9 for a detailed description of frames maintenance and updates.

Changes in Data Collection

- The unit of measure used on Form EIA-814, "Monthly Imports Report," has been changed from barrels to thousands of barrels.

- Unfinished oil imports data, previously reported as one product on the Form EIA-814, are now reported separately under four classifications. These classifications are:

- Naphthas and lighter
- Kerosene and light gas oils
- Heavy gas oils
- Residuum

- The number of categories for reporting natural gas liquids and liquefied petroleum gases data on Form EIA-814 was reduced from 19 to 5 by eliminating the requirement to separately identify categories for further processing, petrochemical use, and fuel use.
- The requirements to report the type of processing facility and the applicable section of the oil import regulations were eliminated for the Form EIA-814.
- The requirement to report data for imports of crude oil, unfinished oils, and finished products on separate schedules of the Form EIA-814 was eliminated.
- The requirement to report two end-use categories, petrochemical use and other use, for still gas and liquefied refinery gases, was eliminated on Form EIA-810, "Monthly Refinery Report."

- Form EIA-815, "Monthly Shipments from Puerto Rico to the United States Report," was discontinued. The data previously reported on this form are now reported on Form-814.

Changes in Publication Tables

Several changes were also made to tables in the *PSA* either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes were:

- Table 11, "Refinery Input of Crude Oil and Petroleum Products by PAD District."
 - Alaskan crude oil receipts were shown separately.
- Table 12, "Refinery Production of Petroleum Products by PAD District."
 - The breakout between "petrochemical feedstock use" and "other use" were no longer shown separately for still gas or for liquefied refinery gases.
- Table 14, "Imports of Crude Oil and Petroleum Products by PAD District."
 - Imports of unfinished oils were separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.
- Table 15, "Imports of Crude Oil and Petroleum Products by Source."
 - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" were shown individually.
- Table 18, "Stocks of Crude Oil and Petroleum Products by PAD District."
 - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 17. 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely, and consistent energy information. These changes were subsequently reflected in the *Petroleum Supply Annual* (PSA).

Changes in Data Collection

Fresh feed input to catalytic cracking units, hydrocracking units, and cokers were added to the Form EIA-810, "Monthly Refinery Report."

Changes in Publication Tables

- The "Appalachian No. 2" Refining District was combined with the "Indiana, Illinois, Kentucky," Refining District. This affected *PSA* Tables 10 through 13, 18, 24, and 25.
- Fresh feed inputs to catalytic cracking units, hydrocracking units, and cokers were added to Table 11, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during 1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

Effective with the January 1987 data, all FTZ facilities located within the 50 United States are considered domestic entities and are included in *PSA* statistics. The principal differences in the *PSA* data series as a result of adding the Hawaiian FTZ was an approximate 1 percent increase in crude imports and a 3 percent decrease in product imports.

Note 18. 1989 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1989. These changes were made to reduce respondent burden, to fulfill user requests for additional data, and to improve accuracy and consistency in reporting. To reflect these changes and to improve the usefulness of the *Petroleum Supply Monthly* (PSM) publication, the following changes were made in January 1989 and are subsequently reflected in the *Petroleum Supply Annual* (PSA) publication.

Changes in Data Collection

- Data on inputs and production of naphthenic and paraffinic lubricants were added to the Form EIA-810, "Monthly Refinery Report."

- Separate lines for the collection of inputs and production of olefins (ethylene, propylene, and butylene) were added to Form EIA-810, "Monthly Refinery Report."
- The collection of data on the movement of Liquefied Petroleum Gases (LPGs) and Liquefied Refinery Gases (LRGs) on a component basis were added to the Forms EIA-812, "Monthly Product Pipeline Report," and the EIA-817, "Monthly Tanker and Barge Movement Report."
- Bonded imports of jet fuel and fuel oils and imports of LPGs previously published from data provided by the U.S. Bureau of the Census were discontinued. Data are now published from the data reported on the Form EIA-814, "Monthly Imports Report."
- Exports of butane/propane and ethane/propane mixtures were split in a ratio of 60 percent for the butane and ethane portions and 40 percent for the propane portion.
- The reporting of products other than Natural Gas Liquids (NGLs) by natural gas processing plants was eliminated on the Form EIA-816, "Monthly Natural Gas Liquids Report."
- Fractionators were required to report only end-of-month stocks of NGLs on the Form EIA-816, "Monthly Natural Gas Liquids Report."

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *PSM*, adjustments were made to refinery inputs and product supplied of 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 was made to refinery input in all Petroleum Administration for Defense (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 began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 was revised to account for the adjustment in the *PSA*. Revisions for 1987 data are not planned.

Changes in Publication Tables

- "Stock Withdrawal" was renamed "Stock Change" and was moved from Supply to Disposition in Tables 2 through 13. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.
- A jet fuel total line was added to Tables 2-13, 17, 18, 20, 32-35.
- PAD District Supply and Disposition tables (Tables 4 through 13) now display liquefied petroleum gases on a component basis.
- A table showing net imports by country for the current month (Table 29) was added.
- Table numbers were changed as a result of data additions and table reorganization. Table B9 is provided to show the new to old table numbers for the detailed statistics tables.
- Table 15, "Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining District."
 - Stocks at natural gas processing plants by Refining District previously published on Table 10 was included with net production of petroleum products at natural gas plants.
 - The reporting of products other than natural gas liquids by natural gas processing plants was eliminated.
- Table 17, "Net Refinery Production of Finished Petroleum Products by PAD and Refining District."
 - Net production of olefins (ethylene, propylene, and butylene) was added.
 - Net production of naphthenic and paraffinic lubricants was added.

Table B9. Conversion Table for 1989 PSA

Table Numbers									
Old	New	Old	New	Old	New	Old	New	Old	New
1	1	NA	9	12, 24	17	15	25	21	33
2	2	7	10	18, 25	18	27	26	22, 26	34
3	3	NA	11	13	19	16	27	23	35
4	4	8	12	14, 27	20	17	28		
NA	5	NA	13	15	21	NA	29		
5	6	9	14	15	22	18, 25	30		
NA	7	10	15	15	23	19	31		
6	8	11	16	15	24	20	32		

NA = Not Applicable

- Net production of residual fuel oil by percent sulfur, previously published as Table 24, was added.
- Table 18, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining District."
 - Stocks at refineries by Refining District were added from Table 18.
 - Stocks of residual fuel oil by percent sulfur content, previously published as Table 25, were added.
- Tables 21 through 25, "Imports of Crude Oil and Petroleum Products by Country of Origin."
 - Data previously included in the "Other Products" category were displayed separately for naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, lubricants, and asphalt and road oil.
- Table 20, "Imports of Crude Oil and Petroleum Products by PAD District."
 - Sulfur content categories for residual fuel oil, previously published as Table 27, were added.
- Table 28, "Exports of Crude Oil and Petroleum Products by Destination."
 - Data for exports by destination previously included in the Other Products category were displayed separately for pentanes plus, kerosene, naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use.
- Table 30, "Stocks of Crude Oil and Petroleum Products by PAD District."

- Refining District data were eliminated. Refinery stocks and natural gas processing plant stocks by Refining District were added to Table 18.

- Sulfur content categories for residual fuel oil, previously published as Table 25, were added.

Note 19. 1990 Changes in the Petroleum Supply Reporting System

Beginning with the May 1990 issue of the *Petroleum Supply Monthly* (PSM), stocks of propane/propylene were added to Table 42, "Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by State." This change is also reflected in the corresponding table in the *Petroleum Supply Annual* (PSA).

Beginning with the 1991 March issue of the *PSM*, several changes were made to the Petroleum Supply Reporting System to provide additional data and to improve the usefulness of the publication. Although these changes were made in 1991, these changes have been incorporated into the 1990 *PSA* to provide consistent energy information.

Changes in Publication Tables

Summary Statistics Tables

- A new table (Table S7) has been added to display jet fuel supply and disposition.
- Table S8, "Other Petroleum Products Supply and Disposition" has been redesignated as Table S9. Jet fuel data are no longer included. Historical data have been revised to exclude jet fuel.

- Table S3, "Crude Oil and Petroleum Product Imports" has been expanded to display all Organization of Petroleum Exporting Countries (OPEC) and additional Non-OPEC countries. A separate column for crude oil imports has also been added for each country.

- Time periods have been included in table titles.

Figures

- Time periods have been included in figure titles.
- Sources have been provided for each figure.
- Bar graphs used to display end-of-month stocks have been replaced with line graphs.

Sources

The sources and explanatory notes for this section have been updated and are now located at the end of the Summary Statistics section.

Detailed Statistics Tables

- Table 1, "U.S. Petroleum Balance"
 - A line has been added to display jet fuel as a separate category for Total Products Supplied and Total Stocks (Lines 34 and 44, respectively).
- Imports of Crude Oil and Petroleum Products by PAD District
 - Residual fuel oil sulfur categories have been added.
- Imports of Crude Oil and Petroleum Products by Country of Origin
 - Residual fuel oil sulfur categories by country of origin have been eliminated. These categories are now reported on a PAD District basis.
 - Separate daily average columns have been added for crude oil and petroleum products.

Note 20. 1993 Changes in the Petroleum Supply Reporting System

In keeping with the Department of Energy's (DOE's) mandated responsibilities, the Energy Information Administration (EIA) made several changes to the Petroleum Supply Reporting System (PSRS) effective in January 1993. These changes were designed to accommodate the revisions to the Clean Air Act of 1990, and to reflect

current and upcoming changes in the petroleum industry. These changes are subsequently reflected in the 1993 *Petroleum Supply Annual*.

Changes in Data Collection

- Motor gasoline categories have been revised to reflect the change in the type of fuels produced. The new categories are: reformulated gasoline, oxygenated gasoline, and other finished gasoline. These changes were made to Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-814, "Monthly Imports Report," and EIA-817, "Monthly Tanker and Barge Movement Report."
- Distillate Fuel Oil has been split into two sulfur categories to meet Environmental Protection Agency requirements effective in October 1993. The new categories for inputs, production, end-of-month stocks and movements are: 0.05% sulfur and under, and greater than 0.05% sulfur. These changes were made to Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-814, "Monthly Imports Report," and EIA-817, "Monthly Tanker and Barge Movement Report."
- Other hydrocarbons, hydrogen, and alcohol (Code 090) has been renamed "Other hydrocarbons, hydrogen, and oxygenates" on Form EIA-810, "Monthly Refinery Report." A new line has also been added to report Other hydrocarbons and hydrogen separately.
- Data on inputs and end-of-month stocks of oxygenates (i.e., fuel ethanol, ethyl tertiary butyl ether (ETBE), methanol, methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other oxygenates) has been added to Form EIA-810, "Monthly Refinery Report."
- Inputs and production of Isobutylene (Code 634) has been added as sub-categories to Isobutane (Code 615) on Form EIA-810, "Monthly Refinery Report."
- Data on inputs and production of military kerosene-type jet fuel and commercial kerosene-type jet fuel has been added to Form EIA-810, "Monthly Refinery Report."
- Liquefied Petroleum and Refinery Gases column headings for Ethane, Propane, Normal Butane, and Isobutane have been revised to include olefins (e.g., Ethane/Ethylene etc.) on Form EIA-811, "Monthly Bulk Terminal Report."

- Data on end-of-month stocks of oxygenates (i.e., fuel ethanol, ethyl tertiary butyl ether (ETBE), methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other oxygenates) have been added to Forms EIA-811, "Monthly Bulk Terminal Report," and EIA-812, "Monthly Product Pipeline Report." Data for methanol are not collected at this time but has been included on the form for future use.
- Imports of oxygenates (i.e., fuel ethanol, ethyl tertiary butyl ether (ETBE), methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other oxygenates) have been added to Form EIA-814, "Monthly Imports Report." Data for methanol are not requested at this time.
- Imports of olefins are collected separately from liquefied petroleum gases (i.e., ethylene, propylene, butylene, and isobutylene) on Form EIA-814, "Monthly Imports Report."
- Data on blended into motor gasoline has been eliminated on the Form EIA-819M, "Monthly Oxygenate Telephone Report."
- Data on methanol is no longer required on the Form EIA-819M, "Monthly Oxygenate Telephone Report" but remains on the form for future use.

Changes in Summary Statistics Tables

- Table S1. Crude and Petroleum Products Overview
 - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
- Table S2. Crude Oil Supply and Disposition
 - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
 - The Crude Used Directly column has been eliminated. This column is no longer applicable since the years 1973 through 1980 have been eliminated. The data for 1981 and 1982 are provided in a footnote.
- Table S3. Crude Oil and Petroleum Product Imports
 - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.

- The Former USSR has been renamed Russia. The remaining states that comprised the Former USSR have been included in the Other Non-OPEC column.
- Table S4. Finished Motor Gasoline Supply and Disposition
 - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
 - Product supplied-unleaded and product supplied-unleaded (percent of Total) columns have been eliminated. A new column has been added to display end-of-month stocks of oxygenates. These stocks are not included in the Total Motor Gasoline end-of-month stocks.
- Table S5. Distillate Fuel Oil Supply and Disposition
 - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
 - Distillate fuel oil stocks have been separated into two sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur).
 - The Crude Used Directly column has been eliminated. This column is no longer applicable since the years 1973 through 1980 have been eliminated. The data for 1981 and 1982 are provided in a footnote.
- Table S6. Residual Fuel Oil Supply and Disposition
 - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
 - The Crude Used Directly column has been eliminated. This column is no longer applicable since the years 1973 through 1980 have been eliminated. The data for 1981 and 1982 are provided in a footnote.
- Table S7. Jet Fuel Supply and Disposition
 - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
- Table S8. Propane/Propylene Supply and Disposition
 - A new summary table has been added to display supply and disposition data for propane/propylene.

This information will continue to be included in the Liquefied Petroleum Gases Supply and Disposition table (renumbered as Table S9).

- Table S9. Liquefied Petroleum Gases Supply and Disposition
 - Formerly numbered as Table S8.
 - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
- Table S10. Other Petroleum Products Supply and Disposition
 - Formerly numbered as Table S9.
 - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.

Changes in Detailed Statistics Tables

- Table 1. U.S. Petroleum Balance
 - Line 14 includes fuel ethanol blended into finished motor gasoline. This quantity is comparable to the sum of field production of finished motor gasoline and natural gas liquids and LRGs on Table 2.
 - Line 20 has been modified to read: Other Liquids New Supply (Field Production) to accommodate motor gasoline blending components field production.
- Tables 2 through 13. Supply and Disposition
 - Isobutane has been renamed Isobutane/Isobutylene under Liquefied Petroleum Gases for clarification.
 - Other Hydrocarbons/Hydrogen/Alcohol has been renamed Other Hydrocarbons/Hydrogen/Oxygenates for clarification.
 - Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
 - Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.
- Table 16. Refinery Input
 - Other Hydrocarbons/Hydrogen/Alcohol has been renamed Other Hydrocarbons/Hydrogen/

Oxygenates for clarification. Sub-categories are displayed for Other Hydrocarbons/Hydrogen and for Oxygenates.

- Oxygenates are displayed separately for fuel ethanol, methanol, MTBE, and other oxygenates. Other oxygenates includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl alcohol (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).
- Table 17. Refinery Net Production
 - Isobutane has been renamed Isobutane/Isobutylene under Liquefied Petroleum Gases for clarification. Isobutylene is displayed as a sub-category to be consistent with the other liquefied gases.
 - Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
 - Military and commercial kerosene-type jet fuel has been added.
 - Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.
- Table 18. Refinery Stocks
 - Isobutane has been renamed Isobutane/Isobutylene under Liquefied Petroleum Gases for clarification.
 - Other Hydrocarbons/Hydrogen/Alcohol has been renamed Other Hydrocarbons/Hydrogen/Oxygenates for clarification. Sub-categories are displayed for Other Hydrocarbons/Hydrogen and for Oxygenates.
 - Oxygenates are displayed separately for fuel ethanol, methanol, MTBE, and other oxygenates. Other oxygenates includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl alcohol (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).
 - Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
 - Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

- Table 20. Imports by PAD District

- Data on olefins are displayed separately from liquefied petroleum gases.
- Other Hydrocarbons/Hydrogen/Alcohol has been renamed Other Hydrocarbons/Hydrogen/Oxygenates for clarification. Sub-categories are displayed for Other Hydrocarbons/Hydrogen and for Oxygenates.
- Oxygenates are displayed separately for fuel ethanol, MTBE, and other oxygenates. Other oxygenates includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl alcohol (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added to both bonded ship bunkers and other.

- Tables 21-25. Imports by Country of Origin

- A new line has been added to appear below the Total line to show the sum of the Persian Gulf countries.
- Former USSR has been changed to read Russia. States formerly included in USSR are now included in the Other countries category under Non-OPEC.

- Table 27. Exports

- Isobutane has been renamed Isobutane/Isobutylene under Liquefied Petroleum Gases for clarification.
- Other Hydrocarbons/Oxygenates and Motor Gasoline Blending Components have been added as export products under the Other Liquids category.

- Table 28. Exports by Destination

- Miscellaneous products category has been renamed Other Products to accommodate exports of other hydrocarbons/ oxygenates and motor gasoline blending components.

- Table 29. Net Imports

- A new line has been added to appear below the Total line to show the sum of the Persian Gulf countries.

- Former USSR has been changed to read Russia. States formerly included in USSR are now included in the Other countries category under Non-OPEC.

- Table 30. Stocks

- Other Hydrocarbons/Hydrogen/Alcohol has been renamed Other Hydrocarbons/Hydrogen/Oxygenates for clarification. Sub-categories are displayed for Other hydrocarbons/hydrogen fuel ethanol, ETBE, methanol, MTBE, and other oxygenates.
- Other oxygenates includes tertiary amyl methyl alcohol (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

- Table 31. Refinery, Bulk Terminal, and Natural Gas Plant Stocks

- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

- Table 32. Movements by Pipeline, Tanker, and Barge

- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

- Table 33. Movements by Pipeline

- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

- Table 34. Movements by Tanker and Barge

- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

- Table 35. Net Movements

- Isobutane has been renamed Isobutane/Isobutylene under Liquefied Petroleum Gases for clarification.
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

Changes in Appendix C (PSM)

- Inputs

- Other hydrocarbons has been renamed Other Hydrocarbons/ Oxygenates for clarification.

- Production

- Isobutane has been renamed Isobutane/Isobutylene under Liquefied Petroleum Gases for clarification.
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- A new line has been added to display field production of motor gasoline blending components.

- Imports

- Isobutane has been renamed Isobutane/Isobutylene under Liquefied Petroleum Gases for clarification.
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.

- Stocks

- Other hydrocarbons has been renamed Other Hydrocarbons/ Oxygenates for clarification.

- Isobutane has been renamed Isobutane/Isobutylene under Liquefied Petroleum Gases for clarification.

- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.

- Product Supplied

- Isobutane has been renamed Isobutane/Isobutylene under Liquefied Petroleum Gases for clarification.

- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.

Changes in Appendix D

- Table D1. U.S. Summary Table

- Data on blended into motor gasoline has been eliminated. This information is no longer collected on the survey EIA-819M, "Monthly Oxygenate Telephone Report."

- Table D2. Monthly Fuel Ethanol Production and Ending Stocks

- Data for the previous year as well as current year are displayed.
- Data on blended into motor gasoline has been eliminated. This information is no longer collected on the survey EIA-819M, "Monthly Oxygenate Telephone Report."
- Data for fuel ethanol imports has been dropped due to small volumes reported by respondents.

- Table D3. Monthly MTBE Production and Ending Stocks

- Data for the previous year as well as current year are displayed.
- Data on blended into motor gasoline has been eliminated. This information is no longer collected on the survey EIA-819M, "Monthly Oxygenate Telephone Report."
- Data on MTBE imports has been dropped from the table due to small volumes reported by respondents.

Appendix C

1992 Revised
Crude Oil
Production

Surface aerators are used at U.S. petroleum refineries to help prevent water pollution. These aerators speed up the oxidation process by beating air into water.

Appendix C

Table C1. Revised^a Crude Oil Production by PAD District and State, 1992
(Thousand Barrels)

PAD District and State	January	February	March	April	May	June	July
PAD District I	881	783	835	844	828	859	826
Florida	483	444	431	429	454	457	407
New York	33	21	34	33	34	37	38
Pennsylvania.....	195	148	189	198	180	203	194
Virginia.....	1	1	1	1	1	1	1
West Virginia.....	168	168	179	183	158	160	185
PAD District II	21,642	20,154	21,563	21,218	20,875	20,578	21,022
Illinois	1,604	1,527	1,618	1,592	1,592	1,619	1,652
Indiana	250	234	265	248	241	261	253
Kansas	4,844	4,322	4,671	4,592	4,514	4,462	4,536
Kentucky	446	432	346	567	438	443	459
Michigan.....	1,408	1,321	1,365	1,300	1,344	1,291	1,342
Missouri.....	11	13	13	13	12	13	12
Nebraska.....	487	454	478	466	476	450	458
North Dakota.....	2,879	2,707	2,862	2,745	2,807	2,685	2,755
Ohio	770	737	805	813	748	787	757
Oklahoma.....	8,761	8,233	8,968	8,708	8,524	8,392	8,631
South Dakota	138	128	131	127	132	130	129
Tennessee	44	45	41	49	46	47	38
PAD District III	106,316	99,307	105,965	101,609	103,969	100,235	103,639
Alabama	1,691	1,586	1,678	1,648	1,607	1,587	1,634
Arkansas	920	854	899	870	858	846	868
Louisiana ^b	12,445	11,644	12,339	11,926	12,225	11,858	12,254
Mississippi.....	2,192	2,021	2,112	2,072	2,152	2,118	2,153
New Mexico	6,002	5,757	6,124	5,924	6,017	5,826	5,931
Texas ^b	56,323	52,552	56,220	54,054	54,953	52,661	54,505
Federal Offshore PADD III	26,744	24,892	26,593	25,114	26,157	25,339	26,294
PAD District IV	14,797	13,833	14,675	14,194	14,589	13,959	14,391
Colorado	2,581	2,472	2,607	2,629	2,634	2,538	2,550
Montana	1,599	1,487	1,603	1,541	1,583	1,505	1,545
Utah	2,121	1,996	2,119	1,979	2,066	1,973	2,037
Wyoming	8,495	7,877	8,346	8,044	8,306	7,943	8,259
PAD District V	85,142	80,418	85,091	81,279	82,281	79,785	81,627
Alaska ^b	55,457	52,428	55,345	52,233	52,152	51,094	51,291
South Alaska.....	1,322	1,237	1,335	1,256	1,212	1,251	1,242
North Slope.....	54,135	51,191	54,010	50,976	50,940	49,843	50,049
Arizona.....	9	8	8	8	8	8	8
California ^b	26,293	24,476	26,170	25,271	26,143	25,172	25,932
Nevada.....	250	238	252	271	316	305	325
Federal Offshore PADD V	3,132	3,269	3,317	3,496	3,661	3,205	4,071
U.S. TOTAL^b	228,778	214,494	228,129	219,144	222,542	215,416	221,505
Daily Average	7,380	7,396	7,359	7,305	7,179	7,181	7,145

This table contains updates on 1992 crude oil production statistics published in the *Petroleum Supply Annual (PSA)*, 1992.

Statistics on crude oil production for States and for Federal offshore areas are reported to the Energy Information Administration (EIA) by State government agencies and by the Minerals Management Service, U.S. Department of the Interior. These data are updated periodically by the reporting agencies and are received by the EIA on an ongoing basis. At the time of publication of the 1992 *PSA*, the EIA had not received complete and/or updated statistics on crude oil production for several States. This table is provided to inform the user of updated monthly and annual crude oil production statistics for 1992, and are not subject to further revision by the EIA.

Table C1. Revised^a Crude Oil Production by PAD District and State, 1992 (Continued)
(Thousand Barrels)

PAD District and State	August	September	October	November	December	Total	Daily Average
PAD District I	867	868	889	831	862	10,174	28
Florida	456	453	469	462	479	5,425	15
New York	36	35	36	31	33	406	1
Pennsylvania	193	201	198	180	181	2,263	6
Virginia	1	1	2	1	1	13	(s)
West Virginia	180	178	184	156	168	2,068	6
PAD District II	20,764	20,185	20,662	18,820	20,870	248,353	678
Illinois	1,618	1,609	1,600	1,481	1,826	19,137	52
Indiana	246	248	262	238	270	3,016	8
Kansas	4,378	4,347	4,424	4,039	4,505	53,633	147
Kentucky	474	473	450	277	578	5,382	15
Michigan	1,310	1,274	1,300	1,096	1,230	15,579	43
Missouri	12	12	11	10	10	143	(s)
Nebraska	449	443	451	429	435	5,474	15
North Dakota	2,775	2,680	2,737	2,605	2,663	32,900	90
Ohio	733	747	797	724	778	9,197	25
Oklahoma	8,597	8,189	8,460	7,762	8,610	101,834	279
South Dakota	133	125	132	125	128	1,557	4
Tennessee	40	40	39	36	36	501	1
PAD District III	98,833	96,807	102,868	98,314	101,559	1,219,420	3,332
Alabama	1,590	1,491	1,625	1,575	1,617	19,330	53
Arkansas	893	854	883	852	877	10,474	29
Louisiana ^b	11,052	11,242	12,593	11,421	12,076	143,075	391
Mississippi	2,134	2,027	2,123	1,982	2,095	25,182	69
New Mexico	5,934	5,751	5,907	5,712	5,894	70,779	193
Texas ^b	54,719	52,929	54,834	52,766	54,117	650,831	1,778
Federal Offshore PADD III	22,511	22,512	24,904	24,007	24,882	299,950	820
PAD District IV	14,264	13,788	14,136	13,709	13,847	170,181	465
Colorado	2,554	2,498	2,645	2,549	2,554	30,811	84
Montana	1,573	1,517	1,555	1,494	1,479	18,482	50
Utah	2,010	1,946	1,964	1,918	1,947	24,078	66
Wyoming	8,127	7,827	7,973	7,748	7,866	96,810	265
PAD District V	80,296	79,809	82,358	78,998	82,441	979,526	2,676
Alaska ^b	50,681	51,011	52,576	50,213	52,841	627,322	1,714
South Alaska	1,256	1,236	1,305	1,246	1,304	15,204	42
North Slope	49,424	49,775	51,271	48,967	51,537	612,119	1,672
Arizona	9	8	9	7	7	94	(s)
California ^b	25,696	24,848	25,636	24,737	25,298	305,673	835
Nevada	324	342	360	376	372	3,731	10
Federal Offshore PADD V	3,587	3,600	3,777	3,665	3,923	42,705	117
U.S. TOTAL^b	215,023	211,458	220,914	210,673	219,578	2,627,654	7,179
Daily Average	6,936	7,049	7,126	7,022	7,083	7,179	—

^a Data are based upon revisions received as of April 1994.

^b Includes the following offshore production (thousand barrels): Alaska: State - 54,863; California: State - 21,944; Louisiana: State - 23,490; Texas: State - 2,138; U.S. Total, including Federal Offshore - 445,090.

(s) = Less than 500 barrels per day.

Note: • Production data are revised from those published in the *Petroleum Supply Annual 1992* for the following States: Alabama, Arkansas, California, Colorado, Federal Offshore PAD District III, Federal Offshore PAD District V, Illinois, Kansas, Kentucky, Missouri, Montana, Nevada, New Mexico, New York, North Dakota, Oklahoma, Pennsylvania, Tennessee, Texas, Utah, and Virginia. • Annual crude oil production for Michigan, New York, Ohio, and Pennsylvania was prorated by month based on first purchaser monthly crude oil volumes collected on Form EIA-182, "Domestic Crude Oil First Purchase Report." • Totals may not equal sum of components due to independent rounding.

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

Glossary

Pipelines carry natural gas across geographic regions.

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 is calculated as follows:

$$\text{Degrees API} = \frac{141.5}{\text{sp.gr. } 60^\circ\text{F}/60^\circ\text{F}} - 131.5$$

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, reformat, 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 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 and Greater than 0.05% sulfur.

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) ($\text{CH}_3)_3\text{COC}_2\text{H}_5$. An oxygenate blend stock formed by the catalytic etherification of isobutylene with ethanol.

Ethane (C_2H_6). 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 (C_2H_4). An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods 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 ($\text{C}_2\text{H}_5\text{OH}$). 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 goods 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 Specification MIL-T-5624L (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 commercial use.

Military. Kerosene-type jet fuel intended for military use.

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.

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 (CH_3OH). A light, volatile alcohol eligible 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 D439 or Federal Specification VV-G-1690B, includes a range in distillation temperatures from 122° to 158° F at the 10-percent recovery point and from 365° to 374° 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.

Oxygenated Gasoline. Gasoline formulated for use in motor vehicles that has an oxygen content of 1.8 percent or higher, by weight. Includes gasohol.

Other Finished. Motor gasoline not included in the oxygenated or reformulated gasoline categories.

Motor Gasoline Blending. Mechanical mixing of motor gasoline blending components and oxygenates to produce finished motor gasoline (see definition of Motor Gasoline).

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, reformat, benzene, toluene, and xylene). 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) ($\text{CH}_3)_3\text{COCH}_3$. An ether intended for gasoline blending as described in Oxygenate definition.

Nameplate Capacity. The maximum design production capacity specified by the manufacturer of a processing unit or the maximum amount of a product that can be produced running the manufacturing unit at full capacity.

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, pentane, 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, Ecuador, Gabon, 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.

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 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.

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 Specifications D396 and 975. 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. Imports of residual fuel oil include imported crude oil burned as fuel.

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

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, 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)
 $(CH_3)_2(C_2H_5)COCH_3$. 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) $(CH_3)_3COH$. 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 $(C_6H_5CH_3)$. 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 derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: penetration at 77° F (D1321)-60 maximum; viscosity at 210° F in Saybolt Universal Seconds (SUS); (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum; oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics: viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum; oil content (D721)-0.5 percent maximum; other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics: viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum; oil content (D721)-0.51 percent minimum to 15 percent maximum.

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.

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