Petroleum Supply Monthly

October 1990

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Preface

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

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

Data presented in the *PSM* are divided into two sections (1) the Summary Statistics and (2) the Detailed Statistics.

Summary Statistics

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

Detailed Statistics

The Detailed Statistics tables of the *PSM* present statistics for the most current month available as well as year-to-date. In most cases, the statistics are presented for several geographic areas - - the United States (50 States and the District of Columbia), five PAD Districts, and 12 Refining Districts. At the U.S. level, the total volume and the daily rate of activities are presented. The statistics are developed from monthly survey forms submitted by respondents to the EIA and from data provided from other sources.

Appendices

Explanatory Notes, located at the end of this publication, present information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary. Final statistics for the data series published in the *PSM*, as well as additional data from an annual refinery survey are published in the *PSA*. During the processing year, a summary of the impact of resubmissions (corrections) on major series is provided in Appendix C. The *PSA* is published approximately five months after the end of the report year.

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Highlights

Spherical tanks are used to store liquefied petroleum gases under pressure.

Highlights

Unusually mild temperatures in October, high oil prices, and the slowing economy combined to dampen U.S. demand for petroleum at the beginning of the winter heating season. Temperatures in the United States were 6 percent warmer than normal in October; in the Northeast, where petroleum is a primary heating fuel, they were 22 percent above normal. Contributing further to the relatively low petroleum demand were record high petroleum product prices, which increased dramatically for the third consecutive month. The slow pace of economic growth in October was reflected in sluggish industrial production.

Total demand for petroleum products (measured as product supplied) during October 1990 of 16.9 million barrels per day (Table H1) was the lowest for October since 1986. Demand was slightly higher than in September 1990 because of higher demand for motor gasoline and liquefied petroleum gases (LPGs). Under normal weather conditions, heating fuel consumption is the primary stimulant to October increases in demand. Demand for the first 10 months of 1990 was slightly below year-earlier levels, reflecting the slowing economy and the unusually warm weather during most of the year.

Imports of crude oil and petroleum products declined further in October, while product exports remained high. As a result, net imports of the major products were unusually low.

News about the production startup at the Point Arguello oil field and the December OPEC meeting begin on page xix.

Other October 1990 highlights include the following:

- The continued differential between spot prices on the New York and Rotterdam markets further stimulated U.S. exports of motor gasoline and distillate fuel oil, while imports of these products were below normal levels. Despite the loss in net imports, stocks of these products were within the normal range for this time of year because high retail prices had a dampening effect on demand. Distillate fuel oil stocks were substantially higher than at the end of October 1989.
- High prices, unusually warm weather, plentiful stocks at electric utilities, and lower bunker fuel requirements

Preparations for winter include filling residential orders for distillate heating oil in the autumn. Primary stocks at the end of October were substantially higher than a year earlier, and will provide a cushion if severe cold weather occurs this winter.

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

Category	1990			1989	January — October	
	October	September	Difference ^a	October	1990	1989
Products Supplied	16.9	16.4	0.4	17.3	17.0	17.2
Finished Motor Gasoline	7.2	6.9	0.3	7.3	7.2	7.3
Distillate Fuel Oil	3.0	2.9	0.1	3.1	3.0	3.1
Residual Fuel Oil	1.0	1.0	(s)	1.3	1.2	1.3
Liquefied Petroleum Gases	1.8	1.5	0.2	1.8	1.5	1.6
Other Petroleum Products ^b	3.9	4.1	-0.3	3.8	3.9	3.8
Crude Oil	(s)	(s)	(s)	(s)	(s)	(s)
Crude Oil Inputs	12.8	14.1	-1.3	13.4	13.5	13.4
Operable Utilization Rate (percent)	83.5	91.0	-7.5	86.1	88.1	86.6
Imports	6.7	7.3	-0.6	8.3	8.2	8.1
Crude Oil	5.1	5.7	-0.5	6.2	6.1	5.8
Strategic Petroleum Reserve	0.0	0.0	0.0	(s)	(s)	0.1
Other	5.1	5.7	-0.5	6.1	6.1	5.8
Products	1.6	1.7	-0.1	2.1	2.1	2.2
Finished Motor Gasoline	0.2	0.3	-0.1	0.4	0.3	0.4
Distillate Fuel Oil	0.2	0.2	(s)	0.3	0.3	0.3
Residual Fuel Oil	0.4	0.3	0.1	0.6	0.5	0.6
Liquefied Petroleum Gases	0.2	0.1	(s)	0.2	0.2	0.2
Other Petroleum Products ^b	0.7	0.7	-0.1	0.7	0.8	0.7
Exports	0.9	0.8	0.1	0.8	0.8	0.8
Crude Oil	0.1	0.1	(s)	0.1	0.1	0.1
Products	0.8	0.8	0.1	0.7	0.7	0.7
Total Net Imports	5.8	6.5	-0.7	7.5	7.4	7.3
Stock Change^c	-0.7	(s)	-0.7	-0.3	0.3	0.2
Crude Oil	0.1	-0.9	1.0	0.1	(s)	0.1
Products	-0.8	0.9	-1.7	-0.4	0.3	0.1
Total Stocks at End of Period (million barrels)	1,679	1,701	-23	1,658	--	--
Crude Oil	936	933	3	914	--	--
Strategic Petroleum Reserve	589	590	(s)	578	--	--
Other	345	343	3	336	--	--
Products	743	769	-26	744	--	--
Finished Motor Gasoline	182	189	-7	183	--	--
Distillate Fuel Oil	137	136	(s)	122	--	--
Residual Fuel Oil	50	50	(s)	51	--	--
Liquefied Petroleum Gases	117	124	-7	115	--	--
Other Petroleum Products ^b	257	270	-12	273	--	--

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

^b Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

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

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

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

Source: Energy Information Administration, appropriate issues of *Petroleum Supply Monthly*, see Explanatory Note 5.

kept demand for residual fuel oil very low for the second consecutive month.

- A substantial increase in LPG demand caused a moderate drawdown in stocks. Despite a decline in propane stocks, the level at the end of October was slightly above the year-earlier level. Propane stocks were within the normal monthly range for the first time this year.
- Kerosene-type jet fuel demand continued to be high, primarily because of domestic airline travel incentives and continued strong military demand. Of the major products, only kerosene-type jet fuel showed a year-to-date increase in demand. In an unusual turn, exports were much higher than imports in October.
- A notable increase in crude oil production in Alaska and the Lower 48 States brought total U.S. production to the highest level since February 1990. The third consecutive monthly drop in imports, excluding the Strategic Petroleum Reserve (SPR), was more than offset by a significant decline in refinery inputs, allowing stocks to increase slightly.
- Reduced operations at some refineries, related to the increased cost of crude oil, and the continuation of process turnarounds, resulted in a substantial decline in refinery utilization. The utilization rate fell below 90 percent for the first time since June 1990.

Motor Gasoline

The third consecutive major monthly increase in the average retail price of motor gasoline in October resulted in a record high average price of \$1.43 per gallon. The 3 months of major price increases, which raised the average retail price by 26 percent from the July 1990 average, caused consumers to curb driving. Motor vehicle travel plummeted in September, then increased very little in October (Figure H1). The year-to-year change in vehicle-miles traveled showed a markedly small increase in September, and a decline in October. The October decline was the first year-to-year decline since February 1982.¹ These changes were reflected in the unusually low motor gasoline demand in September, and October demand that was slightly below normal, compared with demand during the comparable months of recent years. Demand of 7.2 million barrels per day in October was moderately higher than in September 1990.

Motor gasoline imports declined further and exports remained high in October, as spot prices continued to be lower on the New York market than on the Rotterdam market, and tight supplies in Europe slowed the flow of imports into the United States. Motor gasoline was exported to some countries that normally provide motor gasoline to the United States, such as France and the Netherlands.

¹ U.S. Department of Transportation, *Traffic Volume Trends*, December 1982 through October 1990, Table 1.

Figure H1. Motor Gasoline Demand, and Factors Affecting It

Sources: Energy Information Administration, *Weekly Petroleum Status Report*, December 14, 1990, Table 11; *Petroleum Supply Monthly*, October 1990, Table S4; Department of Transportation, Federal Highway Administration, *Traffic Volume Trends*, December 1982 to 1989, and October 1990, Table 1.

The moderate increase in demand from the September 1990 level was accompanied by a decline in refinery production, in addition to the lower imports. As a result, stocks were drawn down to fill demand. The 182 million barrels of finished motor gasoline in stock at the end of October was within the normal range for this time of year.

Distillate Fuel Oil

The escalation in distillate fuel oil retail prices, combined with mild October weather and sluggish industrial production, prevented the significant increase in demand that normally occurs in October. Demand of 3.0 million barrels per day was close to the September 1990 level, and considerably lower than the October 1989 level.

The unusually low New York spot market prices compared with Rotterdam spot prices for distillate fuel oil, and tight supplies in Europe, kept exports high while imports declined slightly in October. Imports from Canada and Venezuela declined in October, while more than half of the exports were to Canada and Europe. Net imports were only 40,000 barrels per day in October (Figure H2), accounting for only 1 percent of demand. Under normal conditions at this time of year, net imports represent 7 to 14 percent of distillate demand.

The summer buildup of distillate fuel oil stocks in 1990 was significant compared to that of recent years. The relatively low demand in October contributed to a further buildup, with ending stocks reaching 137 million barrels. Almost the entire

increase from the year-earlier level of 122 million barrels was in PAD District I, where residential consumption of distillate heating oil is highest. The plentiful stocks will provide a cushion, should a severe cold snap occur this winter.

Residual Fuel Oil

Demand for residual fuel oil edged upward in October, but remained well below the normal level for this time of year. Several factors contributed to the unseasonably low demand of 1.0 million barrels per day. High October prices for residual fuel oil in relation to natural gas prompted many dual-fuel facilities to switch to natural gas. Moreover, electric utility stocks of residual fuel oil were plentiful, causing many utilities to cancel or defer scheduled October deliveries. The unusually mild October weather further dampened demand for residual heating oil. In addition, the decline in petroleum imports in recent months lowered demand for residual bunker fuel. Residual fuel is the major product imported. Year-to-date demand was 7 percent lower than during the comparable period of 1989, primarily because of the unseasonably warm weather during the first quarter, the high price of residual fuel oil compared to that of natural gas during much of the year, and the price escalation since Iraq's invasion of Kuwait.

Liquefied Petroleum Gases

LPG demand increased substantially in October, to 1.8 million barrels per day. The high demand was primarily because of an

Figure H2. Net Imports of Selected Petroleum Products
(Thousand Barrels per Day)

Source: Energy Information Administration, *Petroleum Supply Annual*, 1989, Volume 2, Table 5; *Petroleum Supply Monthly*, January through October 1990, Table 5.

Table H2. U.S. Refinery Inputs, Capacities and Utilization Rates: 1989-1990
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1989												
Gross Refinery Inputs	13,502	12,974	13,131	13,123	13,566	14,067	13,957	14,024	13,898	13,533	13,549	13,244
Operable Refinery Capacity	15,655	15,671	15,669	15,687	15,692	15,698	15,698	15,706	15,722	15,722	15,732	15,761
Idle Capacity ¹	643	707	738	743	683	575	602	632	759	775	626	344
Idle Three Months or Less	175	233	225	180	140	46	50	80	211	201	51	66
Idle More than Three Months	468	474	513	563	543	529	552	552	548	574	575	378
Operating Capacity ²	15,012	14,964	14,931	14,944	15,008	15,124	15,097	15,075	14,963	14,946	15,106	15,117
Utilization Rate (percent)												
Operable Capacity	86.2	82.8	83.8	83.7	86.5	89.6	88.9	89.3	88.4	86.1	86.1	84.0
Operating Capacity	89.9	86.7	87.9	87.8	90.4	93.0	92.4	93.0	92.9	90.6	89.7	87.6
1990												
Gross Refinery Inputs	13,628	13,653	13,047	13,234	13,570	13,886	14,397	14,225	14,301	13,076	NA	NA
Operable Refinery Capacity	15,533	15,540	15,498	15,496	15,527	15,527	15,543	15,559	15,712	15,666	NA	NA
Idle Capacity ¹	550	578	712	729	621	621	507	511	602	597	NA	NA
Idle Three Months or Less	135	154	293	258	133	130	34	11	106	123	NA	NA
Idle More than Three Months	415	424	419	471	488	491	473	500	496	474	NA	NA
Operating Capacity ²	14,983	14,962	14,786	14,767	14,906	14,906	15,036	15,048	15,111	15,069	NA	NA
Utilization Rate (percent)												
Operable Capacity	87.7	87.9	84.2	85.4	87.4	89.4	92.6	91.4	91.0	83.5	NA	NA
Operating Capacity	91.0	91.3	88.2	89.6	91.0	93.2	95.8	94.5	94.6	86.8	NA	NA

¹ Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.

² Operating capacity equals the operable capacity less the total idle capacity.
NA= Not Available.

Sources: Energy Information Administration, *Petroleum Supply Monthly*, 1990 issues, Table 18; *Petroleum Supply Annual*, Volume 2, 1989, Table 16; Form EIA- 810, "Monthly Refinery Report."

increase in demand for ethane as a petrochemical feedstock, and an increase in propane demand for crop drying.

A moderate drawdown in LPG stocks brought the level to 117 million barrels at the end of October. The decline was partly to fill the increased demand for propane and ethane. Despite a drawdown in propane stocks, the propane situation at the end of October was encouraging for the first time since the severe drawdown occurred in December 1989. October was the first month of 1990 that propane stocks were above the year-earlier level, and within the normal monthly range.

Kerosene-Type Jet Fuel

Demand for kerosene-type jet fuel jumped to 1.4 million barrels per day in October, as commercial airlines offered a large variety of travel incentives in order to stimulate travel after the recent fare hikes. Consumers able to take advantage of the travel incentives paid only 2 to 3 percent more to fly than before the Persian Gulf crisis. Military demand for kerosene-type jet fuel continued to be strong, although it was lower than during the height of the military airlift during August and September for Operation Desert Shield. Of the major petroleum products, only kerosene-type jet fuel demand increased from the comparable 1989 level during the first 10 months of 1990. Demand was 4 percent higher this year.

Exports outpaced imports in October, with most going to Canada and the Far East. Before the Persian Gulf crisis, exports of jet fuel (including naphtha-type) to Canada averaged 8,000 barrels per day; in October, 28,000 barrels per day went to Canada. Shipments to the Far East averaged 7,000 barrels per day, then increased to 48,000 barrels per day in October.

Jet fuel prices continued to escalate through the second week in October, when the spot price reached \$1.46 per gallon, compared with 61 cents per gallon at the beginning of August 1990. Other producing countries increased crude oil production in October to offset the loss of Iraqi and Kuwaiti crude oil on the world market. This caused prices of crude oil and products to weaken. As a result, the spot price for kerosene-type jet fuel fell, and was \$1.07 at the end of October.

Crude Oil

Domestic crude oil production increased in October to 7.5 million barrels per day, with both Alaska and the Lower 48 States showing significant increases. Alaskan production rose to 1.9 million barrels per day, close to the October 1989 level. High crude oil prices and completion of summer maintenance and enhancement activities contributed to the increase. However, during the first 10 months of 1990, Alaskan crude oil production was 5 percent below the level for

Preliminary Impact of Cutoff of Iraqi and Kuwaiti Crude Oil On U.S. Refineries

Before the August 2, 1990 invasion of Kuwait, 23 U.S. refineries regularly received imports of crude oil from either Iraq or Kuwait. The individual refinery dependency of crude oil imports from these countries ranged from 1 to 92 percent. The following highlights changes in crude supply after the invasion at these refineries:

- By October 1990, imports of crude oil from Iraq and Kuwait had ceased. In addition, imports from Nigeria were at a sharply reduced level.
- The lost crude oil was mainly made up by increased imports from Saudi Arabia, Mexico, and Venezuela, as well as increased receipts of domestic crude oil.
- Refineries were able to offset all but 128,000 barrels per day of their total average refinery receipts for the first 7 months of the year.

Imports and Domestic Refinery Receipts of Crude Oil for U.S. Refineries Dependent on Iraqi and Kuwaiti Crude Oil, 1990

(Thousand Barrels per Day, Except Where Noted)

Country	Jan.-July Average	October	Difference
Iraq	667	0	-667
Kuwait	102	0	-102
Nigeria	338	30	-308
Saudi Arabia	499	857	+358
Mexico	411	523	+112
Venezuela	47	136	+ 88
All Other Countries	716	835	+119
Total Foreign Receipts	2,780	2,381	-399
Domestic Receipts	1,588	1,859	+271
Total Receipts	4,368	4,240	-128
Crude Oil Inputs	4,344	4,222	-122
Percent Utilization	88.8%	86.7%	

Note: Excludes SPR imports and imports to refineries that started importing Iraqi and Kuwaiti crude oil after June 1990.

Source: Energy Information Administration.

the comparable period in 1989 and production in the Lower-48 States was 4 percent below the comparable period in 1989.

The continued escalation in the world price of crude oil in September and early October further inhibited imports. The world oil price peaked at the end of September at \$36.11 per barrel, and remained near that level through October 19 before falling to \$28.58 late in October. As a result, crude oil imports (excluding the SPR) dropped for the third consecutive month. The curtailment of crude oil supplies from Iraq and Kuwait affected some U.S. refineries (See feature, this page). Imports

of 5.1 million barrels per day were significantly lower than the average monthly imports during 1990. Since Iraq's invasion of Kuwait on August 2, 1990, crude oil imports have been declining. For August through October, imports averaged 5.7 million barrels per day, compared with the average for January through July of 6.2 million barrels per day.

Despite the decline in imports, crude oil stocks (excluding the SPR) increased slightly to 346 million barrels at the end of October, due to a large reduction in refinery inputs of crude oil.

Refinery Utilization

The operable refinery utilization rate fell below 90 percent for the first time since June, as it declined substantially in October to 83.5 percent. Also, for the first time in several months the utilization rate was below the year-earlier level. Refinery inputs of crude oil were the lowest since February 1985. The decline was largely due to the increased cost of crude oil, which caused some refiners to reduce operations. In addition, process turnarounds continued in preparation for the winter. Gross inputs (crude and other oils) to atmospheric crude oil distillation units declined to 13.1 million barrels per day. The operating capacity, which reflects refinery utilization if all idle capacity is removed, declined to 86.8 percent in October (Table H2).

NEWS HIGHLIGHTS

Chevron to Begin Limited Production From Point Arguello Field

In the midst of the continuing controversy over procedures for transporting crude oil from the Point Arguello oil field, Chevron Corporation announced on November 27, 1990, that the field will be producing 20,000 barrels per day within 6 months. The Point Arguello field is located 10 miles off the coast of California, about 50 miles northwest of Santa Barbara. The field has become a symbol of the conflict between the Nation's need for domestic sources of energy and the need to protect the environment from oil spills. The decision to begin producing crude oil was made despite Chevron's inability to win a tanker permit from the State of California which would have allowed the crude oil to be shipped to refineries in the Los Angeles area. The Point Arguello field is believed to hold recoverable crude oil reserves of 300 million barrels and has a potential production capacity of 100,000 barrels per day. It is the largest U.S. oil discovery since the Prudhoe Bay, Alaska, discovery in the mid-1960's.

The most recent denial of a tanker permit will impede production increases that could reach 80,000 barrels per day if feasible transportation were in place to transport the larger volumes to the Los Angeles, California, area, where several large refineries could process the heavy crude oil. Plans are to transport the 20,000 barrels per day by pipeline to the Unocal refinery in central California, where up to 10,000 barrels per day can be processed. The remainder will be piped to Bakersfield, California, then northward to refineries in the San Francisco area.

Point Arguello production had been planned to start in the summer of 1989, but the offshore field has been idle since its completion in 1987 because of legal battles between Chevron and local authorities about viable methods of transporting Point Arguello crude oil to refineries in the Los Angeles area. Memories of the large oil spill from an offshore well off the

Santa Barbara coast in 1969, and the 1989 *Exxon Valdez* spill off of Alaska loom heavily in the conflict.

Local authorities denied the tanker permit based on the contention that pipeline transportation is more environmentally safe. Existing pipelines may not be economically feasible, because the crude oil would need to be blended with lighter crudes. An option under consideration is construction of an overland pipeline from Gaviota to Los Angeles.

The Department of Energy (DOE) recently attempted to mediate the dispute over the Point Arguello project. A compromise plan put forth by DOE would have allowed tanker transport of the oil for 4 years, while Chevron constructed the overland pipeline. This plan was also rejected by the Santa Barbara authorities.

OPEC Continues Using Excess Production Capacity

Members of the Organization of Petroleum Exporting Countries (OPEC) met on December 12 and 13, 1990, and agreed to allow member nations to continue pumping crude oil in excess of the assigned quotas until the Persian Gulf crisis is over. The most recent official production quota of 22.5 million barrels per day was implemented in July, just days before the August 2 Iraqi invasion of Kuwait. New quotas were established for individual countries in hopes of limiting production so that the price of crude oil would rise. The target price at the time was \$21 per barrel. Prices had been well below \$21 per barrel since early 1986. The OPEC oil ministers agreed to suspend production quotas after the United Nations embargo effectively removed about 4.3 million barrels of Iraqi and Kuwaiti crude oil from the world market. OPEC members with excess production capacity were encouraged to make up the lost supplies by increasing incremental output.

By mid-December, OPEC production was about 23 million barrels per day, close to the pre-invasion level.² The use of excess production capacity in Saudi Arabia, Venezuela, and the United Arab Emirates enabled these countries to achieve a combined production increase of about 4 million barrels per day by mid-December, almost the entire shortfall.

Between early August and mid-December, the world price of crude oil shot upward, then drifted downward. The world oil price peaked at \$36.11 at the end of September before drifting downward toward the end of October. The world price continued to drop through mid-December, and at the time of the OPEC meeting was about \$25 per barrel.³

Barring further upheavals in the Persian Gulf, the next OPEC meeting is scheduled for March 11, 1991.

² "OPEC Ministers See Price Collapse If Oil Glut Occurs", *The Wall Street Journal*, December 12, 1990, p. A2.

³ Energy Information Administration, *Weekly Petroleum Status Report*, December 14, 1990, p. 19.

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^a and Petroleum Products Overview

		Field Production			Stock Change ^b			Ending Stocks ^c
		Total Domestic ^d	Crude Oil	Natural Gas Plant Liquids	Crude Oil ^e	Petroleum Products	Petroleum Products Supplied	Crude Oil ^e and Petroleum Products
		Thousand Barrels per Day						Million Barrels
1973	Average	10,975	9,208	1,738	-1 ^f	146	17,308	1,008
1974	Average	10,498	8,774	1,688	62	117	16,653	^h 1,074
1975	Average	10,045	8,375	1,633	^h 17	^h 15	16,322	1,133
1976	Average	9,774	8,132	1,603	39	-96	17,461	1,112
1977	Average	9,913	8,245	1,618	170	378	18,431	1,312
1978	Average	10,328	8,707	1,567	78	-172	18,847	1,278
1979	Average	10,179	8,552	1,584	148	25	18,513	1,341
1980	Average	10,214	8,597	1,573	98	42	17,056	^h 1,392
1981	Average	10,230	8,572	1,609	^h 290	^h -130	16,058	1,484
1982	Average	10,252	8,649	1,550	138	-283	15,296	^h 1,430
1983	Average	10,299	8,688	1,559	^h 214	^h -234	15,231	1,454
1984	Average	10,554	8,879	1,630	199	81	15,726	1,558
1985	Average	10,836	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	January	9,876	8,250	1,579	-43	-294	17,403	1,597
	February	10,018	8,374	1,605	133	-868	17,760	1,576
	March	10,071	8,374	1,636	219	-748	17,612	1,559
	April	9,946	8,288	1,618	190	445	16,561	1,578
	May	9,899	8,229	1,627	96	1,048	16,197	1,614
	June	9,833	8,170	1,616	43	-109	17,059	1,612
	July	9,713	8,040	1,618	-261	819	16,695	1,629
	August	9,762	8,079	1,616	-488	307	17,482	1,624
	September	9,575	7,895	1,621	-83	245	17,072	1,628
	October	9,737	8,023	1,661	399	-333	17,580	1,630
	November	9,751	8,023	1,666	3	25	17,620	1,631
	December	9,641	7,942	1,634	-188	-911	18,365	1,597
	Average	9,818	8,140	1,625	1	-29	17,283	--
1989	January	9,678	7,937	1,664	179	563	17,269	1,620
	February	9,441	7,788	1,607	47	-733	17,920	1,601
	March	9,284	7,575	1,650	-127	-924	17,989	1,568
	April	9,501	7,772	1,674	494	413	16,624	1,596
	May	9,498	7,816	1,620	271	598	16,546	1,623
	June	9,188	7,624	1,507	-434	-64	17,497	1,608
	July	9,055	7,444	1,541	148	1,182	16,453	1,649
	August	9,106	7,544	1,504	283	-104	17,360	1,654
	September	9,096	7,548	1,480	-144	577	16,795	1,667
	October	8,983	7,453	1,478	73	-378	17,304	1,658
	November	9,084	7,536	1,483	541	-367	17,311	1,663
	December	8,734	7,337	1,343	-302	-2,335	18,858	1,581
	Average	9,219	7,613	1,546	86	-129	17,325	--
1990	January	^E 9,113	^E 7,522	1,525	377	1,189	16,968	1,632
	February	^E 9,093	^E 7,465	1,558	-316	577	17,024	1,639
	March	^E 8,986	^E 7,394	1,519	1,030	-883	17,083	1,643
	April	^E 8,883	^E 7,331	1,481	-94	-25	16,666	1,640
	May	^E 8,838	^E 7,259	1,499	501	505	16,843	1,671
	June	^E 8,602	^E 7,076	1,453	75	348	17,112	1,684
	July	^E 8,694	^E 7,144	1,480	-152	1,019	16,856	1,711
	August	^E 8,842	^E 7,215	1,562	-227	-92	17,936	1,701
	September	^E 8,819	^E 7,167	1,587	-884	901	16,437	1,701
	October ^f	^{RE} 9,192	^{RE} 7,454	^R 1,654	^R 101	^R -829	^R 16,851	^R 1,679
	November ^g	^{PE} 8,839	^{PE} 7,187	^E 1,569	^E -246	^E -405	^E 16,763	^E 1,669
	11-Mo. Average	^{PE} 8,900	^{PE} 7,292	^E 1,535	^E 22	^E 206	^E 16,560	--
1989	11-Mo. Average	9,264	7,639	1,564	122	76	17,183	--
1988	11-Mo. Average	9,834	8,158	1,624	18	53	17,183	--

^a Includes lease condensate.^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 Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.^e Includes stocks located in the Strategic Petroleum Reserve.^f Includes crude oil for storage in the Strategic Petroleum Reserve.^g Net Imports equal Imports minus Exports.^h In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations.

See Explanatory Note 11.

Footnotes continued on following page.

Table S1. Crude Oil^a and Petroleum Products Overview (Continued)

		Imports			Exports			Net Imports ^g
		Total	Crude Oil ^f	Petroleum Products	Total	Crude Oil	Petroleum Products	
1973	Average	6,256	3,244	3,012	231	2	229	6,025
1974	Average	6,112	3,477	2,835	221	3	218	5,892
1975	Average	6,056	4,105	1,951	209	6	204	5,846
1976	Average	7,313	5,287	2,026	223	8	215	7,090
1977	Average	8,807	6,615	2,193	243	50	193	8,565
1978	Average	8,363	6,356	2,008	362	158	204	8,002
1979	Average	8,456	6,519	1,937	472	235	237	7,984
1980	Average	6,909	5,263	1,646	544	287	258	6,365
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	January	7,181	4,662	2,519	885	206	679	6,296
	February	7,256	4,650	2,605	864	146	718	6,392
	March	6,944	4,868	2,076	834	213	622	6,110
	April	7,270	5,167	2,103	676	114	562	6,594
	May	7,469	5,339	2,130	814	138	676	6,655
	June	7,239	5,322	1,917	938	138	800	6,301
	July	7,297	5,100	2,197	826	186	640	6,471
	August	7,386	5,089	2,296	814	152	661	6,572
	September	7,506	5,212	2,294	673	119	554	6,833
	October	7,830	5,551	2,279	732	166	566	7,098
	November	7,714	5,070	2,644	717	148	569	6,997
	December	7,727	5,230	2,497	1,008	129	879	6,719
	Average	7,402	5,107	2,295	815	155	661	6,587
1989	January	8,255	5,661	2,594	761	137	624	7,494
	February	8,032	5,305	2,727	875	208	666	7,157
	March	7,456	5,035	2,421	860	156	704	6,596
	April	8,078	5,750	2,328	810	139	670	7,268
	May	7,778	5,729	2,049	791	131	661	6,986
	June	7,977	5,976	2,002	975	243	732	7,002
	July	8,369	6,214	2,155	780	69	711	7,589
	August	8,560	6,565	1,995	967	162	805	7,593
	September	8,002	6,028	1,975	655	32	623	7,347
	October	8,301	6,187	2,115	791	61	730	7,511
	November	8,341	6,171	2,170	975	120	855	7,366
	December	7,579	5,463	2,116	1,067	247	821	6,512
	Average	8,061	5,843	2,217	859	142	717	7,202
1990	January	9,147	6,206	2,941	710	132	578	8,437
	February	8,306	5,858	2,447	822	102	720	7,483
	March	7,925	6,125	1,800	881	133	748	7,045
	April	7,758	5,740	2,018	761	112	649	6,997
	May	8,738	6,438	2,300	690	112	578	8,048
	June	8,690	6,413	2,276	804	88	715	7,886
	July	8,893	6,812	2,081	696	89	606	8,197
	August	8,558	6,432	2,127	850	64	785	7,709
	September	7,336	5,656	1,680	847	68	779	6,489
	October*	R 6,701	R 5,132	R 1,569	R 949	R 104	R 844	R 5,752
	November**	E 6,915	E 5,044	E 1,871	E 848	E 65	E 783	E 6,067
	11-Mo. Average	E 8,091	E 5,991	E 2,099	E 805	E 97	E 707	E 7,286
1989	11-Mo. Average	8,105	5,878	2,227	839	132	708	7,266
1988	11-Mo. Average	7,372	5,095	2,277	798	157	640	6,574

Footnotes continued.

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

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See 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 the last page of this section.

Figure S1. Petroleum Overview

(Thousand Barrels per Day)

Figure S2. Petroleum Products Supplied

(Thousand Barrels per Day)

Figure S3. Crude Oil Supply and Disposition

(Thousand Barrels per Day)

Legend:

Refinery Inputs

Domestic Crude Oil Production

Net Imports (excludes SPR)

Figure S4. Crude Oil Ending Stocks

(Million Barrels)

Legend:

Other Primary

SPR

Average Stock Range (excludes SPR)
(See Explanatory Note 6.)

Table S2. Crude Oil^a Supply and Disposition

		Supply						Disposition	
		Field Production		Imports					
		Total Domestic	Alaskan	Total	SPR ^d	Other	Unaccounted for Crude Oil ^e	Crude Used Directly ^f	Crude Losses
Thousand Barrels per Day									
1973	Average	9,208	198	3,244	--	3,244	3	-19	13
1974	Average	8,774	193	3,477	--	3,477	-25	-15	13
1975	Average	8,375	191	4,105	--	4,105	17	-17	13
1976	Average	8,132	173	5,287	--	5,287	77	-18	15
1977	Average	8,245	484	6,615	21	6,594	-6	-14	16
1978	Average	8,707	1,229	6,358	162	6,195	-57	-14	16
1979	Average	8,552	1,401	6,519	67	6,452	-11	-13	16
1980	Average	8,597	1,817	5,263	44	5,219	34	-13	15
1981	Average	8,572	1,609	4,396	256	4,141	83	-58	5
1982	Average	8,649	1,696	3,488	165	3,323	71	-59	3
1983	Average	8,688	1,714	3,329	234	3,096	114	--	2
1984	Average	8,879	1,722	3,426	197	3,229	185	--	2
1985	Average	8,971	1,825	3,201	118	3,083	145	--	1
1986	Average	8,680	1,867	4,178	48	4,130	139	--	(s)
1987	Average	8,349	1,962	4,674	73	4,601	145	--	(s)
1988	January	8,250	1,999	4,662	67	4,595	216	--	(s)
	February	8,374	2,070	4,650	49	4,601	-50	--	(s)
	March	8,374	2,086	4,868	23	4,845	258	--	(s)
	April	8,288	2,029	5,167	78	5,090	27	--	(s)
	May	8,229	2,016	5,339	22	5,317	125	--	(s)
	June	8,170	1,984	5,322	70	5,252	208	--	(s)
	July	8,040	1,960	5,100	42	5,058	432	--	1
	August	8,079	2,009	5,089	26	5,064	278	--	(s)
	September	7,895	2,019	5,212	84	5,128	228	--	(s)
	October	8,023	2,010	5,551	43	5,508	160	--	(s)
	November	8,023	2,027	5,070	89	4,981	258	--	(s)
	December	7,942	1,996	5,230	27	5,203	196	--	(s)
	Average	8,140	2,017	5,107	51	5,055	196	--	(s)
1989	January	7,937	1,958	5,661	65	5,596	94	--	(s)
	February	7,788	1,962	5,305	84	5,221	-26	--	(s)
	March	7,575	1,686	5,035	75	4,960	426	--	(s)
	April	7,772	1,890	5,750	59	5,690	91	--	(s)
	May	7,816	1,973	5,729	77	5,652	280	--	(s)
	June	7,624	1,861	5,976	55	5,920	135	--	(s)
	July	7,444	1,725	6,214	75	6,139	426	--	(s)
	August	7,544	1,870	6,565	32	6,533	213	--	(s)
	September	7,548	1,875	6,028	59	5,969	121	--	1
	October	7,453	1,877	6,187	37	6,149	-125	--	0
	November	7,536	1,915	6,171	41	6,131	397	--	(s)
	December	7,337	1,904	5,463	12	5,452	343	--	(s)
	Average	7,613	1,874	5,843	56	5,787	200	--	(s)
1990	January	E 7,522	E 1,864	6,206	24	6,182	321	--	(s)
	February	E 7,465	E 1,834	5,858	12	5,847	-9	--	0
	March	E 7,394	E 1,819	6,125	44	6,081	544	--	0
	April	E 7,331	E 1,803	5,740	38	5,702	22	--	(s)
	May	E 7,259	E 1,766	6,438	89	6,349	335	--	0
	June	E 7,076	E 1,613	6,413	17	6,397	394	--	(s)
	July	E 7,144	E 1,687	6,812	0	6,812	220	--	0
	August	E 7,215	E 1,736	6,432	95	6,337	348	--	(s)
	September	E 7,167	E 1,702	5,656	0	5,656	480	--	(s)
	October*	RE 7,454	RE 1,885	R 5,132	0	R 5,132	R 460	--	(s)
	November**	PE 7,187	PE 1,739	E 5,044	E 0	E 5,044	E 528	--	(s)
	11-Mo. Average	PE 7,292	PE 1,768	E 5,991	E 29	E 5,982	E 334	--	(s)
1989	11-Mo. Average	7,639	1,871	5,878	60	5,819	187	--	(s)
1988	11-Mo. Average	8,158	2,019	5,095	53	5,042	196	--	(s)

^a Includes lease condensate.^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 Strategic Petroleum Reserve.^e Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.^f Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.^g Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock changes are calculated using new basis stock levels. See Explanatory Notes 11, 12, and 13.

Footnotes continued on following page.

Table S2. Crude Oil^a Supply and Disposition (Continued)

		Disposition					Ending Stocks ^b		
		Stock Change ^c		Refinery Inputs	Exports	Product Supplied ^f	Total	SPR ^d	Other Primary
		SPR ^d	Other						
1973	Average	--	-11	12,431	2	--	242	--	242
1974	Average	--	62	12,133	3	--	285	--	285
1975	Average	--	17	12,442	8	--	271	--	271
1976	Average	--	39	13,416	8	--	285	--	285
1977	Average	20	150	14,602	50	--	348	7	340
1978	Average	163	-84	14,739	158	--	376	67	309
1979	Average	67	81	14,648	235	--	430	91	339
1980	Average	45	52	13,481	287	--	488	108	358
1981	Average	338	-46	12,470	228	--	594	230	363
1982	Average	174	-38	11,774	236	--	644	294	350
1983	Average	234	-20	11,685	164	68	723	379	344
1984	Average	195	4	12,044	181	64	796	451	345
1985	Average	117	-67	12,002	204	60	814	493	321
1986	Average	50	28	12,716	154	49	843	512	331
1987	Average	80	49	12,854	151	34	890	541	349
1988	January	67	-110	12,920	206	45	888	543	346
	February	49	84	12,644	146	52	892	544	348
	March	26	193	13,016	213	52	899	545	354
	April	77	112	13,135	114	42	905	547	357
	May	22	74	13,425	138	34	908	548	360
	June	70	-27	13,487	138	32	909	550	359
	July	42	-302	13,617	186	29	901	551	349
	August	26	-514	13,752	152	30	886	552	334
	September	84	-167	13,261	119	37	883	555	329
	October	43	356	13,126	166	42	896	556	340
	November	89	-86	13,156	148	44	896	559	337
	December	27	-215	13,381	129	44	890	560	330
	Average	52	-51	13,246	155	40	--	--	--
1989	January	65	115	13,330	137	47	895	562	334
	February	85	-38	12,765	208	48	897	564	333
	March	75	-202	12,963	156	45	893	566	327
	April	60	434	12,956	139	23	908	568	340
	May	77	194	13,405	131	19	916	570	346
	June	44	-478	13,905	243	20	903	572	331
	July	86	62	13,848	69	19	908	574	333
	August	32	251	13,861	162	17	916	575	341
	September	59	-203	13,791	32	18	912	577	335
	October	37	36	13,360	61	21	914	578	336
	November	41	500	13,420	120	25	930	579	351
	December	12	-313	13,165	247	33	921	580	341
	Average	56	30	13,401	142	28	--	--	--
1990	January	24	353	13,499	132	40	933	581	352
	February	12	-328	13,494	102	36	924	581	343
	March	44	986	12,876	133	24	956	582	374
	April	38	-132	13,051	112	24	953	583	370
	May	89	412	13,389	112	30	969	586	382
	June	16	59	13,690	88	29	971	587	384
	July	0	-152	14,208	89	31	966	587	380
	August	94	-321	14,140	64	18	959	590	370
	September	(8)	-884	14,105	68	14	933	590	343
	October*	R -8	R 109	R 12,825	R 104	R 15	R 936	R 589	R 346
	November**	E -88	E -158	E 12,971	E 65	E 17	E 932	E 587	E 345
	11-Mo. Average	E 21	E 1	E 13,477	E 97	E 25	--	--	--
1989	11-Mo. Average	60	62	13,423	132	27	--	--	--
1988	11-Mo. Average	54	-38	13,234	157	40	--	--	--

Footnotes continued.

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

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See 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 the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources ^a										
		Algeria	Libya	Saudi Arabia ^c	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ^d	Total OPEC ^d	Total Arab OPEC ^e
		Thousand Barrels per Day										
1973	Average	136	184	486	71	213	223	459	1,135	106	2,993	915
1974	Average	190	4	461	74	300	462	713	979	88	3,280	752
1975	Average	282	232	715	117	390	280	762	702	122	3,801	1,383
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
1977	Average	559	723	1,380	335	541	535	1,143	890	287	6,193	3,185
1978	Average	649	654	1,144	385	573	555	919	845	226	5,751	2,963
1979	Average	836	658	1,356	281	420	304	1,080	690	212	5,837	3,056
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300	2,551
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323	1,848
1982	Average	170	26	552	92	248	35	514	412	97	2,146	854
1983	Average	240	0	337	30	338	48	302	422	144	1,862	632
1984	Average	323	1	325	117	343	10	216	548	166	2,049	819
1985	Average	187	4	168	45	314	27	293	605	187	1,830	472
1986	Average	271	0	685	44	318	19	440	793	265	2,837	1,162
1987	Average	295	0	751	61	285	98	535	804	231	3,060	1,274
1988	January	333	0	849	61	179	1	406	766	540	3,134	1,652
	February	358	0	1,265	79	194	0	506	846	214	3,461	1,883
	March	259	0	937	6	127	0	589	803	352	3,073	1,509
	April	342	0	929	48	166	0	711	833	385	3,413	1,610
	May	320	0	1,041	41	298	0	601	841	360	3,501	1,724
	June	262	0	923	11	184	0	875	850	527	3,632	1,635
	July	225	0	1,076	43	216	0	715	724	590	3,589	1,911
	August	257	0	1,169	0	153	0	623	830	669	3,703	2,036
	September	289	0	1,066	22	242	0	546	824	697	3,685	2,042
	October	326	0	1,244	16	265	0	686	772	552	3,861	2,069
	November	322	0	986	0	240	0	489	779	694	3,510	1,914
	December	312	0	1,289	19	194	0	667	669	524	3,674	2,080
	Average	300	0	1,064	29	205	(b)	618	754	510	3,520	1,839
1989	January	335	0	1,449	59	218	0	782	941	429	4,212	2,219
	February	310	0	1,290	17	292	0	567	775	593	3,845	2,126
	March	272	0	1,108	64	167	0	702	909	471	3,693	1,805
	April	235	0	1,226	14	128	0	750	831	743	3,927	2,030
	May	272	0	1,155	61	264	0	789	853	630	4,025	1,977
	June	205	0	1,249	17	138	0	864	778	856	4,106	2,164
	July	263	0	1,182	0	113	0	1,094	794	992	4,437	2,308
	August	216	0	1,316	44	115	0	946	834	1,060	4,531	2,453
	September	256	0	1,109	20	113	0	867	914	957	4,236	2,195
	October	250	0	1,158	14	167	0	713	1,004	872	4,177	2,122
	November	323	0	1,342	0	231	0	770	924	762	4,353	2,257
	December	288	0	1,115	26	263	0	915	903	602	4,111	1,905
	Average	269	0	1,224	28	183	0	815	873	748	4,140	2,130
1990	January	418	0	1,212	37	137	0	830	1,138	1,047	4,819	2,592
	February	280	0	1,557	18	260	0	833	890	753	4,590	2,504
	March	301	0	1,157	17	138	0	1,054	878	824	4,368	2,115
	April	234	0	1,149	9	88	0	969	1,005	742	4,196	2,073
	May	247	0	1,225	73	77	0	1,008	1,087	836	4,554	2,337
	June	333	0	1,137	20	138	0	778	1,070	960	4,435	2,293
	July	308	0	1,369	13	143	0	830	999	1,291	4,954	2,853
	August	349	0	1,189	0	83	0	881	1,013	1,378	4,894	2,716
	September	279	0	1,286	0	111	0	755	1,054	452	3,936	1,915
	October	173	0	1,613	0	88	0	557	979	99	3,509	1,786
	10-Mo. Average	292	0	1,288	19	125	0	850	1,012	840	4,426	2,319
1989	10-Mo. Average	281	0	1,224	31	171	0	809	865	761	4,122	2,140
1988	10-Mo. Average	297	0	1,049	32	202	(b)	626	808	490	3,505	1,807

^a 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.

^b Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

^c The other members of OPEC are Ecuador, Gabon, Iraq, Kuwait, and Qatar. Prior to January 1988, imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from Saudi Arabia. From January 1988 forward, those imports are included in imports from "Other OPEC".

^d "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members. Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from "Total OPEC".

^e The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources ^b										
		Bahamas	Canada	Mexico	Nether-lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
		Thousand Barrels per Day										
1973	Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	Average	152	848	71	332	242	14	90	406	300	2,454	6,056
1976	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	Average	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	Average	125	547	826	169	96	382	40	282	701	3,189	5,051
1984	Average	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	Average	40	770	818	40	113	310	28	247	873	3,237	5,067
1986	Average	37	848	699	25	125	350	21	244	1,080	3,387	6,224
1987	Average	37	848	655	29	106	352	21	272	1,296	3,617	6,678
1988	January	51	959	808	40	97	313	29	341	1,410	4,047	7,181
	February	79	1,033	710	21	93	334	16	200	1,308	3,794	7,256
	March	47	1,002	745	46	89	461	22	180	1,280	3,871	6,944
	April	26	985	678	43	82	594	29	193	1,227	3,857	7,270
	May	24	1,001	722	27	102	389	20	257	1,426	3,968	7,469
	June	15	1,032	766	31	112	232	13	212	1,194	3,607	7,239
	July	15	972	723	35	96	214	22	215	1,416	3,708	7,297
	August	12	1,009	704	32	97	111	23	172	1,523	3,683	7,386
	September	37	938	843	25	96	149	29	236	1,469	3,820	7,506
	October	13	996	743	17	98	447	21	234	1,398	3,969	7,830
	November	27	1,080	811	72	80	246	15	286	1,587	4,204	7,714
	December	40	990	711	40	125	294	28	372	1,453	4,053	7,727
	Average	32	999	747	36	97	315	22	242	1,392	3,882	7,402
1989	January	53	1,065	809	59	105	215	30	415	1,293	4,043	8,255
	February	24	1,007	756	44	92	221	24	369	1,649	4,186	8,032
	March	41	961	667	52	82	174	38	324	1,424	3,763	7,456
	April	55	877	1,002	14	117	148	24	407	1,507	4,151	8,078
	May	29	901	808	32	68	202	46	379	1,288	3,753	7,778
	June	28	921	688	34	143	181	32	363	1,481	3,871	7,977
	July	32	849	758	49	89	328	39	331	1,458	3,932	8,369
	August	19	911	806	43	101	370	21	239	1,519	4,029	8,560
	September	8	949	721	35	95	191	33	190	1,545	3,766	8,002
	October	44	857	837	38	71	309	32	180	1,756	4,124	8,301
	November	41	911	743	72	81	165	42	279	1,645	3,988	8,341
	December	29	973	610	29	81	78	24	377	1,266	3,468	7,579
	Average	34	931	767	42	94	215	32	321	1,484	3,921	8,061
1990	January	74	952	789	9	109	219	35	409	1,732	4,328	9,147
	February	74	919	722	27	89	74	32	323	1,456	3,716	8,306
	March	35	823	812	10	103	273	32	264	1,205	3,557	7,925
	April	51	908	466	29	114	274	33	283	1,404	3,562	7,758
	May	29	994	778	20	88	347	38	285	1,604	4,184	8,738
	June	36	927	912	21	118	249	27	299	1,666	4,255	8,690
	July	25	882	695	30	107	211	35	252	1,701	3,939	8,893
	August	40	941	773	41	108	170	29	230	1,331	3,665	8,558
	September	45	916	871	33	89	155	20	240	1,031	3,399	7,336
	October	9	910	828	43	83	81	29	204	1,006	3,192	6,701
	10-Mo. Average ...	42	917	785	26	101	206	31	278	1,414	3,781	8,207
1989	10-Mo. Average ...	33	929	785	40	96	234	32	319	1,490	3,960	8,082
1988	10-Mo. Average ...	32	912	744	32	96	324	22	224	1,366	3,833	7,338

Footnotes continued.

A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) 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: * Beginning in October 1977, Strategic Petroleum Reserve imports are included. * Geographic coverage is the 50 States and the District of Columbia. * Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

(Thousand Barrels per Day)

Figure S6. Motor Gasoline Ending Stocks

(Million Barrels)

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply		Disposition					Ending Stocks ^a	
		Total Production	Imports ^b	Stock Change ^{b,c}	Exports	Product Supplied			Total Motor Gasoline ^e	Finished Motor Gasoline
						Total ^d	Unleaded	Unleaded		
Thousand Barrels per Day							Percent of Total	Million Barrels		
1973	Average	6,535	134	-9	4	6,674	--	--	209	--
1974	Average	6,360	204	24	2	6,537	--	--	218	--
1975	Average	6,520	184	28	2	6,675	--	--	235	--
1976	Average	6,841	131	-10	3	6,978	--	--	231	--
1977	Average	7,033	217	72	2	7,177	1,976	27.5	258	--
1978	Average	7,169	190	-54	1	7,412	2,521	34.0	239	--
1979	Average	6,852	181	-2	(8)	7,034	2,798	39.8	237	--
1980	Average	6,506	140	66	1	6,579	3,067	46.6	261	--
1981	Average ^d	6,405	157	-28	2	6,588	3,264	49.5	253	--
1982	Average	6,338	197	-25	20	6,539	3,409	52.1	235	--
1983	Average	6,340	247	-45	10	6,622	3,647	55.1	222	168
1984	Average	6,453	299	54	6	6,693	3,987	59.6	243	205
1985	Average	6,419	381	-41	10	6,831	4,406	64.5	223	190
1986	Average	6,752	326	11	33	7,034	4,854	69.0	233	194
1987	Average	6,841	384	-15	25	7,206	5,470	75.9	226	189
1988	January	6,730	357	387	8	6,693	5,395	80.6	240	201
	February	6,736	397	75	18	7,039	5,607	79.7	241	203
	March	6,715	349	-277	18	7,323	5,894	80.5	232	194
	April	6,907	399	-142	18	7,430	5,991	80.6	227	190
	May	6,851	437	-43	28	7,303	5,861	80.3	226	189
	June	6,982	428	-465	59	7,817	6,336	81.1	210	175
	July	7,159	482	148	12	7,482	6,144	82.1	215	179
	August	7,209	494	131	15	7,556	6,232	82.5	220	184
	September	6,948	443	-28	16	7,404	6,115	82.6	221	183
	October	6,858	352	-75	13	7,271	5,988	82.4	218	180
	November	7,060	451	118	15	7,379	6,157	83.4	221	184
	December	7,303	277	192	45	7,344	6,220	84.7	228	190
	Average	6,956	405	3	22	7,336	5,995	81.7	--	--
1989	January	6,937	353	512	33	6,745	5,754	85.3	249	206
	February	6,650	423	-70	24	7,119	6,141	86.3	248	204
	March	6,612	381	-171	43	7,421	6,380	86.0	230	189
	April	6,811	370	-22	46	7,157	6,248	87.3	227	188
	May	6,894	355	-163	31	7,381	6,454	87.5	223	183
	June	7,275	386	-180	60	7,780	6,864	88.2	216	178
	July	7,360	383	390	57	7,296	6,509	89.2	229	190
	August	7,155	360	-260	58	7,717	6,934	89.8	221	182
	September	7,069	320	118	31	7,240	6,443	89.0	227	186
	October	6,845	389	-97	29	7,302	6,642	91.0	222	183
	November	7,046	406	81	18	7,353	6,756	91.9	224	185
	December	6,884	303	-257	37	7,410	6,927	93.5	213	177
	Average	6,963	369	-35	39	7,328	6,507	88.8	--	--
1990	January	6,889	417	599	31	6,675	6,272	94.0	236	196
	February	6,978	407	204	53	7,129	6,657	93.4	246	201
	March	6,612	265	-493	45	7,325	6,881	93.9	228	186
	April	6,764	327	-52	28	7,116	6,696	94.1	224	184
	May	6,599	535	-196	25	7,304	6,884	94.2	218	178
	June	7,084	361	-86	52	7,478	7,059	94.4	213	176
	July	7,230	372	146	41	7,415	7,012	94.6	219	180
	August	7,315	313	-220	77	7,771	7,360	94.7	211	174
	September	7,251	254	505	103	6,897	6,574	95.3	230	189
	October ^e	6,890	192	-210	90	7,201	6,854	95.2	223	182
	November ^e	6,890	305	-113	84	7,224	6,911	95.7	219	179
	11-Mo. Average	6,954	340	-5	57	7,232	6,834	94.5	--	--
1989	11-Mo. Average	6,970	375	-14	39	7,320	6,468	88.3	--	--
1988	11-Mo. Average	6,924	417	-15	20	7,336	5,975	81.4	--	--

Figure S7. Distillate Fuel Oil Supply and Disposition

(Thousand Barrels per Day)

Figure S8. Distillate Fuel Oil Ending Stocks

(Million Barrels)

Table S5. Distillate Fuel Oil Supply and Disposition

		Supply			Disposition			Ending Stocks ^c
		Total Production	Imports	Crude Used Directly ^a	Stock Change ^b	Exports	Product Supplied ^a	
Thousand Barrels per Day								Million Barrels
1973	Average	2,822	392	2	115	9	3,092	196
1974	Average	2,669	289	2	9	2	2,948	^d 200
1975	Average	2,854	155	2	^d -40	1	2,851	209
1976	Average	2,924	146	1	-62	1	3,133	186
1977	Average	3,278	250	1	176	1	3,352	250
1978	Average	3,167	173	1	-93	3	3,432	216
1979	Average	3,163	193	1	34	3	3,311	229
1980	Average	2,662	142	1	-64	3	2,866	^d 205
1981	Average ^e	2,613	173	10	^d -38	5	2,829	192
1982	Average	2,606	93	10	-35	74	2,671	^d 179
1983	Average	2,456	174	-	^d -124	64	2,690	140
1984	Average	2,681	272	-	57	51	2,845	161
1985	Average	2,687	200	-	-48	67	2,868	144
1986	Average	2,798	247	-	31	100	2,914	155
1987	Average	2,731	255	-	-56	66	2,976	134
1988	January	3,010	424	-	-206	82	3,558	128
	February	2,667	383	-	-614	107	3,557	110
	March	2,706	247	-	-660	74	3,539	90
	April	2,867	210	-	171	42	2,864	95
	May	2,936	253	-	320	74	2,795	105
	June	2,893	222	-	185	76	2,854	110
	July	2,784	222	-	308	58	2,640	120
	August	2,848	279	-	185	70	2,873	126
	September	2,778	307	-	192	72	2,821	131
	October	2,827	336	-	-103	48	3,218	128
	November	2,909	327	-	19	34	3,183	129
	December	3,068	409	-	-171	87	3,560	124
	Average	2,859	302	-	-30	69	3,122	-
1989	January	2,974	346	-	-93	110	3,303	121
	February	2,797	331	-	-463	164	3,427	108
	March	2,713	439	-	-352	76	3,428	97
	April	2,789	301	-	60	56	2,975	99
	May	2,750	290	-	35	51	2,954	100
	June	2,809	233	-	(s)	39	3,002	100
	July	2,848	334	-	498	89	2,596	115
	August	2,907	254	-	41	154	2,966	116
	September	2,952	249	-	231	81	2,889	123
	October	2,906	261	-	-50	90	3,127	122
	November	3,063	307	-	-84	123	3,311	120
	December	3,266	324	-	-454	130	3,914	106
	Average	2,899	306	-	-49	97	3,157	-
1990	January	3,136	501	-	398	62	3,177	118
	February	2,753	357	-	-204	65	3,250	112
	March	2,655	280	-	-405	75	3,265	100
	April	2,802	308	-	-8	59	3,059	99
	May	2,873	207	-	109	75	2,897	103
	June	2,995	257	-	219	84	2,949	109
	July	3,006	229	-	512	30	2,693	125
	August	3,131	292	-	188	51	3,184	131
	September	2,967	226	-	180	123	2,890	136
	October ^a	^R 2,933	^R 190	-	^R 10	^R 150	^R 2,963	^R 137
	November ^a	^E 2,922	^E 219	-	^E -124	^E 70	^E 3,195	^E 134
	11-Mo. Average	^E 2,926	^E 278	-	^E 82	^E 77	^E 3,046	-
1989	11-Mo. Average	2,864	304	-	-11	93	3,086	-
1988	11-Mo. Average	2,839	292	-	-17	67	3,081	-

^a Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 7.

^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 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

^e Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

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

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See 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 the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

(Thousand Barrels per Day)

Figure S10. Residual Fuel Oil Ending Stocks

(Million Barrels)

Table S6. Residual Fuel Oil Supply and Disposition

		Supply			Disposition			Ending Stocks ^c
		Total Production	Imports	Crude Used Directly ^a	Stock Change ^b	Exports	Product Supplied ^a	
								Million Barrels
1973	Average	971	1,853	17	-5	23	2,822	53
1974	Average	1,070	1,587	13	17	14	2,639	^d 60
1975	Average	1,235	1,223	15	^d -2	15	2,462	74
1976	Average	1,377	1,413	17	-5	12	2,801	72
1977	Average	1,754	1,359	13	48	6	3,071	90
1978	Average	1,667	1,355	13	1	13	3,023	90
1979	Average	1,687	1,151	12	15	9	2,826	96
1980	Average	1,580	939	12	-10	33	2,508	^d 92
1981	Average ^a	1,321	800	48	^d -37	118	2,088	78
1982	Average	1,070	776	48	-32	209	1,716	^d 66
1983	Average	852	699	--	^d -55	185	1,421	49
1984	Average	891	681	--	12	190	1,389	53
1985	Average	882	510	--	-7	197	1,202	50
1986	Average	889	669	--	-8	147	1,418	47
1987	Average	885	565	--	(s)	186	1,264	47
1988	January	1,002	805	--	-44	190	1,661	46
	February	994	901	--	-33	229	1,698	45
	March	948	650	--	-43	165	1,476	44
	April	960	495	--	-33	170	1,318	43
	May	862	432	--	94	263	938	46
	June	880	336	--	-117	249	1,083	42
	July	906	479	--	-37	206	1,217	41
	August	866	581	--	-97	225	1,320	38
	September	852	698	--	220	100	1,230	45
	October	852	603	--	-68	181	1,343	42
	November	916	785	--	51	146	1,504	44
	December	1,069	975	--	20	271	1,754	45
	Average	926	644	--	-8	200	1,378	--
1989	January	949	909	--	84	151	1,623	47
	February	930	877	--	-58	146	1,719	46
	March	937	706	--	-128	220	1,551	42
	April	904	681	--	-52	236	1,401	40
	May	934	538	--	77	276	1,119	42
	June	953	533	--	54	208	1,223	44
	July	862	556	--	-44	176	1,286	43
	August	903	501	--	58	225	1,121	45
	September	856	454	--	162	137	1,010	49
	October	1,001	583	--	50	243	1,292	51
	November	1,075	543	--	48	330	1,240	52
	December	1,140	680	--	-275	226	1,870	44
	Average	954	629	--	-2	215	1,370	--
1990	January	1,129	809	--	191	186	1,561	50
	February	1,060	640	--	63	214	1,424	51
	March	974	334	--	-171	277	1,202	46
	April	880	555	--	93	200	1,142	49
	May	877	507	--	21	141	1,222	50
	June	926	536	--	-96	207	1,350	47
	July	987	535	--	72	171	1,279	49
	August	945	574	--	-25	280	1,263	48
	September	909	311	--	43	200	977	50
	October ^a	^R 802	^R 381	--	^R (s)	^R 160	^R 1,023	^R 50
	November ^a	^E 884	^E 347	--	^E 55	^E 259	^E 911	^E 50
	11-Mo. Average	^E 943	^E 502	--	^E 22	^E 208	^E 1,214	--
1989	11-Mo. Average	937	624	--	23	214	1,324	--
1988	11-Mo. Average	912	614	--	-10	193	1,343	--

^a Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 7.

^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 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

^e Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

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

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See 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 the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels per Day)

Figure S12. Liquefied Petroleum Gases Ending Stocks

(Million Barrels)

Table S7. Liquefied Petroleum Gases^a Supply and Disposition

		Supply		Disposition				Ending Stocks ^d
		Total Production	Imports	Stock Change ^b	Refinery Inputs	Exports	Product Supplied	
								Million Barrels
1973	Average	1,600	132	35	220	27	1,449	99
1974	Average	1,565	123	38	220	25	1,406	^d 113
1975	Average	1,527	112	^d 35	246	26	1,333	125
1976	Average	1,535	130	-24	260	25	1,404	116
1977	Average	1,566	161	55	233	18	1,422	136
1978	Average	1,537	123	-12	239	20	1,413	132
1979	Average	1,556	217	-70	236	15	1,592	111
1980	Average	1,535	216	27	233	21	1,469	^d 120
1981	Average	1,571	244	^d 18	289	42	1,466	135
1982	Average	1,528	226	-111	300	65	1,499	^d 94
1983	Average	1,642	190	^d -4	253	73	1,509	^d 101
1984	Average	1,697	195	^d -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	January	1,734	226	-566	383	44	2,099	80
	February	1,770	245	-328	366	47	1,929	70
	March	1,819	165	-50	292	36	1,707	68
	April	1,806	205	361	277	43	1,329	79
	May	1,817	165	343	277	37	1,324	90
	June	1,814	144	331	256	38	1,333	100
	July	1,842	233	380	248	35	1,412	112
	August	1,847	241	287	262	50	1,490	121
	September	1,841	194	20	274	43	1,698	121
	October	1,872	216	-47	318	56	1,761	120
	November	1,835	258	-206	445	71	1,782	114
	December	1,811	222	-522	461	85	2,010	97
	Average	1,817	209	1	321	49	1,656	-
1989	January	1,885	239	-335	422	19	2,018	87
	February	1,798	260	-333	328	31	2,032	78
	March	1,909	150	-85	274	43	1,827	75
	April	1,950	121	294	242	27	1,507	84
	May	1,943	110	428	226	43	1,357	97
	June	1,824	155	269	254	35	1,422	105
	July	1,850	192	407	247	45	1,343	118
	August	1,787	202	272	245	40	1,433	126
	September	1,737	182	-46	303	31	1,631	125
	October	1,679	176	-313	371	31	1,766	115
	November	1,643	179	-389	446	33	1,732	103
	December	1,483	205	-749	424	37	1,975	80
	Average	1,791	181	-47	315	35	1,668	-
1990	January	1,700	245	-174	416	44	1,660	76
	February	1,784	223	20	346	42	1,599	77
	March	1,760	152	42	205	44	1,620	78
	April	1,738	148	136	200	25	1,525	82
	May	1,760	189	279	216	36	1,417	91
	June	1,722	201	451	220	28	1,223	104
	July	1,750	156	259	230	36	1,379	112
	August	1,823	206	334	253	43	1,400	123
	September	1,788	147	55	298	41	1,540	124
	October ^e	1,784	155	-234	352	38	1,784	117
	10-Mo. Average	1,761	182	117	273	38	1,515	-
1989	10-Mo. Average	1,837	178	58	291	34	1,631	-
1988	10-Mo. Average	1,816	203	74	295	43	1,608	-

^a Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

^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 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations.

See Explanatory Note 11.

* See Explanatory Note 5.

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 the last page of this section.

Table S8. Other Petroleum Products^a Supply and Disposition

		Supply		Disposition					
		Total Production	Imports	Stock Change ^b	Refinery Inputs	Exports	Products Supplied	Ending Stocks ^b	
		Thousand Barrels per Day							Million Barrels
1973	Average	3,893	502	9	750	168	3,270	208	
1974	Average	3,558	432	28	665	174	3,123	^d 218	
1975	Average	3,418	277	^d -4	537	160	3,002	219	
1976	Average	3,643	206	5	524	175	3,145	220	
1977	Average	3,912	205	27	514	165	3,410	230	
1978	Average	4,046	166	-14	492	167	3,568	225	
1979	Average	4,153	195	37	352	209	3,749	238	
1980	Average	3,956	210	23	311	198	3,634	^d 247	
1981	Average	3,739	226	^d -46	723	199	3,088	282	
1982	Average	3,453	334	-80	787	211	2,889	^d 253	
1983	Average	3,460	411	^d -6	712	242	2,923	^d 256	
1984	Average	3,632	565	^d -23	791	245	3,183	240	
1985	Average	3,721	588	17	888	240	3,166	246	
1986	Average	3,997	561	10	888	308	3,353	250	
1987	Average	4,080	610	-1	829	289	3,572	250	
1988	January	3,942	706	136	812	354	3,347	254	
	February	3,905	680	31	753	318	3,484	255	
	March	4,147	666	282	687	328	3,515	264	
	April	4,010	794	87	851	288	3,577	266	
	May	4,071	843	335	501	274	3,803	277	
	June	4,265	787	-43	777	379	3,939	276	
	July	4,315	781	21	831	329	3,915	276	
	August	4,413	701	-199	796	302	4,215	270	
	September	4,245	651	-159	850	323	3,882	265	
	October	4,163	771	-40	762	268	3,944	264	
	November	4,068	823	43	818	303	3,728	265	
	December	4,155	613	-429	1,153	392	3,653	252	
	Average	4,143	735	6	799	321	3,751	--	
1989	January	4,198	746	396	706	311	3,532	264	
	February	3,957	837	191	726	302	3,574	270	
	March	4,067	745	112	660	321	3,718	273	
	April	3,953	854	133	808	306	3,561	277	
	May	4,131	755	221	688	260	3,718	284	
	June	4,375	655	-206	838	389	4,049	278	
	July	4,454	690	-69	955	344	3,913	276	
	August	4,436	677	-215	893	328	4,107	269	
	September	4,428	770	112	737	343	4,005	272	
	October	4,191	705	32	730	337	3,796	273	
	November	4,122	736	-43	900	351	3,650	272	
	December	3,763	600	-601	918	391	3,655	253	
	Average	4,174	733	4	797	332	3,774	--	
1990	January	4,014	970	176	699	255	3,854	259	
	February	4,255	819	495	645	347	3,597	273	
	March	4,115	769	144	787	306	3,646	278	
	April	4,125	679	-195	861	337	3,800	272	
	May	4,235	861	292	531	300	3,973	281	
	June	4,267	922	-141	904	345	4,082	277	
	July	4,581	789	30	954	327	4,059	278	
	August	4,519	741	-370	997	334	4,299	266	
	September	4,560	743	117	753	312	4,120	270	
	October	4,441	651	-395	1,216	407	3,865	257	
	10-Mo. Average	4,312	794	11	837	327	3,931	--	
1989	10-Mo. Average	4,221	746	70	774	324	3,799	--	
1988	10-Mo. Average	4,149	738	46	762	316	3,764	--	

^a Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

^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 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations.

See Explanatory Note 11.

* See Explanatory Note 5.

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 the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*.
2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
3. 1981 through 1989: EIA, *Petroleum Supply Annual*.
4. January 1990 through October 1990: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly*. (See Explanatory Note 5.)
5. November 1990: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 4.)
6. January 1990 through November 1990: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. (See Explanatory Note 8.)

Note: Additional source information by table is available in Appendix B (Explanatory Notes 5 and 6).

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, October 1990

Commodity	Current Month		Year to Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil				
Field Production				
(1) Alaska	E 58,420	E 1,885	E 538,299	E 1,771
(2) Lower 48 States	E 172,655	E 5,570	E 1,681,588	E 5,532
(3) Total U.S.	E 231,075	E 7,454	E 2,219,885	E 7,302
Net Imports				
(4) Imports (Gross Excluding Strategic Petroleum Reserve (SPR))	159,080	5,132	1,840,009	6,053
(5) SPR Imports	0	0	9,772	32
(6) Exports	3,233	104	30,590	101
(7) Imports (Net Including SPR)	155,847	5,027	1,819,191	5,984
Other Sources				
(8) SPR Stock Change (Withdrawal (+), Addition (-))	252	8	-9,502	-31
(9) Other Stock Change (Withdrawal (+), Addition (-))	-3,390	-109	-5,125	-17
(10) Product Supplied and Losses	-465	-15	-7,931	-26
(11) Unaccounted for ^a	14,283	460	95,741	315
(12) Total Other Sources	10,680	344	73,183	241
(13) Crude Input to Refineries	397,582	12,825	4,112,259	13,527
(13) = (3) + (7) + (12)				
Natural Gas Liquids (NGL)				
(14) Field Production	51,289	1,654	465,650	1,532
(15) Net Imports ^b	275	9	2,094	7
(16) Stock Change (Withdrawal (+), Addition (-)) ^b	587	19	1,304	4
(17) Total NGL Supply	52,151	1,682	469,048	1,543
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Change (Withdrawal (+), Addition (-))	9,922	320	-2,399	-8
(19) Imports	13,692	442	138,558	456
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	2,579	83	21,785	72
(21) Refinery Processing Gain ^a	22,306	720	202,906	667
(22) Crude Oil Product Supplied	459	15	7,909	26
(23) Total Other Liquids	48,958	1,579	368,759	1,213
(23) = (18) through (22)				
(24) Total Production of Products	498,691	16,087	4,950,066	16,283
(24) = (13) + (17) + (23)				
Net Imports of Refined Products				
(25) Imports (Gross)	34,651	1,118	503,986	1,658
(26) Exports	26,143	843	212,346	699
(27) Imports (Net)	8,508	274	291,640	959
(28) Total New Supply of Products	507,199	16,361	5,241,706	17,242
(28) = (24) + (27)				
(29) Refined Products Stock Change (Withdrawal (+), Addition (-))	15,187	490	-79,927	-263
(30) Total Petroleum Products Supplied for Domestic Use	522,386	16,851	5,161,779	16,980
(30) = (28) + (29)				
(31) Finished Motor Gasoline	223,242	7,201	2,199,783	7,233
(32) Distillate Fuel Oil	91,845	2,963	921,474	3,031
(33) Residual Fuel Oil	31,726	1,023	378,030	1,244
(34) Liquefied Petroleum Gases	55,291	1,784	460,499	1,515
(35) Other ^c	119,824	3,865	1,195,084	3,931
(36) Crude Oil	459	15	7,909	26
(37) Total Products Supplied	522,386	16,851	5,161,779	16,980
(37) = (31) through (36)				
Ending Stocks, All Oils				
(38) Crude Oil (Excluding SPR)	346,434	--	346,434	--
(39) Strategic Petroleum Reserve	589,359	--	589,359	--
(40) Finished Motor Gasoline	182,180	--	182,180	--
(41) Distillate Fuel Oil	136,812	--	136,812	--
(42) Residual Fuel Oil	49,540	--	49,540	--
(43) Liquefied Petroleum Gases	117,048	--	117,048	--
(44) Other ^c	257,327	--	257,327	--
(45) Total Stocks	1,678,700	--	1,678,700	--
(45) = (38) through (44)				

^a Unaccounted for crude oil and refinery processing gain are balancing items. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

^b Includes products in the pentanes plus category only.

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

(a) = Less than 500 barrels per day.

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 2. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products,
October 1990
(Thousand Barrels)**

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c	
Crude Oil	E 231,075	--	159,080	14,263	3,138	6	397,582	3,233	459	935,793
Natural Gas Liquids and LRGs	51,289	13,992	5,126	--	-7,830	--	16,512	1,203	60,522	124,214
Pentanes Plus	9,984	--	307	--	-587	--	5,815	32	5,231	7,166
Liquefied Petroleum Gases	41,305	13,992	4,819	--	-7,243	--	10,897	1,171	55,291	117,048
Ethane/Ethylene	16,586	504	321	--	-1,925	--	0	3	19,333	18,435
Propane/Propylene	15,074	13,009	2,744	--	-2,107	--	97	941	31,896	54,098
Normal Butane/Butylene	4,809	187	1,871	--	-3,090	--	6,038	227	3,492	33,269
Isobutane	4,836	292	83	--	-121	--	4,762	0	570	11,246
Other Liquids	2,579	--	13,692	--	-9,922	--	32,006	0	-5,893	145,892
Other Hydrocarbons/Alcohol	2,579	--	0	--	134	--	2,445	0	0	1,445
Unfinished Oils	--	--	12,943	--	-9,301	--	25,890	0	-3,646	103,775
Motor Gasoline Blend, Comp.	--	--	749	--	-772	--	3,768	0	-2,247	40,502
Aviation Gasoline Blend, Comp.	--	--	0	--	17	--	-17	0	0	170
Finished Petroleum Products	--	454,494	29,832	--	-7,944	--	--	24,972	467,298	472,801
Finished Motor Gasoline	--	213,580	5,949	--	-6,517	--	--	2,804	223,242	182,180
Leaded	--	10,098	7	--	-803	--	--	149	10,759	10,800
Unleaded	--	203,482	5,942	--	-5,714	--	--	2,656	212,482	171,580
Finished Aviation Gasoline	--	588	5	--	-98	--	--	0	691	1,696
Jet Fuel	--	49,514	2,008	--	1,352	--	--	2,402	47,766	51,323
Naphtha-Type	--	5,196	606	--	95	--	--	166	5,551	6,183
Kerosene-Type	--	44,318	1,400	--	1,257	--	--	2,246	42,215	45,140
Kerosene	--	2,412	21	--	57	--	--	798	1,580	6,495
Distillate Fuel Oil	--	90,922	5,884	--	315	--	--	4,646	91,845	136,812
Residual Fuel Oil	--	24,876	11,803	--	6	--	--	4,947	31,726	49,540
Naphtha for Petro. Feed, Use	--	4,089	1,000	--	59	--	--	108	4,922	1,488
Other Oils for Petro. Feed, Use	--	6,992	1,496	--	874	--	--	632	7,182	2,708
Special Naphthas	--	1,738	219	--	-110	--	--	1,000	1,067	2,565
Lubricants	--	4,988	336	--	-855	--	--	803	5,378	10,875
Waxes	--	546	46	--	-28	--	--	72	548	946
Petroleum Coke	--	16,935	22	--	-104	--	--	6,569	10,492	7,148
Asphalt and Road Oil	--	15,516	994	--	-2,787	--	--	152	19,145	16,391
Still Gas	--	19,518	0	--	0	--	--	0	19,518	0
Miscellaneous Products	--	2,280	51	--	92	--	--	39	2,200	2,634
Total	284,943	468,486	207,730	14,263	-22,558	6	446,180	29,408	522,386	1,678,700

^a Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

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

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

(s) = Less than 500 barrels.

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 3. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products,
January-October 1990**
(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c	
Crude Oil	E 2,219,885	--	1,849,781	95,741	14,827	22	4,112,259	30,590	7,909	935,793
Natural Gas Liquids and LRGs	465,650	162,768	57,872	--	34,238	--	137,006	11,925	503,121	124,214
Pentanes Plus	93,152	--	2,538	--	-1,304	--	53,928	442	42,822	7,166
Liquefied Petroleum Gases	372,498	162,768	55,338	--	35,542	--	83,078	11,483	460,499	117,048
Ethane/Ethylene	139,832	4,554	1,607	--	-4,908	--	58	23	150,820	18,435
Propane/Propylene	142,580	123,228	34,939	--	20,971	--	2,134	7,894	269,748	54,098
Normal Butane/Butylene	42,952	31,147	14,374	--	16,304	--	34,024	3,566	34,579	33,269
Isobutane	47,134	3,839	4,416	--	3,175	--	46,862	0	5,352	11,246
Other Liquids	21,785	--	138,558	--	2,399	--	200,402	0	-42,458	145,892
Other Hydrocarbons/Alcohol	21,785	--	0	--	763	--	21,022	0	0	1,445
Unfinished Oils	--	--	118,598	--	-2,418	--	178,337	0	-57,321	103,775
Motor Gasoline Blend. Comp.	--	--	19,980	--	4,042	--	1,102	0	14,816	40,502
Aviation Gasoline Blend. Comp.	--	--	0	--	12	--	-59	0	47	170
Finished Petroleum Products	--	4,489,805	448,850	--	44,385	--	--	200,863	4,693,207	472,801
Finished Motor Gasoline	--	2,115,913	104,582	--	5,101	--	--	16,591	2,198,783	182,180
Leaded	--	117,669	389	--	-7,081	--	--	1,732	123,407	10,600
Unleaded	--	1,998,244	104,173	--	12,182	--	--	14,859	2,075,376	171,580
Finished Aviation Gasoline	--	7,370	45	--	-375	--	--	0	7,790	1,698
Jet Fuel	--	437,333	32,319	--	10,421	--	--	9,671	449,560	51,323
Naphtha-Type	--	55,155	1,315	--	-248	--	--	1,494	55,224	6,183
Kerosene-Type	--	382,178	31,004	--	10,669	--	--	8,177	394,336	45,140
Kerosene	--	22,089	1,452	--	1,358	--	--	956	21,229	6,495
Distillate Fuel Oil	--	889,787	86,431	--	31,194	--	--	23,530	921,474	136,812
Residual Fuel Oil	--	288,311	157,291	--	5,731	--	--	61,841	378,030	49,540
Naphtha for Petro. Feed. Use	--	40,696	20,346	--	-469	--	--	1,461	60,050	1,488
Other Oils for Petro. Feed. Use	--	79,198	29,339	--	704	--	--	6,440	101,393	2,708
Special Naphthas	--	16,889	2,593	--	-443	--	--	3,197	16,728	2,565
Lubricants	--	50,611	2,968	--	-2,951	--	--	6,074	50,454	10,875
Waxes	--	5,190	355	--	-76	--	--	568	5,055	946
Petroleum Coke	--	167,308	595	--	-1,367	--	--	69,117	100,153	7,148
Asphalt and Road Oil	--	142,501	9,604	--	-4,224	--	--	820	155,709	16,391
Still Gas	--	206,801	0	--	0	--	--	0	206,801	0
Miscellaneous Products	--	19,828	552	--	-217	--	--	598	19,999	2,634
Total	2,707,320	4,652,573	2,494,861	95,741	95,649	22	4,440,667	243,378	5,161,779	1,678,700

^a Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

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

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

(s) = Less than 500 barrels.

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products,
October 1990**
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c
Crude Oil	E 7,454	--	5,132	460	101	(a)	12,825	104	15
Natural Gas Liquids and LRGs	1,654	451	165	--	-253	--	533	39	1,952
Pentanes Plus	322	--	10	--	-19	--	181	1	169
Liquefied Petroleum Gases	1,332	451	155	--	-234	--	352	38	1,784
Ethane/Ethylene	535	16	10	--	-62	--	0	(s)	624
Propane/Propylene	486	420	89	--	-68	--	3	30	1,029
Normal Butane/Butylene	155	6	54	--	-100	--	195	7	113
Isobutane	156	9	3	--	-4	--	154	0	18
Other Liquids	83	--	442	--	-320	--	1,035	0	-190
Other Hydrocarbons/Alcohol	83	--	0	--	4	--	79	0	0
Unfinished Oils	--	--	418	--	-300	--	835	0	-118
Motor Gasoline Blend. Comp.	--	--	24	--	-25	--	122	0	-72
Aviation Gasoline Blend. Comp.	--	--	0	--	1	--	-1	0	0
Finished Petroleum Products	--	14,661	982	--	-256	--	--	806	15,074
Finished Motor Gasoline	--	6,890	192	--	-210	--	--	90	7,201
Leaded	--	326	(s)	--	-26	--	--	5	347
Unleaded	--	6,564	192	--	-184	--	--	86	6,854
Finished Aviation Gasoline	--	19	(s)	--	-3	--	--	0	22
Jet Fuel	--	1,597	65	--	44	--	--	77	1,541
Naphtha-Type	--	168	20	--	3	--	--	5	179
Kerosene-Type	--	1,430	45	--	41	--	--	72	1,382
Kerosene	--	78	1	--	2	--	--	28	51
Distillate Fuel Oil	--	2,933	190	--	10	--	--	150	2,963
Residual Fuel Oil	--	802	381	--	(s)	--	--	160	1,023
Naphtha for Petro. Feed. Use	--	132	32	--	2	--	--	3	159
Other Oils for Petro. Feed. Use	--	226	48	--	22	--	--	20	232
Special Naphthas	--	56	7	--	-4	--	--	32	34
Lubricants	--	161	11	--	-28	--	--	26	173
Waxes	--	18	1	--	-1	--	--	2	18
Petroleum Coke	--	546	1	--	-3	--	--	212	338
Asphalt and Road Oil	--	501	32	--	-90	--	--	5	618
Still Gas	--	630	0	--	0	--	--	0	630
Miscellaneous Products	--	74	2	--	3	--	--	1	71
Total	9,192	15,112	6,701	460	-728	(a)	14,393	949	16,851

^a Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

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

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

(s) = Less than 500 barrels per day.

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products,
January-October 1990
(Thousand Barrels per Day)**

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c
Crude Oil	E 7,302	--	6,085	315	48	(s)	13,527	101	26
Natural Gas Liquids and LRGs	1,532	535	190	--	113	--	451	39	1,655
Pentanes Plus	306	--	8	--	-4	--	177	1	140
Liquefied Petroleum Gases	1,225	535	182	--	117	--	273	38	1,515
Ethane/Ethylene	460	15	5	--	-16	--	(s)	(s)	496
Propane/Propylene	469	405	115	--	69	--	7	26	887
Normal Butane/Butylene	141	102	47	--	54	--	112	12	114
Isobutane	155	13	15	--	10	--	154	0	18
Other Liquids	72	--	458	--	8	--	659	0	-140
Other Hydrocarbons/Alcohol	72	--	0	--	3	--	69	0	0
Unfinished Oils	--	--	390	--	-8	--	587	0	-189
Motor Gasoline Blend. Comp.	--	--	66	--	13	--	4	0	49
Aviation Gasoline Blend. Comp.	--	--	0	--	(s)	--	(s)	0	(s)
Finished Petroleum Products	--	14,769	1,476	--	146	--	--	661	15,438
Finished Motor Gasoline	--	6,960	344	--	17	--	--	55	7,233
Leaded	--	387	1	--	-23	--	--	6	406
Unleaded	--	6,573	343	--	40	--	--	49	6,827
Finished Aviation Gasoline	--	24	(s)	--	-1	--	--	0	26
Jet Fuel	--	1,439	106	--	34	--	--	32	1,479
Naphtha-Type	--	181	4	--	-1	--	--	5	182
Kerosene-Type	--	1,257	102	--	35	--	--	27	1,297
Kerosene	--	73	5	--	4	--	--	3	70
Distillate Fuel Oil	--	2,927	284	--	103	--	--	77	3,031
Residual Fuel Oil	--	948	517	--	19	--	--	203	1,244
Naphtha for Petro. Feed. Use	--	134	67	--	-2	--	--	5	198
Other Oils for Petro. Feed. Use	--	261	97	--	2	--	--	21	334
Special Naphthas	--	56	9	--	-1	--	--	11	55
Lubricants	--	166	10	--	-10	--	--	20	166
Waxes	--	17	1	--	(s)	--	--	2	17
Petroleum Coke	--	550	2	--	-4	--	--	227	329
Asphalt and Road Oil	--	469	32	--	-14	--	--	3	512
Still Gas	--	680	0	--	0	--	--	0	680
Miscellaneous Products	--	65	2	--	-1	--	--	2	66
Total	8,906	15,305	8,207	315	315	(s)	14,637	801	16,980

^a Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

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

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

(s) = Less than 500 barrels per day.

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 6. PAD District I—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products,
October 1990
(Thousand Barrels)**

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	E 874	--	37,088	-2,740	556	-1,159	0	36,937	(s)	0	14,832
Natural Gas Liquids and LRGs	868	745	1,450	--	3,549	481	--	115	54	5,962	6,068
Pentanes Plus	125	--	220	--	0	0	--	0	0	345	133
Liquefied Petroleum Gases	743	745	1,230	--	3,549	481	--	115	54	5,617	5,935
Ethane/Ethylene	244	5	0	--	0	-24	--	0	2	271	9
Propane/Propylene	327	995	895	--	3,549	589	--	0	19	5,158	4,330
Normal Butane/Butylene	127	-186	330	--	0	-73	--	87	33	224	1,514
Isobutane	45	-69	5	--	0	-11	--	28	0	-36	82
Other Liquids	137	--	5,426	--	320	-1,043	--	8,010	0	-1,084	18,822
Other Hydrocarbons/Alcohol	137	--	0	--	0	37	--	100	0	0	199
Unfinished Oils	--	--	4,919	--	221	-1,176	--	6,555	0	-239	13,278
Motor Gasoline Blend. Comp.	--	--	507	--	99	96	--	1,355	0	-845	5,145
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	--	46,191	23,636	--	75,419	-3,520	--	--	2,854	145,912	167,402
Finished Motor Gasoline	--	20,239	5,265	--	44,905	-5,433	--	--	555	75,287	53,874
Leaded	--	148	0	--	10	-21	--	--	1	178	115
Unleaded	--	20,091	5,265	--	44,895	-5,412	--	--	554	75,109	53,759
Finished Aviation Gasoline	--	21	3	--	82	-5	--	--	0	111	214
Jet Fuel	--	3,376	1,702	--	10,724	45	--	--	85	15,672	12,692
Naphtha-Type	--	379	554	--	553	4	--	--	0	1,482	714
Kerosene-Type	--	2,997	1,148	--	10,171	41	--	--	85	14,190	11,978
Kerosene	--	262	21	--	551	-155	--	--	2	987	2,692
Distillate Fuel Oil	--	10,786	5,367	--	17,622	2,432	--	--	1,575	29,768	65,399
Residual Fuel Oil	--	3,287	9,755	--	389	134	--	--	135	13,162	22,478
Petrochemical Feedstocks ^e	--	373	181	--	-124	-12	--	--	7	435	154
Special Naphthas	--	56	28	--	226	25	--	--	8	277	627
Lubricants	--	705	302	--	537	-34	--	--	271	1,307	2,628
Waxes	--	89	41	--	46	15	--	--	9	152	74
Petroleum Coke	--	1,246	0	--	0	113	--	--	192	941	704
Asphalt and Road Oil	--	3,566	931	--	332	-521	--	--	5	5,345	5,191
Still Gas	--	1,850	0	--	0	0	--	--	0	1,850	0
Miscellaneous Products	--	335	40	--	129	-124	--	--	11	617	675
Total	1,879	46,936	67,600	-2,740	79,844	-5,241	0	45,062	2,909	150,789	206,924

^a Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil is a balancing item.

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

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

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

(s) = Less than 500 barrels.

E = Estimated.

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

Sources: See Explanatory Notes.

Table 7. PAD District I—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1990
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 31	--	1,253	21	20	5	(s)	1,319	(s)	0
Natural Gas Liquids and LRGs	25	46	38	--	87	11	--	2	3	180
Pentanes Plus	4	--	3	--	0	(s)	--	(s)	(s)	7
Liquefied Petroleum Gases	21	46	34	--	87	11	--	2	3	173
Ethane/Ethylene	6	4	0	--	0	(s)	--	0	(s)	10
Propane/Propylene	10	37	31	--	85	8	--	0	1	152
Normal Butane/Butylene	4	6	3	--	1	2	--	1	2	9
Isobutane	1	(s)	(s)	--	1	(s)	--	1	0	1
Other Liquids	3	--	167	--	14	5	--	166	0	11
Other Hydrocarbons/Alcohol	3	--	0	--	0	(s)	--	2	0	0
Unfinished Oils	--	--	113	--	5	3	--	152	0	-37
Motor Gasoline Blend. Comp.	--	--	54	--	8	2	--	11	0	48
Aviation Gasoline Blend. Comp. ...	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	--	1,504	1,169	--	2,403	119	--	--	41	4,916
Finished Motor Gasoline	--	656	305	--	1,430	4	--	--	3	2,382
Leaded	--	8	0	--	4	-3	--	--	(s)	15
Unleaded	--	648	305	--	1,426	7	--	--	3	2,367
Finished Aviation Gasoline	--	(s)	(s)	--	3	(s)	--	--	0	4
Jet Fuel	--	96	77	--	347	8	--	--	2	510
Naphtha-Type	--	14	3	--	16	-2	--	--	(s)	34
Kerosene-Type	--	82	74	--	331	10	--	--	2	476
Kerosene	--	7	3	--	11	1	--	--	(s)	20
Distillate Fuel Oil	--	357	270	--	552	100	--	--	7	1,072
Residual Fuel Oil	--	136	464	--	27	12	--	--	11	604
Petrochemical Feedstocks ^e	--	12	8	--	-4	-1	--	--	1	17
Special Naphthas	--	4	1	--	8	(s)	--	--	(s)	13
Lubricants	--	22	8	--	14	-1	--	--	6	40
Waxes	--	3	1	--	(s)	(s)	--	--	(s)	3
Petroleum Coke	--	42	0	--	0	-1	--	--	9	34
Asphalt and Road Oil	--	96	30	--	12	-3	--	--	1	140
Still Gas	--	63	0	--	0	0	--	--	0	63
Miscellaneous Products	--	10	2	--	2	-1	--	--	(s)	14
Total	59	1,550	2,625	21	2,523	140	(s)	1,487	44	5,107

^a Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil is a balancing item.

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

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

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

(s) = Less than 500 barrels per day.

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 8. PAD District II—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products,
October 1990
(Thousand Barrels)**

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	E 23,641	--	14,909	868	47,909	-2,945	0	90,093	179	0	89,366
Natural Gas Liquids and LRGs	9,470	2,518	2,633	--	2,526	-2,180	--	4,652	412	14,243	37,749
Pentanes Plus	1,473	--	40	--	624	-17	--	1,260	0	894	2,227
Liquefied Petroleum Gases	7,997	2,518	2,593	--	1,902	-2,143	--	3,392	412	13,349	35,522
Ethane/Ethylene	2,739	13	321	--	-1,065	385	--	0	0	1,623	5,765
Propane/Propylene	3,430	2,962	1,585	--	1,193	-1,623	--	0	328	10,465	18,558
Normal Butane/Butylene	1,318	-506	682	--	883	-388	--	1,994	84	697	8,591
Isobutane	510	49	5	--	881	-517	--	1,398	0	564	2,608
Other Liquids	127	--	0	--	328	-2,225	--	4,385	0	-1,705	24,381
Other Hydrocarbons/Alcohol	127	--	0	--	0	-16	--	143	0	0	247
Unfinished Oils	--	--	0	--	254	-923	--	1,722	0	-545	15,906
Motor Gasoline Blend. Comp.	--	--	0	--	74	-1,348	--	2,582	0	-1,160	8,103
Aviation Gasoline Blend. Comp.	--	--	0	--	0	62	--	-62	0	0	125
Finished Petroleum Products	--	100,572	747	--	17,939	-5,754	--	--	534	124,478	104,070
Finished Motor Gasoline	--	54,122	200	--	10,301	-1,697	--	--	12	66,308	50,112
Leaded	--	960	0	--	44	-730	--	--	0	1,734	2,595
Unleaded	--	53,162	200	--	10,257	-967	--	--	12	64,574	47,517
Finished Aviation Gasoline	--	41	0	--	159	27	--	--	0	173	568
Jet Fuel	--	6,507	52	--	1,881	-896	--	--	190	9,146	9,534
Naphtha-Type	--	371	52	--	35	-53	--	--	6	505	929
Kerosene-Type	--	6,136	0	--	1,846	-843	--	--	184	8,641	8,605
Kerosene	--	449	0	--	29	7	--	--	3	468	1,730
Distillate Fuel Oil	--	21,264	243	--	5,585	-1,265	--	--	82	28,275	28,765
Residual Fuel Oil	--	2,159	52	--	-627	-361	--	--	(s)	1,945	3,695
Petrochemical Feedstocks ^e	--	1,736	0	--	104	269	--	--	1	1,570	601
Special Naphthas	--	493	113	--	10	-106	--	--	8	714	430
Lubricants	--	700	34	--	180	-76	--	--	48	942	1,485
Waxes	--	39	1	--	43	-8	--	--	5	86	129
Petroleum Coke	--	3,363	0	--	0	-88	--	--	58	3,393	1,494
Asphalt and Road Oil	--	5,287	41	--	283	-1,712	--	--	127	7,196	5,142
Still Gas	--	3,930	0	--	0	0	--	--	0	3,930	0
Miscellaneous Products	--	482	11	--	-9	152	--	--	(s)	332	385
Total	33,238	103,090	18,289	868	68,702	-13,084	0	99,130	1,128	137,015	235,568

^a Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil is a balancing item.

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

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

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

(s) = Less than 500 barrels.

E = Estimated.

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

Sources: See Explanatory Notes.

Table 9. PAD District II—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1990
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 741	--	479	-15	1,844	-3	0	3,040	12	0
Natural Gas Liquids and LRGs	280	107	72	--	59	48	--	117	10	343
Pentanes Plus	46	--	1	--	18	-3	--	43	0	24
Liquefied Petroleum Gases	234	107	71	--	41	51	--	73	10	319
Ethane/Ethylene	70	1	2	--	-23	5	--	(s)	(s)	45
Propane/Propylene	106	101	52	--	41	30	--	2	6	262
Normal Butane/Butylene	37	5	15	--	2	15	--	27	4	12
Isobutane	21	1	2	--	21	1	--	44	0	(s)
Other Liquids	4	--	(s)	--	2	-2	--	58	0	-48
Other Hydrocarbons/Alcohol	4	--	0	--	0	(s)	--	4	0	0
Unfinished Oils	--	--	0	--	1	-3	--	26	0	-22
Motor Gasoline Blend. Comp.	--	--	(s)	--	1	1	--	26	0	-26
Aviation Gasoline Blend. Comp. ...	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	--	3,243	20	--	881	-14	--	--	17	3,942
Finished Motor Gasoline	--	1,736	5	--	423	1	--	--	2	2,162
Loaded	--	69	0	--	4	-10	--	--	(s)	84
Unloaded	--	1,667	5	--	419	11	--	--	2	2,078
Finished Aviation Gasoline	--	3	0	--	3	(s)	--	--	0	6
Jet Fuel	--	195	2	--	90	4	--	--	1	283
Naphtha-Type	--	14	2	--	3	(s)	--	--	(s)	19
Kerosene-Type	--	181	(s)	--	87	4	--	--	1	263
Kerosene	--	14	0	--	(s)	(s)	--	--	(s)	13
Distillate Fuel Oil	--	709	6	--	158	-7	--	--	2	878
Residual Fuel Oil	--	71	2	--	-15	1	--	--	1	56
Petrochemical Feedstocks ^e	--	40	1	--	3	1	--	--	(s)	43
Special Naphthas	--	16	2	--	4	-1	--	--	(s)	21
Lubricants	--	25	1	--	9	-2	--	--	1	35
Waxes	--	2	(s)	--	(s)	(s)	--	--	(s)	2
Petroleum Coke	--	119	0	--	0	-6	--	--	9	116
Asphalt and Road Oil	--	157	1	--	7	-6	--	--	1	169
Still Gas	--	142	0	--	0	0	--	--	0	142
Miscellaneous Products	--	14	(s)	--	(s)	(s)	--	--	(s)	14
Total	1,025	3,350	572	-15	2,586	29	0	3,212	40	4,238

^a Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil is a balancing item.

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

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

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

(s) = Less than 500 barrels per day.

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 10. PAD District III—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products,
October 1990
(Thousand Barrels)**

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	E 103,022	--	98,148	13,661	-35,876	-4,105	0	181,060	0	0	759,230
Natural Gas Liquids and LRGs	34,068	8,569	697	--	-3,890	-6,336	--	8,602	395	36,781	73,939
Pentanes Plus	6,039	--	0	--	-303	-545	--	3,218	30	3,033	4,559
Liquefied Petroleum Gases	28,027	8,569	697	--	-3,587	-5,791	--	5,384	365	33,748	69,380
Ethane/Ethylene	12,426	445	0	--	1,895	-2,310	--	0	0	17,076	12,491
Propane/Propylene	9,665	7,663	174	--	-4,289	-1,114	--	97	259	13,971	29,459
Normal Butane/Butylene	2,133	128	473	--	-533	-2,806	--	2,592	106	2,309	19,392
Isobutane	3,803	333	50	--	-660	439	--	2,695	0	392	8,038
Other Liquids	1,693	--	8,266	--	-648	-5,638	--	15,267	0	-318	66,726
Other Hydrocarbons/Alcohol	1,693	--	0	--	0	45	--	1,648	0	0	570
Unfinished Oils	--	--	8,024	--	-475	-6,059	--	14,038	0	-430	48,312
Motor Gasoline Blend. Comp.	--	--	242	--	-173	415	--	-458	0	112	17,799
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-39	--	39	0	0	45
Finished Petroleum Products	--	207,385	3,391	--	-95,979	2,773	--	--	12,811	99,213	132,377
Finished Motor Gasoline	--	94,538	1	--	-56,569	133	--	--	1,615	36,222	48,884
Leaded	--	1,862	1	--	-113	-45	--	--	142	1,653	691
Unleaded	--	92,676	0	--	-56,456	178	--	--	1,473	34,569	47,993
Finished Aviation Gasoline	--	412	0	--	-253	-37	--	--	0	196	491
Jet Fuel	--	24,790	0	--	-13,520	1,897	--	--	1,235	8,138	18,393
Naphtha-Type	--	2,694	0	--	-717	-100	--	--	1	2,076	2,263
Kerosene-Type	--	22,096	0	--	-12,803	1,997	--	--	1,235	6,061	16,130
Kerosene	--	1,611	0	--	-580	192	--	--	634	205	1,935
Distillate Fuel Oil	--	41,285	0	--	-23,514	129	--	--	2,682	14,960	29,545
Residual Fuel Oil	--	9,954	1,024	--	238	607	--	--	1,208	9,401	15,235
Petrochemical Feedstocks ^e	--	8,503	2,286	--	20	468	--	--	371	9,970	3,188
Special Naphthas	--	1,118	69	--	-236	-21	--	--	626	346	1,373
Lubricants	--	3,031	0	--	-741	-619	--	--	326	2,583	4,906
Waxes	--	309	0	--	-89	-25	--	--	36	209	431
Petroleum Coke	--	7,897	0	--	0	47	--	--	4,056	3,794	3,190
Asphalt and Road Oil	--	3,692	11	--	-615	-43	--	--	3	3,128	3,458
Still Gas	--	8,960	0	--	0	0	--	--	0	8,960	0
Miscellaneous Products	--	1,285	0	--	-120	45	--	--	19	1,101	1,348
Total	138,781	215,954	108,502	13,661	-136,393	-13,306	0	204,929	13,207	135,675	1,032,272

^a Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil is a balancing item.

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

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

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

(s) = Less than 500 barrels.

E = Estimated.

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

Sources: See Explanatory Notes.

Table 11. PAD District III—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1990
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 3,292	--	4,033	282	-1,455	58	(s)	6,094	0	0
Natural Gas Liquids and LRGs	1,036	313	68	--	-87	50	--	253	17	1,010
Pentanes Plus	191	--	1	--	-9	-2	--	101	1	82
Liquefied Petroleum Gases	845	313	67	--	-79	51	--	151	15	928
Ethane/Ethylene	357	9	3	--	42	-21	--	(s)	0	432
Propane/Propylene	302	225	27	--	-111	29	--	5	10	399
Normal Butane/Butylene	66	68	26	--	7	34	--	52	5	78
Isobutane	120	11	11	--	-17	9	--	94	0	22
Other Liquids	49	--	284	--	-18	-3	--	393	0	-75
Other Hydrocarbons/Alcohol	49	--	0	--	0	1	--	48	0	0
Unfinished Oils	--	--	274	--	-9	-15	--	382	0	-101
Motor Gasoline Blend. Comp.	--	--	10	--	-9	12	--	-37	0	26
Aviation Gasoline Blend. Comp. ...	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	--	6,740	228	--	-3,165	45	--	--	324	3,433
Finished Motor Gasoline	--	3,131	17	--	-1,898	10	--	--	44	1,196
Leaded	--	71	(s)	--	-12	-6	--	--	6	60
Unleaded	--	3,059	17	--	-1,885	18	--	--	39	1,136
Finished Aviation Gasoline	--	14	0	--	-7	-1	--	--	0	8
Jet Fuel	--	705	19	--	-466	19	--	--	17	222
Naphtha-Type	--	99	0	--	-24	1	--	--	1	72
Kerosene-Type	--	607	19	--	-442	18	--	--	16	150
Kerosene	--	48	1	--	-11	3	--	--	2	34
Distillate Fuel Oil	--	1,301	1	--	-716	15	--	--	53	518
Residual Fuel Oil	--	361	28	--	-13	5	--	--	49	322
Petrochemical Feedstocks ^e	--	330	153	--	1	1	--	--	17	466
Special Naphthas	--	33	6	--	-12	(s)	--	--	6	22
Lubricants	--	100	(s)	--	-23	-6	--	--	9	75
Waxes	--	10	(s)	--	-1	(s)	--	--	1	8
Petroleum Coke	--	242	1	--	0	2	--	--	124	118
Asphalt and Road Oil	--	118	1	--	-19	-2	--	--	(s)	102
Still Gas	--	311	0	--	0	0	--	--	0	311
Miscellaneous Products	--	35	(s)	--	-2	(s)	--	--	1	33
Total	4,377	7,053	4,613	282	-4,726	149	(s)	6,740	341	4,369

^a Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil is a balancing item.

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

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

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

(s) = Less than 500 barrels per day.

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 12. PAD District IV—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products,
October 1990
(Thousand Barrels)**

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	E 15,023	--	2,492	48	-3,197	808	0	13,558	0	0	11,557
Natural Gas Liquids and LRGs	4,097	192	257	--	-2,185	-4	--	630	4	1,731	1,329
Pentanes Plus	836	--	47	--	-321	-1	--	93	0	470	142
Liquefied Petroleum Gases	3,261	192	210	--	-1,864	-3	--	537	4	1,261	1,187
Ethane/Ethylene	1,176	0	0	--	-830	24	--	0	0	322	170
Propane/Propylene	1,312	207	73	--	-453	7	--	0	2	1,130	474
Normal Butane/Butylene	544	10	125	--	-360	-39	--	442	2	-86	392
Isobutane	229	-25	12	--	-221	5	--	95	0	-105	151
Other Liquids	88	--	0	--	0	83	--	48	0	-43	4,288
Other Hydrocarbons/Alcohol	88	--	0	--	0	9	--	79	0	0	191
Unfinished Oils	--	--	0	--	0	-107	--	88	0	19	2,029
Motor Gasoline Blend. Comp.	--	--	0	--	0	181	--	-119	0	-62	2,068
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	--	14,352	84	--	-242	-30	--	--	17	14,207	9,558
Finished Motor Gasoline	--	6,855	38	--	-322	108	--	--	0	6,461	4,481
Leaded	--	1,513	6	--	-342	-198	--	--	0	1,375	1,335
Unleaded	--	5,342	30	--	20	306	--	--	0	5,088	3,146
Finished Aviation Gasoline	--	17	0	--	12	-8	--	--	0	37	41
Jet Fuel	--	1,113	0	--	282	-48	--	--	(s)	1,443	1,093
Naphtha-Type	--	303	0	--	-175	-18	--	--	(s)	146	381
Kerosene-Type	--	810	0	--	457	-30	--	--	0	1,297	712
Kerosene	--	-5	0	--	0	-12	--	--	0	7	33
Distillate Fuel Oil	--	3,999	48	--	-214	42	--	--	0	3,791	2,501
Residual Fuel Oil	--	388	0	--	0	1	--	--	0	387	475
Petrochemical Feedstocks ^e	--	11	0	--	0	0	--	--	0	11	2
Special Naphthas	--	0	0	--	0	0	--	--	0	0	6
Lubricants	--	0	0	--	0	0	--	--	5	-5	39
Waxes	--	43	0	--	0	2	--	--	0	41	187
Petroleum Coke	--	287	0	--	0	-45	--	--	8	324	8
Asphalt and Road Oil	--	1,008	0	--	0	-76	--	--	4	1,080	667
Still Gas	--	575	0	--	0	0	--	--	0	575	0
Miscellaneous Products	--	61	0	--	0	6	--	--	(s)	55	25
Total	19,208	14,544	2,833	48	-5,624	857	0	14,236	21	15,695	26,732

^a Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil is a balancing item.

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

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

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

(s) = Less than 500 barrels.

E = Estimated.

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

Sources: See Explanatory Notes.

Table 13. PAD District IV—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1990
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 496	--	74	25	-132	-3	0	466	(s)	0
Natural Gas Liquids and LRGs	118	8	9	--	-59	(s)	--	18	(s)	57
Pentanes Plus	25	--	3	--	-9	(s)	--	5	0	14
Liquefied Petroleum Gases	93	8	6	--	-50	1	--	13	(s)	43
Ethane/Ethylene	26	(s)	0	--	-19	(s)	--	0	0	7
Propane/Propylene	42	7	3	--	-15	(s)	--	(s)	(s)	36
Normal Butane/Butylene	17	2	2	--	-10	(s)	--	10	(s)	1
Isobutane	8	(s)	(s)	--	-6	(s)	--	3	0	-1
Other Liquids	1	--	(s)	--	0	-2	--	2	0	1
Other Hydrocarbons/Alcohol	1	--	0	--	0	(s)	--	1	0	0
Unfinished Oils	--	--	(s)	--	0	-2	--	-1	0	3
Motor Gasoline Blend, Comp.	--	--	0	--	0	-1	--	2	0	-2
Aviation Gasoline Blend, Comp. ...	--	--	0	--	0	0	--	(s)	0	(s)
Finished Petroleum Products	--	488	4	--	-20	-9	--	--	1	480
Finished Motor Gasoline	--	240	1	--	-16	-2	--	--	(s)	228
Leaded	--	60	(s)	--	-12	-2	--	--	(s)	50
Unleaded	--	180	1	--	-4	(s)	--	--	(s)	178
Finished Aviation Gasoline	--	1	0	--	(s)	0	--	--	0	1
Jet Fuel	--	39	0	--	10	(s)	--	--	(s)	49
Naphtha-Type	--	13	0	--	-6	(s)	--	--	(s)	8
Kerosene-Type	--	26	0	--	16	(s)	--	--	(s)	42
Kerosene	--	(s)	0	--	0	(s)	--	--	0	(s)
Distillate Fuel Oil	--	127	2	--	-15	-2	--	--	(s)	117
Residual Fuel Oil	--	11	(s)	--	0	(s)	--	--	0	11
Petrochemical Feedstocks ^e	--	(s)	0	--	0	(s)	--	--	0	(s)
Special Naphthas	--	(s)	0	--	0	(s)	--	--	(s)	(s)
Lubricants	--	(s)	0	--	0	(s)	--	--	(s)	(s)
Waxes	--	2	0	--	0	(s)	--	--	(s)	1
Petroleum Coke	--	11	0	--	0	(s)	--	--	(s)	10
Asphalt and Road Oil	--	35	0	--	0	-4	--	--	(s)	38
Still Gas	--	21	0	--	0	0	--	--	0	21
Miscellaneous Products	--	2	0	--	0	(s)	--	--	(s)	2
Total	615	496	86	25	-211	-13	0	486	1	538

^a Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil is a balancing item.

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

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

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

(s) = Less than 500 barrels per day.

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 14. PAD District V—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products,
October 1990
(Thousand Barrels)**

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	E 88,515	--	8,443	2,426	-9,392	10,539	0	75,934	3,054	459	80,808
Natural Gas Liquids and LRGs	2,788	1,968	89	--	0	189	--	2,513	337	1,808	5,129
Pentanes Plus	1,511	--	0	--	0	-24	--	1,044	2	489	105
Liquefied Petroleum Gases	1,277	1,968	89	--	0	213	--	1,469	335	1,317	5,024
Ethane/Ethylene	1	41	0	--	0	0	--	0	(s)	42	0
Propane/Propylene	340	1,182	17	--	0	34	--	0	332	1,173	1,277
Normal Butane/Butylene	687	741	61	--	0	216	--	923	3	347	3,380
Isobutane	249	4	11	--	0	-37	--	546	0	-245	367
Other Liquids	534	--	0	--	0	-1,099	--	4,376	0	-2,743	31,875
Other Hydrocarbons/Alcohol	534	--	0	--	0	59	--	475	0	0	238
Unfinished Oils	--	--	0	--	0	-1,038	--	3,487	0	-2,451	24,250
Motor Gasoline Blend. Comp.	--	--	0	--	0	-116	--	408	0	-292	7,387
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-8	--	6	0	0	0
Finished Petroleum Products	--	85,994	1,974	--	2,863	-1,413	--	--	8,755	83,489	59,394
Finished Motor Gasoline	--	37,826	447	--	1,685	372	--	--	622	38,964	24,829
Leaded	--	5,615	0	--	401	191	--	--	6	5,819	5,664
Unleaded	--	32,211	447	--	1,284	181	--	--	617	33,144	19,165
Finished Aviation Gasoline	--	97	2	--	0	-75	--	--	0	174	392
Jet Fuel	--	13,728	252	--	633	354	--	--	892	13,367	9,611
Naphtha-Type	--	1,449	0	--	304	262	--	--	150	1,341	1,896
Kerosene-Type	--	12,279	252	--	329	92	--	--	742	12,026	7,715
Kerosene	--	95	0	--	0	25	--	--	157	-87	105
Distillate Fuel Oil	--	13,588	228	--	521	-1,023	--	--	307	15,051	10,602
Residual Fuel Oil	--	9,088	972	--	0	-375	--	--	3,604	6,831	7,657
Petrochemical Feedstocks ^e	--	458	29	--	0	8	--	--	362	117	251
Special Naphthas	--	71	9	--	0	-8	--	--	358	-270	129
Lubricants	--	552	0	--	24	-126	--	--	152	550	1,617
Waxes	--	66	4	--	0	-12	--	--	22	60	125
Petroleum Coke	--	4,142	22	--	0	-131	--	--	2,255	2,040	1,752
Asphalt and Road Oil	--	1,963	11	--	0	-435	--	--	14	2,395	1,933
Still Gas	--	4,203	0	--	0	0	--	--	0	4,203	0
Miscellaneous Products	--	117	0	--	0	13	--	--	9	95	201
Total	91,837	87,962	10,506	2,426	-6,529	8,216	6	82,823	12,146	83,011	177,206

^a Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil is a balancing item.

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

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

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

(s) = Less than 500 barrels.

E = Estimated.

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

Sources: See Explanatory Notes.

Table 15. PAD District V -- Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1990
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 2,743	--	247	1	-278	-8	(s)	2,609	88	26
Natural Gas Liquids and LRGs	73	61	4	--	0	4	--	61	9	65
Pentanes Plus	41	--	0	--	0	(s)	--	27	(s)	13
Liquefied Petroleum Gases	33	61	4	--	0	4	--	33	9	52
Ethane/Ethylene	(s)	1	0	--	0	0	--	0	(s)	1
Propane/Propylene	10	36	2	--	0	2	--	(s)	9	38
Normal Butane/Butylene	17	22	1	--	0	2	--	22	(s)	16
Isobutane	5	1	1	--	0	(s)	--	11	0	-4
Other Liquids	14	--	5	--	2	9	--	43	0	-30
Other Hydrocarbons/Alcohol	14	--	0	--	0	1	--	14	0	0
Unfinished Oils	--	--	3	--	2	10	--	28	0	-32
Motor Gasoline Blend, Comp.	--	--	2	--	0	-1	--	1	0	2
Aviation Gasoline Blend, Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	--	2,795	55	--	101	5	--	--	278	2,668
Finished Motor Gasoline	--	1,198	16	--	61	4	--	--	5	1,285
Leaded	--	179	1	--	16	-1	--	--	(s)	197
Unleaded	--	1,019	15	--	44	5	--	--	5	1,067
Finished Aviation Gasoline	--	6	(s)	--	(s)	-1	--	--	0	6
Jet Fuel	--	402	9	--	19	3	--	--	12	415
Naphtha-Type	--	41	(s)	--	11	(s)	--	--	4	49
Kerosene-Type	--	361	9	--	8	3	--	--	8	367
Kerosene	--	3	0	--	0	(s)	--	--	1	3
Distillate Fuel Oil	--	433	5	--	21	-3	--	--	16	445
Residual Fuel Oil	--	370	23	--	(s)	2	--	--	142	250
Petrochemical Feedstocks ^e	--	12	1	--	0	(s)	--	--	8	5
Special Naphthas	--	3	(s)	--	0	(s)	--	--	4	-1
Lubricants	--	20	(s)	--	-1	(s)	--	--	3	16
Waxes	--	2	(s)	--	0	-1	--	--	1	2
Petroleum Coke	--	136	1	--	0	(s)	--	--	86	51
Asphalt and Road Oil	--	64	(s)	--	0	(s)	--	--	(s)	63
Still Gas	--	144	0	--	0	0	--	--	0	144
Miscellaneous Products	--	4	0	--	0	(s)	--	--	1	4
Total	2,831	2,856	311	1	-173	10	(s)	2,713	375	2,728

^a Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil is a balancing item.

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

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

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

(s) = Less than 500 barrels per day.

E = Estimated.

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

Sources: See Explanatory Notes.

Table 16. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	August 1990		January-August 1990	
	Total	Daily Average	Total	Daily Average
PAD District I	E 887	E 29	E 7,838	E 31
Florida	401	13	4,048	17
New York	E 36	E 1	E 283	E 1
Pennsylvania	E 242	E 8	E 1,790	E 7
Virginia	E 2	E (8)	E 12	E (8)
West Virginia	188	6	1,427	6
Adjustment ^a	18	1	80	(8)
PAD District II	E 23,151	E 747	E 179,596	E 739
Illinois	1,760	57	13,288	55
Indiana	297	10	1,978	8
Kansas	4,861	157	36,260	149
Kentucky	466	15	3,525	15
Michigan	E 1,655	E 53	E 13,213	E 54
Missouri	11	(8)	87	(8)
Nebraska	513	17	3,941	16
North Dakota	3,103	100	24,397	100
Ohio	E 869	E 28	E 6,478	E 27
Oklahoma	9,771	315	73,265	302
South Dakota	141	5	1,090	4
Tennessee	46	1	353	1
Adjustment ^a	-342	-11	1,721	7
PAD District III	E 100,580	E 3,245	E 800,061	E 3,292
Alabama	1,526	49	12,395	51
Arkansas	E 849	E 27	E 7,000	E 29
Louisiana ^b	E 12,175	E 393	E 97,187	E 400
Mississippi	2,341	76	17,930	74
New Mexico	5,657	182	44,552	183
Texas ^b	56,894	1,835	446,515	1,838
Federal Offshore PAD District III	21,933	708	E 168,900	E 695
Adjustment ^a	-795	-26	5,585	23
PAD District IV	15,094	487	E 121,226	E 499
Colorado	2,428	78	19,712	81
Montana	1,684	54	E 13,073	E 54
Utah	2,282	74	18,513	76
Wyoming	8,639	279	68,891	284
Adjustment ^a	61	2	1,039	4
PAD District V	83,968	2,709	665,282	2,738
Alaska ^b	53,822	1,736	428,828	1,765
South Alaska	1,355	44	6,425	26
North Slope	52,469	1,693	422,402	1,738
Adjustment for Alaska ^a	-2	(8)	0	0
Arizona	11	(8)	86	(8)
California ^b	26,949	869	213,201	877
Nevada	354	11	2,605	11
Federal Offshore PAD District V	2,468	80	20,204	83
Adjustment excluding Alaska ^a	362	12	355	1
U.S. Total^b	E 223,678	E 7,215	E 1,773,803	E 7,300

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

^b Includes the following current month offshore production (thousand barrels): Alaska: State - 3,548; California: State - 1,927; Louisiana: State - 1,827; Texas: State - 133; U.S. Total, including Federal offshore - E31,836.

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

E = Estimated.

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

Sources: See Explanatory Notes.

Table 17. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, October 1990
(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	204	664	868	610	429	8,431	9,470
Pentanes Plus	44	81	125	121	107	1,245	1,473
Liquefied Petroleum Gases	160	583	743	489	322	7,186	7,997
Ethane	49	195	244	76	0	2,663	2,739
Propane	63	264	327	246	196	2,988	3,430
Normal Butane	38	89	127	89	121	1,108	1,318
Isobutane	10	35	45	78	5	427	510
Stocks							
Natural Gas Liquids	251	23	274	115	63	2,018	2,196
Pentanes Plus	56	2	58	20	21	215	256
Liquefied Petroleum Gases	195	21	216	95	42	1,803	1,940
Ethane	0	0	0	9	0	576	585
Propane	140	18	158	43	26	720	789
Normal Butane	53	2	55	22	16	351	389
Isobutane	2	1	3	21	0	156	177

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Net Production									
Natural Gas Liquids	18,369	2,994	7,843	659	4,201	34,066	4,097	2,788	51,289
Pentanes Plus	3,285	627	1,391	203	533	6,039	836	1,511	9,984
Liquefied Petroleum Gases	15,084	2,367	6,452	456	3,668	28,027	3,261	1,277	41,305
Ethane	6,392	1,265	2,872	102	1,795	12,426	1,176	1	16,586
Propane	5,468	673	2,140	185	1,199	9,465	1,312	340	15,074
Normal Butane	2,347	-1,421	659	120	428	2,133	544	687	4,809
Isobutane	877	1,850	781	49	246	3,803	229	249	4,836
Stocks									
Natural Gas Liquids	1,024	3,934	1,708	150	62	6,878	203	162	9,713
Pentanes Plus	413	508	319	30	4	1,274	70	16	1,674
Liquefied Petroleum Gases	611	3,426	1,389	120	58	5,604	133	146	8,039
Ethane	98	833	54	41	13	1,039	9	0	1,633
Propane	239	877	389	42	40	1,587	76	136	2,746
Normal Butane	233	1,166	617	31	1	2,038	39	6	2,527
Isobutane	41	560	329	6	4	940	9	4	1,133

Sources: See Explanatory Notes.

**Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts,
October 1990**
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			Total
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okl., Kans., Mo.	
Crude Oil	33,918	3,019	36,937	61,517	10,115	18,481	90,093
Natural Gas Liquids	111	4	115	2,600	485	1,567	4,652
Pentanes Plus	0	0	0	479	111	870	1,260
Liquefied Petroleum Gases	111	4	115	2,121	374	897	3,392
Ethane	0	0	0	0	0	0	0
Propane	0	0	0	0	0	0	0
Normal Butane	83	4	87	1,185	288	521	1,994
Isobutane	28	0	28	936	66	376	1,398
Other Liquids	7,644	368	8,010	2,911	1	1,473	4,385
Other Hydrocarbons/Alcohol	100	0	100	84	5	54	143
Unfinished Oils (net)	6,217	338	6,555	1,233	31	458	1,722
Motor Gasoline Blend. Comp. (net)	1,327	28	1,355	1,642	-35	975	2,582
Aviation Gasoline Blend. Comp. (net)	0	0	0	-48	0	-14	-62
Total Input to Refineries	41,673	3,389	45,062	67,028	10,801	21,501	99,130
Atmospheric Crude Oil Distillation							
Gross Input (daily average)	1,073	98	1,171	1,988	329	599	2,916
Operable Capacity (daily average)	1,381	124	1,505	2,254	343	741	3,338
Operable Utilization Rate (percent) ^{a,b}	77.7	79.0	77.8	88.2	96.0	80.9	87.4
Downstream Processing							
Fresh Feed Input (daily average)							
Catalytic Cracking	430	17	447	723	116	211	1,050
Catalytic Hydrocracking	52	3	55	125	0	4	129
Delayed and Fluid Coking	61	0	61	120	56	49	225
Crude Oil Qualities							
Sulfur Content, Weighted Average (percent)	1.32	0.77	1.27	1.03	1.71	0.68	1.03
API Gravity, Weighted Average (degrees)	30.30	36.76	30.83	34.12	32.80	36.49	34.44
Operable Capacity (daily average)	1,381	124	1,505	2,254	343	741	3,338
Operating	1,378	124	1,502	2,166	343	741	3,249
Idle	3	0	3	88	0	0	88
Alaskan Crude Oil Receipts	0	0	0	106	0	405	511

See footnotes at end of table.

**Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts,
October 1990 (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	15,812	85,312	72,915	5,518	1,505	181,067	13,558	75,934	397,582
Natural Gas Liquids	1,431	4,091	2,617	326	137	8,602	630	2,513	16,512
Pentanes Plus	779	1,828	310	197	104	3,218	93	1,044	5,615
Liquefied Petroleum Gases	652	2,263	2,307	129	33	5,384	537	1,469	10,897
Ethane	0	0	0	0	0	0	0	0	0
Propane	0	97	0	0	0	97	0	0	97
Normal Butane	325	1,021	1,216	29	1	2,592	442	923	6,038
Isobutane	327	1,145	1,091	100	32	2,695	95	546	4,762
Other Liquids	454	11,510	2,978	186	141	15,267	48	4,376	32,086
Other Hydrocarbons/Alcohol	279	1,003	347	2	17	1,648	79	475	2,445
Unfinished Oils (net)	349	11,922	1,598	105	64	14,038	88	3,487	25,890
Motor Gasoline Blend. Comp. (net)	-174	-1,408	985	79	60	-458	-119	408	3,768
Aviation Gasoline Blend. Comp. (net)	0	-7	46	0	0	39	0	6	-17
Total Input to Refineries	17,697	100,913	78,508	6,028	1,783	204,929	14,236	82,823	446,180
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	513	2,797	2,400	176	49	5,935	439	2,615	13,076
Operable Capacity (daily average)	587	3,332	2,922	247	78	7,165	555	3,103	15,666
Operable Utilization Rate (percent) ^{a,b}	87.4	83.9	82.2	71.1	62.4	82.8	79.2	84.3	83.5
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	176	1,262	731	31	17	2,217	148	736	4,598
Catalytic Hydrocracking	24	166	216	0	0	407	6	375	972
Delayed and Fluid Coking	9	187	368	9	0	573	17	422	1,297
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.68	1.02	1.42	1.40	0.56	1.16	0.92	1.13	1.13
API Gravity, Weighted Average (degrees)	39.06	33.09	30.30	33.70	40.40	32.55	34.95	25.89	31.62
Operable Capacity (daily average)	587	3,332	2,922	247	78	7,165	555	3,103	15,666
Operating	556	3,280	2,583	230	78	6,727	540	3,050	15,069
Idle	30	52	339	17	0	438	15	53	597
Alaskan Crude Oil Receipts	0	2,794	920	0	0	3,714	0	45,159	49,384

^a Represents gross input divided by operable capacity.

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

(s) = Less than 500 barrels.

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

Sources: See Explanatory Notes.

**Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts,
October 1990
(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	762	-17	745	2,245	198	75	2,518
Ethane/Ethylene	5	0	5	13	0	0	13
Ethane	W	W	W	W	W	W	W
Ethylene	W	W	W	W	W	W	W
Propane/Propylene	960	35	995	2,211	229	522	2,962
Propane	W	W	W	W	W	W	W
Propylene	W	W	W	W	W	W	W
Normal Butane/Butylene	-138	-49	-186	-57	-2	-447	-508
Normal Butane	W	W	W	W	W	W	W
Butylene	W	W	W	W	W	W	W
Isobutylene	-65	-4	-69	78	-29	0	49
Finished Motor Gasoline	18,964	1,275	20,239	36,624	5,899	11,799	54,122
Leaded	115	33	148	155	232	573	960
Unleaded	18,849	1,242	20,091	36,469	5,467	11,226	53,162
Finished Aviation Gasoline	21	0	21	12	19	10	41
Jet Fuel	3,306	70	3,376	4,340	692	1,473	6,507
Naphtha-Type	309	70	379	163	18	190	371
Kerosene-Type	2,997	0	2,997	4,177	674	1,285	6,136
Kerosene	197	65	262	341	87	21	449
Distillate Fuel Oil	9,709	1,077	10,786	13,124	2,736	5,404	21,264
Residual Fuel Oil	3,222	65	3,287	1,757	239	163	2,159
Less than 0.31 percent sulfur	859	15	874	54	0	0	54
0.31 to 1.00 percent sulfur	1,593	0	1,593	333	0	77	410
Greater than 1.00 percent sulfur	770	50	820	1,370	239	86	1,695
Naphtha for Petrochemical Feedstock Use	360	0	360	551	0	9	560
Other Oils for Petrochemical Feedstock Use	13	0	13	1,086	0	90	1,178
Special Naphthas	36	20	56	242	0	251	493
Lubricants	430	275	705	490	0	210	700
Naphthenic	225	0	225	-2	0	0	-2
Paraffinic	205	275	480	492	0	210	702
Waxes	0	89	89	19	0	20	39
Petroleum Coke	1,220	26	1,246	2,056	608	699	3,363
Marketable	381	0	381	1,041	439	415	1,895
Catalyst	819	26	865	1,015	169	284	1,468
Asphalt and Road Oil	3,299	267	3,566	3,885	429	973	5,287
Still Gas	1,705	145	1,850	2,801	393	736	3,930
Miscellaneous Products	278	57	335	390	48	44	482
Fuel Use	7	0	7	0	0	0	0
Nonfuel Use	271	57	328	390	48	44	482
Total	43,522	3,414	46,936	60,963	11,148	21,979	103,090
Processing Gain(-) or Loss(+) ^a	-1,849	-25	-1,874	-2,935	-547	-478	-3,980

See footnotes at end of table.

**Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts,
October 1990 (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	439	5,580	2,399	105	46	8,569	192	1,968	13,992
Ethane/Ethylene	-27	365	107	0	0	445	0	41	504
Ethane	W	W	W	W	W	W	W	W	445
Ethylene	W	W	W	W	W	W	W	W	59
Propane/Propylene	563	4,508	2,472	86	34	7,663	207	1,182	13,009
Propane	W	W	W	W	W	W	W	W	9,843
Propylene	W	W	W	W	W	W	W	W	3,166
Normal Butane/Butylene	-240	512	-169	17	8	128	10	741	187
Normal Butane	W	W	W	W	W	W	W	W	-89
Butylene	W	W	W	W	W	W	W	W	276
Isobutane	143	195	-11	2	4	333	-25	4	292
Finished Motor Gasoline	9,481	45,660	36,411	1,999	987	94,538	6,855	37,826	213,580
Leaded	793	417	392	2	258	1,862	1,513	5,615	10,098
Unleaded	8,688	45,243	36,019	1,997	729	92,676	5,342	32,211	203,482
Finished Aviation Gasoline	108	162	142	0	0	412	17	97	588
Jet Fuel	1,998	10,737	11,455	353	247	24,790	1,113	13,728	49,514
Naphtha-Type	657	1,132	472	244	189	2,694	303	1,449	5,196
Kerosene-Type	1,341	9,605	10,983	109	58	22,096	810	12,279	44,318
Kerosene	8	1,272	318	13	0	1,611	-5	95	2,412
Distillate Fuel Oil	3,862	19,203	16,158	1,656	406	41,285	3,999	13,588	90,922
Residual Fuel Oil	329	5,913	3,456	232	24	9,954	388	9,088	24,876
Less than 0.31 percent sulfur	123	0	613	68	12	816	96	768	2,608
0.31 to 1.00 percent sulfur	128	1,535	523	109	12	2,307	10	1,081	5,401
Greater than 1.00 percent sulfur	78	4,378	2,320	55	0	6,831	282	7,239	16,867
Naphtha for Petrochemical Feedstock Use	128	2,718	163	0	3	3,012	0	157	4,089
Other Oils for Petrochemical Feedstock Use	152	3,354	1,985	0	0	5,491	11	301	6,992
Special Naphthas	107	820	45	146	0	1,118	0	71	1,738
Lubricants	33	1,983	608	407	0	3,031	0	552	4,988
Naphthenic	33	416	0	294	0	743	0	247	1,213
Paraffinic	0	1,567	608	113	0	2,288	0	305	3,775
Waxes	9	171	57	72	0	309	43	66	546
Petroleum Coke	345	3,485	3,925	123	19	7,897	287	4,142	16,935
Marketable	48	1,748	2,875	73	0	4,744	106	3,039	10,165
Catalyst	297	1,737	1,050	50	19	3,153	181	1,103	6,770
Asphalt and Road Oil	428	804	1,632	791	37	3,692	1,008	1,963	15,516
Still Crude	652	4,835	3,231	192	50	8,960	575	4,203	19,518
Miscellaneous Products	52	534	699	0	0	1,285	61	117	2,280
Fuel Use	1	0	208	0	0	209	0	0	216
Nonfuel Use	51	534	491	0	0	1,076	61	117	2,064
Total	18,131	107,231	82,684	6,089	1,819	215,954	14,544	87,962	468,486
Processing Gain(-) or Loss(+) ^a	-434	-6,318	-4,176	-61	-36	-11,025	-308	-5,139	-22,306

^a Represents the arithmetic difference between input and production.

W = Withheld to avoid disclosure of individual company data.

Sources: See Explanatory Notes.

**Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts,
October 1990
(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	12,761	804	13,565	8,358	1,578	2,875	12,811
Petroleum Products	43,396	2,332	45,728	38,211	5,570	14,538	58,317
Pentanes Plus	14	0	14	121	48	132	301
Liquefied Petroleum Gases	1,659	15	1,674	3,026	194	594	3,814
Ethane/Ethylene	7	0	7	1	0	0	1
Propane/Propylene	1,055	2	1,057	1,801	45	47	1,893
Normal Butane/Butylene	532	8	540	971	82	439	1,492
Isobutane	65	5	70	253	67	108	428
Other Hydrocarbons and Alcohol	195	4	199	172	10	65	247
Unfinished Oils	12,416	862	13,278	10,198	512	5,196	15,906
Naphthas and Lighter	3,291	225	3,516	2,653	170	1,797	4,620
Kerosene and Light Gas Oils	2,432	128	2,560	1,356	88	144	1,588
Heavy Gas Oils	5,782	343	6,125	3,548	251	2,212	6,011
Residuum	911	166	1,077	2,641	3	1,043	3,687
Motor Gasoline Blending Components	5,009	72	5,081	5,131	625	1,532	7,288
Aviation Gasoline Blending Components	0	0	0	72	0	53	125
Finished Motor Gasoline	7,516	334	7,850	6,722	1,440	2,485	10,647
Leaded	0	19	19	130	88	334	552
Unleaded	7,516	315	7,831	6,592	1,352	2,151	10,095
Finished Aviation Gasoline	26	0	26	85	7	34	126
Jet Fuel	2,231	111	2,342	1,598	261	487	2,346
Naphtha-Type	165	111	296	238	25	111	374
Kerosene-Type	2,046	0	2,046	1,360	236	376	1,972
Kerosene	246	40	286	480	88	292	860
Distillate Fuel Oil	8,714	319	9,033	3,787	1,697	2,224	7,708
Residual Fuel Oil	2,337	47	2,384	2,141	233	148	2,522
Less than 0.31 percent sulfur	732	36	768	14	0	0	14
0.31 to 1.00 percent sulfur	765	0	765	378	0	87	465
Greater than 1.00 percent sulfur	840	11	851	1,749	233	61	2,043
Naphtha for Petrochemical Feedstock Use	152	0	152	215	0	53	268
Other Oils for Petrochemical Feedstock Use	2	0	2	254	0	79	333
Special Naphthas	63	32	95	99	0	103	202
Lubricants	318	264	582	632	0	0	632
Waxes	0	74	74	114	0	15	129
Petroleum Coke (Marketable)	704	0	704	948	39	507	1,494
Asphalt and Road Oil	1,684	107	1,791	2,194	410	515	3,119
Miscellaneous Products	110	51	161	222	6	22	250
Total Stocks, All Oils	56,157	3,136	59,293	46,569	7,148	17,211	70,928

See footnotes at end of table.

**Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts,
October 1990 (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	1,261	27,717	17,860	1,357	337	48,532	1,834	25,603	102,145
Petroleum Products	10,514	79,781	49,665	4,507	1,012	145,479	9,912	62,176	321,612
Pentanes Plus	208	225	86	15	25	559	2	21	897
Liquefied Petroleum Gases	2,471	3,740	4,742	91	84	11,128	517	1,424	18,557
Ethane/Ethylene	117	722	0	0	0	839	0	0	847
Propane/Propylene	1,205	1,459	1,355	7	3	4,029	157	83	7,219
Normal Butane/Butylene	767	679	2,653	73	72	4,244	264	1,088	7,628
Isobutane	382	880	734	11	9	2,016	96	253	2,863
Other Hydrocarbons and Alcohol	77	332	135	0	26	570	191	238	1,445
Unfinished Oils	2,208	27,959	17,320	691	134	48,312	2,029	24,250	103,775
Naphthas and Lighter	797	7,913	3,907	140	22	12,779	422	3,849	25,166
Kerosene and Light Gas Oils	309	6,596	2,739	24	3	9,671	379	3,888	18,086
Heavy Gas Oils	672	8,561	7,216	466	109	17,024	824	12,030	42,014
Residuum	430	4,889	3,458	61	0	8,838	404	4,483	18,489
Motor Gasoline Blending Components	1,364	8,145	6,664	150	187	16,510	1,999	7,351	38,229
Aviation Gasoline Blending Components	0	7	38	0	0	45	0	0	170
Finished Motor Gasoline	1,763	11,275	4,890	560	155	18,643	1,819	9,061	48,020
Leaded	221	71	33	1	39	365	572	2,079	3,587
Unleaded	1,542	11,204	4,857	559	116	18,278	1,247	6,982	44,433
Finished Aviation Gasoline	48	233	151	0	0	432	27	143	754
Jet Fuel	698	5,259	3,065	205	159	9,386	515	4,971	19,560
Naphtha-Type	225	698	395	166	93	1,577	195	745	3,187
Kerosene-Type	473	4,561	2,670	39	66	7,809	320	4,226	16,373
Kerosene	37	573	382	37	0	1,029	17	56	2,243
Distillate Fuel Oil	789	8,865	3,930	949	109	14,642	1,431	4,732	37,546
Residual Fuel Oil	305	4,037	3,632	218	33	8,225	475	5,325	18,931
Less than 0.31 percent sulfur	60	0	1,765	5	29	1,859	64	688	3,393
0.31 to 1.00 percent sulfur	101	666	424	143	4	1,338	213	718	3,499
Greater than 1.00 percent sulfur	144	3,371	1,443	70	0	5,028	198	3,919	12,039
Naphtha for Petrochemical Feedstock Use	27	758	177	0	8	970	0	98	1,488
Other Oils for Petrochemical Feedstock Use	101	1,910	207	0	0	2,218	2	153	2,708
Special Naphthas	90	1,109	19	77	0	1,295	6	80	1,678
Lubricants	14	3,236	697	332	0	4,279	33	883	6,409
Waxes	7	252	153	19	0	431	187	125	946
Petroleum Coke (Marketable)	13	735	2,048	394	0	3,190	8	1,752	7,148
Asphalt and Road Oil	267	821	721	769	92	2,670	630	1,409	9,619
Miscellaneous Products	27	310	608	0	0	945	24	104	1,484
Total Stocks, All Oils	11,775	107,498	67,525	5,864	1,349	194,011	11,748	87,779	423,757

Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

**Table 21. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts,^a
October 1990**

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	1.9	-0.5	1.7	3.6	2.0	0.4	2.7
Finished Motor Gasoline ^b	43.4	37.0	42.9	51.5	51.7	48.6	50.9
Finished Aviation Gasoline ^c	0.1	0.0	0.0	0.1	0.2	0.1	0.1
Naphtha-Type Jet Fuel	0.8	2.1	0.9	0.3	0.2	1.0	0.4
Kerosene-Type Jet Fuel	7.5	0.0	6.9	6.7	6.6	6.8	6.7
Kerosene	0.5	1.9	0.8	0.5	0.9	0.1	0.5
Distillate Fuel Oil	24.2	32.1	24.8	20.9	27.0	28.6	23.2
Residual Fuel Oil	8.0	1.9	7.6	2.8	2.4	0.9	2.4
Naphtha for Petrochemical Feedstock Use	0.9	0.0	0.8	0.9	0.0	0.0	0.6
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	1.7	0.0	0.5	1.3
Special Naphthas	0.1	0.6	0.1	0.4	0.0	1.3	0.5
Lubricants	1.1	8.2	1.6	0.8	0.0	1.1	0.8
Waxes	0.0	2.7	0.2	0.0	0.0	0.1	0.0
Petroleum Coke	3.0	0.8	2.9	3.3	6.0	3.7	3.7
Asphalt and Road Oil	8.2	8.0	8.2	6.2	4.2	5.1	5.8
Still Gas	4.2	4.3	4.3	4.5	3.9	3.9	4.3
Miscellaneous Products	0.7	1.7	0.8	0.6	0.5	0.2	0.5
Processing Gain(-) or Loss(+) ^d	-4.6	-0.7	-4.3	-4.7	-5.4	-2.5	-4.3

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	2.7	5.7	3.2	1.9	2.9	4.4	1.4	2.5	3.3
Finished Motor Gasoline ^b	49.2	43.2	43.6	28.3	49.3	43.4	45.9	43.4	45.1
Finished Aviation Gasoline ^c	0.7	0.2	0.1	0.0	0.0	0.2	0.1	0.1	0.1
Naphtha-Type Jet Fuel	4.1	1.2	0.6	4.3	12.0	1.4	2.2	1.8	1.2
Kerosene-Type Jet Fuel	8.3	9.9	14.7	1.9	3.7	11.3	5.9	15.5	10.5
Kerosene	0.0	1.3	0.4	0.2	0.0	0.8	0.0	0.1	0.6
Distillate Fuel Oil	23.9	19.7	21.7	29.5	25.9	21.2	29.3	17.1	21.5
Residual Fuel Oil	2.0	6.1	4.6	4.1	1.5	5.1	2.8	11.4	5.9
Naphtha for Petrochemical Feedstock Use	0.8	2.8	0.2	0.0	0.2	1.5	0.0	0.2	1.0
Other Oils for Petrochemical Feedstock Use	0.9	3.4	2.7	0.0	0.0	2.8	0.1	0.4	1.7
Special Naphthas	0.7	0.8	0.1	2.6	0.0	0.6	0.0	0.1	0.4
Lubricants	0.2	2.0	0.8	7.2	0.0	1.6	0.0	0.7	1.2
Waxes	0.1	0.2	0.1	1.3	0.0	0.2	0.3	0.1	0.1
Petroleum Coke	2.1	3.6	5.3	2.2	1.2	4.0	2.1	5.2	4.0
Asphalt and Road Oil	2.6	0.8	2.2	14.1	2.4	1.9	7.4	2.5	3.7
Still Gas	4.0	5.0	4.3	3.4	3.2	4.6	4.2	5.3	4.6
Miscellaneous Products	0.3	0.5	0.9	0.0	0.0	0.7	0.4	0.1	0.5
Processing Gain(-) or Loss(+) ^d	-2.7	-6.5	-5.6	-1.1	-2.3	-5.7	-2.3	-6.5	-5.3

^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 alcohol.

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

^d Represents the difference between input and production.

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

Sources: See Explanatory Notes.

Table 22. Imports of Residual Fuel Oil by Sulfur Content and by State of Entry, October 1990
(Thousand Barrels)

State	Residual Fuel Oil			Total
	Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	
PAD District I	1,367	2,039	6,349	9,755
Delaware	0	0	140	140
Florida	2	146	747	895
Georgia	0	0	297	297
Maine	0	0	628	628
Maryland	0	275	736	1,011
Massachusetts	0	0	1,192	1,192
New Hampshire	0	0	103	103
New Jersey	0	489	1,077	1,566
New York	1,365	1,055	1,000	3,420
North Carolina	0	0	115	115
Pennsylvania	0	0	45	45
South Carolina	0	0	64	64
Vermont	0	0	10	10
Virginia	0	74	195	269
PAD District II	0	43	9	52
Minnesota	0	2	0	2
North Dakota	0	41	9	50
PAD District III	347	378	299	1,024
Texas	347	378	299	1,024
PAD District V	688	284	0	972
California	179	284	0	463
Hawaii	509	0	0	509
U.S. Total	2,402	2,744	6,657	11,803

Sources: See Explanatory Notes.

**Table 23. Imports of Crude Oil and Petroleum Products by PAD District,
October 1990
(Thousand Barrels)**

Commodity	Petroleum Administration for Defense Districts					U.S. Total	Daily Average
	I	II	III	IV	V		
Crude Oil^{a,b}	37,088	29,456	81,601	2,492	8,443	159,080	5,132
Natural Gas Liquids	1,450	2,833	697	257	89	5,126	165
Pentanes Plus	220	40	0	47	0	307	10
Liquefied Petroleum Gases	1,230	2,593	697	210	89	4,819	155
Ethane/Ethylene	0	321	0	0	0	321	10
Propane/Propylene	895	1,585	174	73	17	2,744	89
Normal Butane/Butylene	330	682	473	125	61	1,671	54
Isobutane	5	5	50	12	11	83	3
Other Liquids	5,428	0	8,268	0	0	13,692	442
Unfinished Oils ^a	4,919	0	8,024	0	0	12,943	418
Naphthas and Lighter	524	0	698	0	0	1,222	39
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	2,661	0	1,144	0	0	3,805	123
Residuum	1,734	0	6,182	0	0	7,916	255
Motor Gasoline Blending Components	507	0	242	0	0	749	24
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	23,838	747	3,391	84	1,974	29,832	962
Finished Motor Gasoline	5,265	200	1	36	447	5,949	192
Leaded	0	0	1	6	0	7	(b)
Unleaded	5,265	200	0	30	447	5,942	192
Finished Aviation Gasoline	3	0	0	0	2	5	(b)
Jet Fuel	1,702	52	0	0	252	2,006	65
Naphtha-Type	554	52	0	0	0	606	20
Kerosene-Type	1,148	0	0	0	252	1,400	45
Bonded Aircraft Fuel	623	0	0	0	246	869	28
Other	525	0	0	0	6	531	17
Kerosene	21	0	0	0	0	21	1
Distillate Fuel Oil	5,367	243	0	48	226	5,884	190
Bonded Ship Bunkers	0	0	0	1	0	1	(b)
Other	5,367	243	0	47	226	5,883	190
Residual Fuel Oil	9,755	52	1,024	0	972	11,803	381
Bonded Ship Bunkers	247	0	0	0	0	247	8
Other	9,508	52	1,024	0	972	11,556	373
Naphtha for Petrochemical Feedstock Use	181	0	790	0	29	1,000	32
Other Oils for Petrochemical Feedstock Use	0	0	1,496	0	0	1,496	48
Special Naphthas	28	113	69	0	9	219	7
Lubricants	302	34	0	0	0	336	11
Waxes	41	1	0	0	4	46	1
Petroleum Coke	0	0	0	0	22	22	1
Asphalt and Road Oil	931	41	11	0	11	994	32
Miscellaneous Products	40	11	0	0	0	51	2
Total	67,600	32,836	93,955	2,833	10,506	207,730	6,701

^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.

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

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

Sources: See Explanatory Notes.

**Table 24. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District,
January-October 1990
(Thousand Barrels)**

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil^{a,b}	380,811	345,550	1,025,529	22,889	75,002	1,849,781	6,085
Natural Gas Liquids	11,431	21,964	20,582	2,598	1,319	57,872	190
Pentanes Plus	1,042	349	276	869	0	2,536	8
Liquefied Petroleum Gases	10,389	21,615	20,286	1,727	1,319	55,336	182
Ethane/Ethylene	0	721	886	0	0	1,607	5
Propane/Propylene	9,305	15,732	8,246	939	717	34,939	115
Normal Butane/Butylene	1,009	4,580	7,872	645	268	14,374	47
Isobutane	75	582	3,282	143	334	4,416	15
Other Liquids	50,644	97	88,427	5	1,385	138,558	458
Unfinished Oils ^a	34,321	0	83,383	5	889	118,598	390
Naphthas and Lighter	2,630	0	20,740	5	0	23,375	77
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	27,428	0	19,418	0	689	47,535	156
Residuum	4,263	0	43,225	0	200	47,688	157
Motor Gasoline Blending Components	16,323	97	3,044	0	496	19,960	66
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	355,226	6,103	69,390	1,089	16,862	448,650	1,476
Finished Motor Gasoline	92,625	1,577	5,173	417	4,770	104,562	344
Leaded	0	0	26	62	301	389	1
Unleaded	92,625	1,577	5,147	355	4,469	104,173	343
Finished Aviation Gasoline	15	0	0	0	30	45	(8)
Jet Fuel	23,260	523	5,910	0	2,626	32,319	106
Naphtha-Type	801	493	0	0	21	1,315	4
Kerosene-Type	22,459	30	5,910	0	2,605	31,004	102
Bonded Aircraft Fuel	7,994	30	4,556	0	2,185	14,765	49
Other	14,465	0	1,354	0	420	16,239	53
Kerosene	1,010	0	442	0	0	1,452	5
Distillate Fuel Oil	82,050	1,900	440	593	1,448	86,431	284
Bonded Ship Bunkers	119	0	0	14	0	133	(8)
Other	81,931	1,900	440	579	1,448	86,298	284
Residual Fuel Oil	141,110	595	8,390	59	7,137	157,291	517
Bonded Ship Bunkers	574	0	0	0	0	574	2
Other	140,536	595	8,390	59	7,137	156,717	516
Naphtha for Petrochemical Feedstock Use	2,443	455	17,122	0	326	20,346	67
Other Oils for Petrochemical Feedstock Use	0	0	29,339	0	0	29,339	97
Special Naphthas	156	509	1,846	0	82	2,593	9
Lubricants	2,542	261	93	0	70	2,966	10
Waxes	270	47	14	0	24	355	1
Petroleum Coke	0	0	273	0	322	595	2
Asphalt and Road Oil	9,269	162	346	0	27	9,804	32
Miscellaneous Products	476	74	2	0	0	552	2
Total	798,112	373,714	1,201,908	26,559	94,568	2,494,861	8,207

^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.

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

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

Sources: See Explanatory Notes.

Table 25. Imports of Crude Oil and Petroleum Products Into the United States by Country of Origin,^a
October 1990
(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			Total
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	
Arab OPEC	48,118	739	4,485	0	1,589	159	0	875	0	91	766
Algeria	482	329	2,397	0	0	0	0	875	0	0	875
Saudi Arabia	45,656	410	2,088	0	1,589	159	0	0	0	91	91
Other OPEC	44,443	0	834	238	1,078	869	2,370	398	375	2,093	2,866
Ecuador	1,340	0	0	0	0	0	0	0	0	182	182
Gabon	1,538	0	0	0	0	0	0	0	0	0	0
Indonesia	2,730	0	0	0	0	0	0	0	0	0	0
Nigeria	16,611	0	0	0	0	0	0	398	260	0	658
Venezuela	22,224	0	834	238	1,078	869	2,370	0	115	1,911	2,026
Non OPEC	68,519	4,080	7,624	511	3,282	978	3,514	1,329	2,369	4,473	8,171
Angola	4,302	0	0	0	0	0	0	0	0	0	0
Argentina	358	0	87	0	0	0	268	0	55	435	490
Australia	947	0	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	0	83	199	282
Belgium	0	0	0	411	0	0	0	179	277	0	458
Brazil	0	0	0	4	0	0	0	0	0	371	371
Cameroon	0	0	0	0	0	0	0	370	0	0	370
Canada	19,728	3,535	185	0	1,420	255	1,173	0	43	1,209	1,252
China, People's Republic of	2,633	0	0	0	0	0	0	0	0	0	0
Colombia	4,942	0	0	0	0	0	0	0	55	668	723
Congo	0	0	0	0	0	0	0	0	333	0	333
Egypt	715	0	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Guatemala	220	0	0	0	0	0	0	0	0	0	0
India	0	0	268	0	0	0	0	0	0	0	0
Ireland	0	0	344	0	0	0	0	0	130	0	130
Italy	0	0	493	0	0	0	0	0	140	0	140
Japan	0	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	0	0	0	0	0	0	0	0
Malaysia	2,430	0	0	0	0	0	0	0	0	0	0
Mexico	24,598	545	0	0	1	0	0	0	227	50	277
Netherlands	0	0	929	48	0	0	180	0	0	0	0
Netherlands Antilles	0	0	0	0	498	0	0	0	0	833	833
Norway	2,083	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	0	275	0	275
Puerto Rico	0	0	33	0	0	361	0	0	0	0	0
Singapore	0	0	0	0	0	0	0	509	0	0	509
Spain	0	0	482	0	0	0	0	0	0	0	0
Sweden	0	0	182	0	0	0	0	0	0	0	0
Syria	595	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	2,360	0	0	0	0	0	225	0	0	0	0
United Kingdom	1,362	0	688	0	0	0	0	2	482	0	484
U.S.S.R.	297	0	2,387	0	0	0	0	0	0	0	0
Virgin Islands	0	0	1,586	48	1,363	362	1,688	289	289	708	1,266
Zaire	953	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	159,080	4,819	12,943	749	5,949	2,006	5,884	2,402	2,744	6,657	11,903

See footnotes at end of table.

**Table 25. Imports of Crude Oil and Petroleum Products Into the United States by Country of Origin,^a
October 1990 (Continued)
(Thousand Barrels)**

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	1,496	0	0	0	9,234	55,352	1,786
Algeria	0	0	0	1,496	0	0	0	4,897	5,359	173
Saudi Arabia	0	0	0	0	0	0	0	4,337	49,993	1,613
Other OPEC	0	0	142	0	0	580	0	8,977	53,420	1,723
Ecuador	0	0	0	0	0	0	0	182	1,522	49
Gabon	0	0	0	0	0	0	0	0	1,538	50
Indonesia	0	0	0	0	0	0	0	0	2,730	88
Nigeria	0	0	0	0	0	0	0	658	17,269	557
Venezuela	0	0	142	0	0	580	0	8,137	30,361	979
Non OPEC	21	219	858	0	336	414	431	30,439	98,958	3,192
Angola	0	0	0	0	0	0	0	0	4,302	139
Argentina	0	18	0	0	0	0	0	883	1,219	39
Australia	0	0	0	0	0	0	0	0	947	31
Bahama Islands	0	0	0	0	0	0	0	282	282	9
Belgium	0	0	0	0	0	0	0	867	867	28
Brazil	0	0	0	0	0	0	1	376	376	12
Cameroon	0	0	0	0	0	0	0	370	370	12
Canada	21	194	1	0	81	235	141	8,477	28,203	910
China, People's Republic of	0	0	0	0	0	0	0	0	2,633	85
Colombia	0	0	0	0	0	0	0	723	5,665	183
Congo	0	0	0	0	0	0	0	333	333	11
Egypt	0	0	0	0	0	0	0	0	715	23
Germany, FR (W)	0	0	0	0	0	0	10	10	10	(8)
Guatemala	0	0	0	0	0	0	0	0	220	7
India	0	0	584	0	0	0	0	852	852	27
Ireland	0	0	0	0	0	0	0	474	474	15
Italy	0	0	0	0	0	0	12	645	645	21
Japan	0	0	0	0	0	0	3	3	3	(8)
Korea, Republic of	0	0	29	0	0	0	0	29	29	1
Malaysia	0	0	0	0	0	0	0	0	2,430	78
Mexico	0	0	0	0	0	11	224	1,058	25,656	828
Netherlands	0	7	7	0	0	0	0	1,151	1,151	37
Netherlands Antilles	0	0	0	0	0	0	0	1,331	1,331	43
Norway	0	0	0	0	0	0	0	0	2,083	67
Peru	0	0	0	0	0	0	0	275	275	9
Puerto Rico	0	0	219	0	251	0	39	903	903	29
Singapore	0	0	0	0	0	0	0	509	509	16
Spain	0	0	0	0	0	168	0	650	650	21
Sweden	0	0	18	0	0	0	0	180	180	6
Syria	0	0	0	0	0	0	0	0	595	19
Trinidad and Tobago	0	0	0	0	0	0	0	225	2,585	83
United Kingdom	0	0	0	0	0	0	0	1,152	2,514	81
U.S.S.R.	0	0	0	0	0	0	0	2,387	2,684	87
Virgin Islands	0	0	0	0	0	0	0	6,313	6,313	204
Zaire	0	0	0	0	0	0	0	0	953	31
Other	0	0	0	0	0	0	1	1	1	(8)
Total	21	219	1,000	1,496	336	994	431	48,650	207,730	6,701

^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, pentanes plus, petroleum coke, and waxes.

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

E = Estimated.

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

Sources: See Explanatory Notes.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1990
(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			Total
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	
Arab OPEC	8,250	587	1,734	0	1,265	159	0	328	0	0	328
Algeria	0	329	1,734	0	0	0	0	328	0	0	328
Saudi Arabia	8,250	258	0	0	1,265	159	0	0	0	0	0
Other OPEC	17,061	0	524	0	1,078	623	2,370	398	260	2,093	2,751
Ecuador	380	0	0	0	0	0	0	0	0	182	182
Gabon	1,538	0	0	0	0	0	0	0	0	0	0
Nigeria	11,538	0	0	0	0	0	0	398	260	0	658
Venezuela	3,607	0	524	0	1,078	623	2,370	0	0	1,911	1,911
Non OPEC	11,777	643	2,661	507	2,922	920	2,997	641	1,779	4,258	6,876
Angola	1,980	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	0	0	0	0	268	0	55	227	282
Bahama Islands	0	0	0	0	0	0	0	0	83	199	282
Belgium	0	0	0	411	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	0	371	371
Cameroon	0	0	0	0	0	0	0	370	0	0	370
Canada	1,754	643	0	0	1,061	197	818	0	0	1,200	1,200
China, People's Republic of	725	0	0	0	0	0	0	0	0	0	0
Colombia	1,006	0	0	0	0	0	0	0	55	668	723
Congo	0	0	0	0	0	0	0	0	333	0	333
Egypt	715	0	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Italy	0	0	483	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0	0
Mexico	2,909	0	0	0	0	0	0	0	227	50	277
Netherlands	0	0	607	48	0	0	0	0	0	0	0
Netherlands Antilles	0	0	0	0	498	0	0	0	0	833	833
Norway	1,507	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	0	275	0	275
Puerto Rico	0	0	33	0	0	361	0	0	0	0	0
Spain	0	0	263	0	0	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	0	225	0	0	0	0
United Kingdom	524	0	0	0	0	0	0	2	462	0	464
Virgin Islands	0	0	1,265	48	1,363	362	1,688	269	289	708	1,286
Zaire	657	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	37,088	1,230	4,919	507	5,265	1,702	5,367	1,367	2,039	6,349	9,755

See footnotes at end of table.

**Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1990 (Continued)
(Thousand Barrels)**

Country of Origin	Kerosene	Special Naphtha	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^b	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	0	0	0	0	4,073	12,323	398
Algeria	0	0	0	0	0	0	0	2,391	2,391	77
Saudi Arabia	0	0	0	0	0	0	0	1,682	9,932	320
Other OPEC	0	0	0	0	0	580	0	7,926	24,987	806
Ecuador	0	0	0	0	0	0	0	182	562	18
Gabon	0	0	0	0	0	0	0	0	1,538	50
Nigeria	0	0	0	0	0	0	0	658	12,194	393
Venezuela	0	0	0	0	0	580	0	7,086	10,693	345
Non OPEC	21	28	181	0	302	351	304	18,513	30,290	977
Angola	0	0	0	0	0	0	0	0	1,980	64
Argentina	0	0	0	0	0	0	0	550	550	18
Bahama Islands	0	0	0	0	0	0	0	282	282	9
Belgium	0	0	0	0	0	0	0	411	411	13
Brazil	0	0	0	0	0	0	1	372	372	12
Cameroon	0	0	0	0	0	0	0	370	370	12
Canada	21	28	1	0	51	183	18	4,219	5,973	193
China, People's Republic of	0	0	0	0	0	0	0	0	725	23
Colombia	0	0	0	0	0	0	0	723	1,729	56
Congo	0	0	0	0	0	0	0	333	333	11
Egypt	0	0	0	0	0	0	0	0	715	23
Germany, FR (W)	0	0	0	0	0	0	10	10	10	(a)
Italy	0	0	0	0	0	0	12	505	505	16
Japan	0	0	0	0	0	0	3	3	3	(a)
Mexico	0	0	0	0	0	0	220	497	3,406	110
Netherlands	0	0	0	0	0	0	0	655	655	21
Netherlands Antilles	0	0	0	0	0	0	0	1,331	1,331	43
Norway	0	0	0	0	0	0	0	0	1,507	49
Peru	0	0	0	0	0	0	0	275	275	9
Puerto Rico	0	0	180	0	251	0	39	864	864	28
Spain	0	0	0	0	0	168	0	431	431	14
Trinidad and Tobago	0	0	0	0	0	0	0	225	225	7
United Kingdom	0	0	0	0	0	0	0	464	988	32
Virgin Islands	0	0	0	0	0	0	0	5,992	5,992	193
Zaire	0	0	0	0	0	0	0	0	657	21
Other	0	0	0	0	0	0	1	1	1	(a)
Total	21	28	181	0	302	931	304	30,512	67,600	2,181

^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, pentanes plus, petroleum coke, and waxes.

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

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1990
(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			Total
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	
Arab OPEC	6,627	0	0	0	0	0	0	0	0	0	0
Algeria	306	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	6,321	0	0	0	0	0	0	0	0	0	0
Other OPEC	4,025	0	0	0	0	0	0	0	0	0	0
Venezuela	4,025	0	0	0	0	0	0	0	0	0	0
Non OPEC	18,804	2,593	0	0	200	52	243	0	43	9	52
Canada	14,909	2,593	0	0	200	52	243	0	43	9	52
Mexico	2,878	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	529	0	0	0	0	0	0	0	0	0	0
United Kingdom	488	0	0	0	0	0	0	0	0	0	0
Total	29,456	2,593	0	0	200	52	243	0	43	9	52

See footnotes at end of table.

**Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1990 (Continued)
(Thousand Barrels)**

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	0	0	0	0	0	6,627	214
Algeria	0	0	0	0	0	0	0	0	306	10
Saudi Arabia	0	0	0	0	0	0	0	0	6,321	204
Other OPEC	0	0	0	0	0	0	0	0	4,025	130
Venezuela	0	0	0	0	0	0	0	0	4,025	130
Non OPEC	0	113	0	0	34	41	52	3,380	22,184	716
Canada	0	113	0	0	34	41	52	3,380	18,289	590
Mexico	0	0	0	0	0	0	0	0	2,878	93
Trinidad and Tobago	0	0	0	0	0	0	0	0	529	17
United Kingdom	0	0	0	0	0	0	0	0	488	16
Total	0	113	0	0	34	41	52	3,380	32,836	1,059

^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, pentanes plus, petroleum coke, and waxes.

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

E = Estimated.

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

Sources: See Explanatory Notes.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1990
(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			Total
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	
Arab OPEC	31,241	152	2,751	0	0	0	0	347	0	91	438
Algeria	156	0	663	0	0	0	0	347	0	0	347
Saudi Arabia	31,085	152	2,088	0	0	0	0	0	0	91	91
Other OPEC	19,859	0	310	238	0	0	0	0	115	0	115
Ecuador	410	0	0	0	0	0	0	0	0	0	0
Nigeria	5,075	0	0	0	0	0	0	0	0	0	0
Venezuela	14,374	0	310	238	0	0	0	0	115	0	115
Non OPEC	30,501	545	4,963	4	1	0	0	0	263	208	471
Angola	2,322	0	0	0	0	0	0	0	0	0	0
Argentina	356	0	87	0	0	0	0	0	0	208	208
Brazil	0	0	0	4	0	0	0	0	0	0	0
Canada	0	0	165	0	0	0	0	0	0	0	0
China, People's Republic of	650	0	0	0	0	0	0	0	0	0	0
Colombia	3,936	0	0	0	0	0	0	0	0	0	0
Guatemala	220	0	0	0	0	0	0	0	0	0	0
India	0	0	268	0	0	0	0	0	0	0	0
Ireland	0	0	344	0	0	0	0	0	123	0	123
Italy	0	0	0	0	0	0	0	0	140	0	140
Malaysia	1,509	0	0	0	0	0	0	0	0	0	0
Mexico	17,563	545	0	0	1	0	0	0	0	0	0
Netherlands	0	0	322	0	0	0	0	0	0	0	0
Norway	576	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	219	0	0	0	0	0	0	0	0
Sweden	0	0	162	0	0	0	0	0	0	0	0
Syria	595	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	1,831	0	0	0	0	0	0	0	0	0	0
United Kingdom	350	0	688	0	0	0	0	0	0	0	0
U.S.S.R.	297	0	2,387	0	0	0	0	0	0	0	0
Virgin Islands	0	0	321	0	0	0	0	0	0	0	0
Zaire	296	0	0	0	0	0	0	0	0	0	0
Total	81,601	697	8,024	242	1	0	0	347	378	299	1,024

See footnotes at end of table.

**Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1990 (Continued)
(Thousand Barrels)**

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	1,496	0	0	0	4,837	36,078	1,164
Algeria	0	0	0	1,496	0	0	0	2,506	2,662	86
Saudi Arabia	0	0	0	0	0	0	0	2,331	33,416	1,078
Other OPEC	0	0	142	0	0	0	0	805	20,664	667
Ecuador	0	0	0	0	0	0	0	0	410	13
Nigeria	0	0	0	0	0	0	0	0	5,075	164
Venezuela	0	0	142	0	0	0	0	805	15,179	490
Non OPEC	0	69	648	0	0	11	0	6,712	37,213	1,200
Angola	0	0	0	0	0	0	0	0	2,322	75
Argentina	0	18	0	0	0	0	0	313	669	22
Brazil	0	0	0	0	0	0	0	4	4	(s)
Canada	0	44	0	0	0	0	0	209	209	7
China, People's Republic of	0	0	0	0	0	0	0	0	650	21
Colombia	0	0	0	0	0	0	0	0	3,936	127
Guatemala	0	0	0	0	0	0	0	0	220	7
India	0	0	584	0	0	0	0	852	852	27
Ireland	0	0	0	0	0	0	0	467	467	15
Italy	0	0	0	0	0	0	0	140	140	5
Malaysia	0	0	0	0	0	0	0	0	1,509	49
Mexico	0	0	0	0	0	11	0	557	18,120	585
Netherlands	0	7	7	0	0	0	0	336	336	11
Norway	0	0	0	0	0	0	0	0	576	19
Puerto Rico	0	0	39	0	0	0	0	39	39	1
Spain	0	0	0	0	0	0	0	219	219	7
Sweden	0	0	18	0	0	0	0	180	180	6
Syria	0	0	0	0	0	0	0	0	595	19
Trinidad and Tobago	0	0	0	0	0	0	0	0	1,831	59
United Kingdom	0	0	0	0	0	0	0	688	1,038	33
U.S.S.R.	0	0	0	0	0	0	0	2,387	2,684	87
Virgin Islands	0	0	0	0	0	0	0	321	321	10
Zaire	0	0	0	0	0	0	0	0	296	10
Total	0	69	790	1,496	0	11	0	12,354	93,955	3,031

^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, penanes plus, petroleum coke, and waxes.

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

E = Estimated.

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

Sources: See Explanatory Notes.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1990
(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			Total
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	
PAD District IV											
Non OPEC	2,492	210	0	0	36	0	48	0	0	0	0
Canada	2,492	210	0	0	36	0	48	0	0	0	0
Total	2,492	210	0	0	36	0	48	0	0	0	0
PAD District V											
Arab OPEC	0	0	0	0	324	0	0	0	0	0	0
Saudi Arabia	0	0	0	0	324	0	0	0	0	0	0
Other OPEC	3,498	0	0	0	0	246	0	0	0	0	0
Ecuador	550	0	0	0	0	0	0	0	0	0	0
Indonesia	2,730	0	0	0	0	0	0	0	0	0	0
Venezuela	218	0	0	0	0	246	0	0	0	0	0
Non OPEC	4,945	89	0	0	123	6	226	688	284	0	972
Australia	947	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	0	0	0	0	0	179	277	0	456
Canada	571	89	0	0	123	6	66	0	0	0	0
China, People's Republic of	1,258	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	7	0	7
Korea, Republic of	0	0	0	0	0	0	0	0	0	0	0
Malaysia	921	0	0	0	0	0	0	0	0	0	0
Mexico	1,248	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	160	0	0	0	0
Singapore	0	0	0	0	0	0	0	509	0	0	509
Total	8,443	89	0	0	447	252	226	688	284	0	972

See footnotes at end of table.

**Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1990 (Continued)
(Thousand Barrels)**

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Crude Oil and Products	
									Total	Daily Average
PAD District IV										
Non OPEC	0	0	0	0	0	0	47	341	2,833	91
Canada	0	0	0	0	0	0	47	341	2,833	91
Total	0	0	0	0	0	0	47	341	2,833	91
PAD District V										
Arab OPEC	0	0	0	0	0	0	0	324	324	10
Saudi Arabia	0	0	0	0	0	0	0	324	324	10
Other OPEC	0	0	0	0	0	0	0	246	3,744	121
Ecuador	0	0	0	0	0	0	0	0	550	18
Indonesia	0	0	0	0	0	0	0	0	2,730	88
Venezuela	0	0	0	0	0	0	0	246	464	15
Non OPEC	0	9	29	0	0	11	28	1,493	6,438	208
Australia	0	0	0	0	0	0	0	0	947	31
Belgium	0	0	0	0	0	0	0	456	456	15
Canada	0	9	0	0	0	11	24	328	899	29
China, People's Republic of	0	0	0	0	0	0	0	0	1,258	41
Ireland	0	0	0	0	0	0	0	7	7	(8)
Korea, Republic of	0	0	29	0	0	0	0	29	29	1
Malaysia	0	0	0	0	0	0	0	0	921	30
Mexico	0	0	0	0	0	0	4	4	1,252	40
Netherlands	0	0	0	0	0	0	0	160	160	5
Singapore	0	0	0	0	0	0	0	509	509	16
Total	0	9	29	0	0	11	28	2,063	10,506	339

^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, pentanes plus, petroleum coke, and waxes.

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

E = Estimated.

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

Sources: See Explanatory Notes.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products Into the United States by Country of Origin,^a January-October 1990
(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				Total
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur		
Arab OPEC	587,041	9,757	39,944	0	10,732	4,244	6,000	8,316	1,021	2,569		11,906
Algeria	18,757	8,044	13,218	0	0	0	4,560	8,316	786	354		9,458
Iraq	185,859	0	1,432	0	0	0	188	0	0	0		0
Kuwait	28,942	171	614	0	0	35	260	0	0	0		0
Qatar	1,293	0	0	0	0	0	0	0	0	0		0
Saudi Arabia	348,890	1,542	22,930	0	10,732	4,209	992	0	235	1,540		1,775
United Arab Emirates	3,300	0	1,750	0	0	0	0	0	0	675		675
Other OPEC	522,524	1,189	8,934	2,529	22,564	10,797	34,646	6,016	1,999	20,327		28,342
Ecuador	13,127	0	0	0	0	0	131	0	180	2,758		2,938
Gabon	20,292	0	0	0	0	0	0	0	0	105		105
Indonesia	33,515	0	883	0	0	0	0	2,892	0	0		2,892
Nigeria	254,263	0	0	0	184	0	0	2,228	1,631	44		3,901
Venezuela	201,327	1,189	8,051	2,529	22,380	10,797	34,515	898	188	17,420		18,506
Non OPEC	740,216	44,390	69,720	17,431	71,266	17,278	45,785	19,688	35,145	62,210		117,043
Angola	72,023	0	0	0	0	0	0	359	0	0		359
Argentina	2,672	0	1,210	881	1,057	0	1,531	465	2,261	435		3,161
Australia	14,370	1,644	0	0	0	0	0	81	145	0		226
Bahama Islands	0	0	0	0	0	0	208	567	4,543	7,359		12,469
Belgium	0	0	2,718	4,178	1,758	0	0	394	877	0		1,071
Benin	1,192	0	0	0	0	0	0	0	0	0		0
Brazil	0	0	4	4	5,840	0	0	4,443	3,678	459		8,580
Brunei	2,463	0	0	0	0	0	0	0	0	0		0
Cameroon	4,604	0	0	0	0	0	0	370	941	329		1,640
Canada	192,892	30,644	4,060	249	15,937	3,164	15,751	431	1,640	7,692		9,763
China, People's Republic of	23,333	0	0	481	310	0	0	0	0	0		0
Colombia	41,589	0	481	0	0	0	183	327	1,764	10,464		12,555
Congo	7,626	0	0	0	0	0	0	410	905	0		1,315
Denmark	0	0	0	0	0	0	217	0	190	0		190
Egypt	7,605	0	2,189	0	0	0	0	0	172	0		172
France	0	40	501	276	6,118	296	777	0	1,802	531		2,333
Germany, DR (E)	0	0	0	0	0	0	295	0	0	265		265
Germany, FR (W)	0	0	217	0	0	0	0	0	0	0		0
Greece	0	0	0	252	846	551	847	587	0	0		587
Guatemala	1,075	0	0	0	0	0	0	0	0	0		0
India	210	0	5,345	0	0	0	0	0	0	0		0
Ireland	0	0	344	0	0	0	0	0	130	0		130
Italy	669	27	6,750	567	8,232	258	185	678	1,268	687		2,633
Ivory Coast	0	0	110	0	0	0	0	0	168	0		168
Japan	0	6	0	0	0	0	0	0	0	0		0
Korea, Republic of	0	0	0	15	0	0	0	0	0	0		0
Malaysia	13,110	0	0	0	0	0	0	117	0	0		117
Mauritania	0	0	0	0	0	40	0	0	0	0		0
Mexico	212,250	11,433	0	441	6	2,712	2,736	0	259	1,352		1,611
Netherlands	0	30	6,036	1,155	3,959	450	881	0	898	686		1,584
Netherlands Antilles	0	0	509	0	986	0	0	281	0	5,604		5,885
Norway	33,847	0	334	0	744	0	189	0	0	0		0
Oman	13,037	0	256	0	0	0	0	0	0	0		0
Panama	0	0	0	0	0	0	0	0	0	181		181
Peru	0	0	0	0	0	0	0	172	1,007	3,624		4,803
Portugal	0	16	0	42	1,139	0	0	0	954	0		954
Puerto Rico	0	0	1,736	2,387	0	361	0	0	199	0		199
Romania	0	0	0	3,447	866	187	625	0	0	0		0
Singapore	0	0	509	0	0	3	0	2,624	570	0		3,194
Spain	0	0	4,208	138	6,595	838	0	71	1,208	483		1,762
Sweden	0	0	543	0	0	0	0	0	460	0		460
Syria	813	0	412	0	0	0	0	0	0	974		974
Thailand	4,120	0	0	0	0	0	0	0	0	0		0
Trinidad and Tobago	23,709	0	0	0	250	220	589	0	333	5,578		5,911
Tunisia	0	0	0	0	0	0	0	179	0	0		179
Turkey	499	0	639	419	0	0	0	0	0	442		442
United Kingdom	52,301	550	2,521	468	2,768	56	954	2	2,166	194		2,362
U.S.S.R.	297	0	7,608	0	124	0	1,856	553	85	2,273		2,911
Virgin Islands	0	0	18,896	2,031	13,707	8,031	17,593	6,167	5,268	12,041		23,476
Yemen (Sana)	6,993	0	671	0	0	0	0	0	0	0		0
Yugoslavia	0	0	0	0	0	0	368	0	0	0		0
Zaire	6,917	0	0	0	0	0	0	0	0	0		0
Other	0	0	913	0	24	111	0	410	1,454	557		2,421
Total	1,849,781	55,336	118,598	19,960	104,562	32,319	86,431	34,020	38,165	85,106		157,291

See footnotes at end of table.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products Into the United States by Country of Origin,^a January-October 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	138	29	5,997	29,077	0	0	0	117,824	704,865	2,319
Algeria	0	29	5,738	29,077	0	0	0	70,122	88,879	292
Iraq	0	0	0	0	0	0	0	1,620	187,479	617
Kuwait	0	0	0	0	0	0	0	1,080	30,022	99
Qatar	0	0	0	0	0	0	0	0	1,293	4
Saudi Arabia	138	0	259	0	0	0	0	42,577	391,467	1,288
United Arab Emirates	0	0	0	0	0	0	0	2,425	5,725	19
Other OPEC	221	129	2,052	0	0	6,731	28	118,162	640,686	2,108
Ecuador	0	0	0	0	0	0	0	3,069	16,196	53
Gabon	0	0	0	0	0	0	0	105	20,397	67
Indonesia	0	0	716	0	0	0	28	4,519	38,034	125
Nigeria	0	0	0	0	0	0	0	4,085	258,348	850
Venezuela	221	129	1,336	0	0	6,731	0	106,384	307,711	1,012
Non OPEC	1,093	2,435	12,297	262	2,966	3,073	4,055	409,094	1,149,310	3,781
Angola	0	0	0	0	0	0	0	359	72,382	238
Argentina	0	177	15	0	0	0	267	8,299	10,971	36
Australia	0	0	0	0	0	0	0	1,870	16,240	53
Bahama Islands	0	0	0	0	0	0	0	12,677	12,677	42
Belgium	0	0	0	0	0	0	2	9,727	9,727	32
Benin	0	0	0	0	0	0	0	0	1,192	4
Brazil	0	23	0	0	18	0	12	14,481	14,481	48
Brunei	0	0	0	0	0	0	0	0	2,463	8
Cameroon	0	0	0	0	0	0	0	1,640	6,244	21
Canada	227	1,362	828	0	623	1,516	1,810	85,934	278,826	917
China, People's Republic of	0	0	0	0	132	0	31	954	24,287	80
Colombia	0	0	0	0	0	0	5	13,224	54,813	180
Congo	0	0	0	0	0	0	0	1,315	8,941	29
Denmark	0	0	0	0	0	0	0	407	407	1
Egypt	0	0	705	0	0	0	9	3,075	10,680	35
France	0	0	375	0	0	0	0	10,716	10,716	35
Germany, DR (E)	0	0	0	0	0	0	0	560	560	2
Germany, FR (W)	0	0	0	0	0	0	76	293	293	1
Greece	0	0	235	0	0	0	0	3,318	3,318	11
Guatemala	0	0	0	0	0	0	0	0	1,075	4
India	0	0	4,211	0	0	0	0	9,556	9,766	32
Ireland	0	0	0	0	0	0	0	474	474	2
Italy	0	8	21	262	0	0	28	18,969	19,638	65
Ivory Coast	0	0	0	0	0	0	0	278	278	1
Japan	0	4	82	0	31	0	66	189	189	1
Korea, Republic of	0	0	276	0	0	0	0	291	291	1
Malaysia	0	0	0	0	0	0	0	117	13,227	44
Mauritania	0	0	0	0	0	0	0	40	40	(s)
Mexico	0	0	0	0	0	101	1,256	20,296	232,546	765
Netherlands	0	810	1,700	0	30	0	10	16,645	16,645	55
Netherlands Antilles	0	0	0	0	0	612	0	7,992	7,992	26
Norway	0	0	0	0	0	0	0	1,267	35,114	116
Oman	0	0	0	0	0	0	0	256	13,293	44
Panama	0	0	0	0	0	0	0	181	181	1
Peru	0	0	0	0	0	0	0	4,803	4,803	16
Portugal	0	28	0	0	22	0	0	2,201	2,201	7
Puerto Rico	0	0	2,160	0	2,098	0	468	9,409	9,409	31
Romania	0	0	0	0	0	0	0	5,125	5,125	17
Singapore	0	0	0	0	0	0	0	3,706	3,706	12
Spain	0	0	107	0	12	844	0	14,504	14,504	48
Sweden	0	0	295	0	0	0	0	1,298	1,298	4
Syria	0	0	0	0	0	0	0	1,386	2,199	7
Thailand	0	0	0	0	0	0	0	0	4,120	14
Trinidad and Tobago	0	22	0	0	0	0	0	6,992	30,701	101
Tunisia	0	0	0	0	0	0	0	179	179	1
Turkey	0	0	0	0	0	0	0	1,500	1,999	7
United Kingdom	0	1	746	0	0	0	0	10,426	62,727	206
U.S.S.R.	160	0	321	0	0	0	0	12,980	13,277	44
Virgin Islands	706	0	220	0	0	0	0	84,660	84,660	278
Yemen (Sana)	0	0	0	0	0	0	0	671	7,664	25
Yugoslavia	0	0	0	0	0	0	0	368	368	1
Zaire	0	0	0	0	0	0	0	0	6,917	23
Other	0	0	0	0	0	0	17	3,486	3,486	11
Total	1,452	2,593	20,346	29,339	2,966	9,804	4,083	645,080	2,494,861	8,207

^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, pentanes plus, petroleum coke, and waxes.

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

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1990
(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			Total
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	
Arab OPEC	72,183	5,325	4,806	0	8,783	2,447	5,797	7,079	432	973	8,484
Algeria	419	4,357	4,806	0	0	0	4,560	7,079	432	112	7,623
Iraq	15,670	0	0	0	0	0	188	0	0	0	0
Kuwait	1,519	0	0	0	0	0	260	0	0	0	0
Saudi Arabia	54,575	968	0	0	8,783	2,447	789	0	0	861	861
Other OPEC	189,218	0	762	0	21,006	8,160	34,439	2,768	1,884	20,000	24,650
Ecuador	6,737	0	0	0	0	0	131	0	180	2,758	2,938
Gabon	13,105	0	0	0	0	0	0	0	0	105	105
Nigeria	131,556	0	0	0	184	0	0	2,226	1,831	44	3,901
Venezuela	37,820	0	762	0	20,822	8,160	34,308	540	73	17,093	17,708
Non OPEC	119,410	5,064	28,953	16,323	62,838	12,653	41,814	16,248	31,825	59,905	107,976
Angola	26,580	0	0	0	0	0	0	359	0	0	359
Argentina	387	0	723	849	838	0	1,531	196	2,261	227	2,684
Australia	811	0	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	208	567	4,543	7,078	12,188
Belgium	0	0	1,256	4,178	1,758	0	0	215	400	0	615
Benin	327	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	4,720	0	0	4,443	3,678	459	8,580
Brunei	568	0	0	0	0	0	0	0	0	0	0
Cameroon	1,678	0	0	0	0	0	0	370	941	329	1,640
Canada	18,750	4,878	851	152	12,663	2,546	12,169	250	921	7,394	8,565
China, People's Republic of	5,038	0	0	0	0	0	0	0	0	0	0
Colombia	3,953	0	0	0	0	0	183	327	1,521	10,464	12,312
Congo	882	0	0	0	0	0	0	410	905	0	1,315
Denmark	0	0	0	0	0	0	217	0	190	0	190
Egypt	7,034	0	724	0	0	0	0	0	172	0	172
France	0	0	334	276	5,618	296	777	0	1,802	531	2,333
Germany, DR (E)	0	0	0	0	0	0	295	0	0	265	265
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	252	846	379	847	587	0	0	587
India	0	0	498	0	0	0	0	0	0	0	0
Italy	669	0	2,905	449	7,783	258	185	678	592	687	1,957
Ivory Coast	0	0	110	0	0	0	0	0	168	0	168
Japan	0	0	0	0	0	0	0	0	0	0	0
Malaysia	843	0	0	0	0	0	0	0	0	0	0
Mauritania	0	0	0	0	0	40	0	0	0	0	0
Mexico	24,660	0	0	438	0	451	2,507	0	259	646	905
Netherlands	0	0	2,555	1,039	3,423	450	721	0	698	686	1,584
Netherlands Antilles	0	0	0	0	986	0	0	0	0	5,604	5,604
Norway	15,392	0	0	0	744	0	189	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	181	181
Peru	0	0	0	0	0	0	0	172	1,007	3,624	4,803
Portugal	0	0	0	16	897	0	0	0	954	0	954
Puerto Rico	0	0	1,736	2,387	0	361	0	0	199	0	199
Romania	0	0	0	3,447	866	187	625	0	0	0	0
Singapore	0	0	0	0	0	0	0	660	0	0	660
Spain	0	0	1,876	138	6,317	838	0	71	989	302	1,362
Sweden	0	0	0	0	0	0	0	0	460	0	460
Syria	0	0	0	0	0	0	0	0	0	974	974
Trinidad and Tobago	2,716	0	0	0	250	0	589	0	333	5,578	5,911
Tunisia	0	0	0	0	0	0	0	179	0	0	179
Turkey	0	0	201	236	0	0	0	0	0	80	80
United Kingdom	3,500	186	528	468	2,768	56	954	2	2,166	194	2,362
U.S.S.R.	0	0	0	0	124	0	1,856	183	85	2,273	2,541
Virgin Islands	0	0	14,478	1,998	12,235	6,680	17,593	6,167	5,021	12,041	23,229
Yemen (Sana)	998	0	0	0	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	368	0	0	0	0
Zaire	4,624	0	0	0	0	0	0	0	0	0	0
Other	0	0	178	0	0	111	0	410	1,360	288	2,058
Total	380,811	10,389	34,321	16,323	92,625	23,260	82,050	26,091	34,141	80,878	141,110

See footnotes at end of table.

**Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1990 (Continued)
(Thousand Barrels)**

Country of Origin									Crude Oil and Products	
	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total	Daily Average
Arab OPEC	138	0	0	0	0	0	0	35,580	107,763	354
Algeria	0	0	0	0	0	0	0	21,146	21,565	71
Iraq	0	0	0	0	0	0	0	188	15,858	52
Kuwait	0	0	0	0	0	0	0	260	1,779	6
Saudi Arabia	138	0	0	0	0	0	0	13,986	68,561	226
Other OPEC	221	0	0	0	0	6,520	0	95,758	284,976	937
Ecuador	0	0	0	0	0	0	0	3,069	9,806	32
Gabon	0	0	0	0	0	0	0	105	13,210	43
Nigeria	0	0	0	0	0	0	0	4,085	135,641	446
Venezuela	221	0	0	0	0	6,520	0	88,499	126,319	416
Non OPEC	651	156	2,443	0	2,542	2,749	1,803	285,963	405,373	1,333
Angola	0	0	0	0	0	0	0	359	26,939	89
Argentina	0	0	0	0	0	0	0	6,625	7,012	23
Australia	0	0	0	0	0	0	0	0	811	3
Bahama Islands	0	0	0	0	0	0	0	12,396	12,396	41
Belgium	0	0	0	0	0	0	0	7,807	7,807	26
Benin	0	0	0	0	0	0	0	0	327	1
Brazil	0	0	0	0	18	0	12	13,330	13,330	44
Brunei	0	0	0	0	0	0	0	0	568	2
Cameroon	0	0	0	0	0	0	0	1,640	3,318	11
Canada	227	116	151	0	362	1,327	139	44,146	62,896	207
China, People's Republic of	0	0	0	0	0	0	31	31	5,069	17
Colombia	0	0	0	0	0	0	0	12,495	16,448	54
Congo	0	0	0	0	0	0	0	1,315	2,197	7
Denmark	0	0	0	0	0	0	0	407	407	1
Egypt	0	0	227	0	0	0	5	1,128	8,162	27
France	0	0	18	0	0	0	0	9,652	9,652	32
Germany, DR (E)	0	0	0	0	0	0	0	560	560	2
Germany, FR (W)	0	0	0	0	0	0	55	55	55	(s)
Greece	0	0	0	0	0	0	0	2,911	2,911	10
India	0	0	0	0	0	0	0	498	498	2
Italy	0	8	0	0	0	0	26	13,571	14,240	47
Ivory Coast	0	0	0	0	0	0	0	278	278	1
Japan	0	4	14	0	0	0	13	31	31	(s)
Malaysia	0	0	0	0	0	0	0	0	843	3
Mauritania	0	0	0	0	0	0	0	40	40	(s)
Mexico	0	0	0	0	0	0	1,042	5,343	30,003	99
Netherlands	0	0	0	0	30	0	0	9,802	9,802	32
Netherlands Antilles	0	0	0	0	0	578	0	7,168	7,168	24
Norway	0	0	0	0	0	0	0	933	16,325	54
Panama	0	0	0	0	0	0	0	181	181	1
Peru	0	0	0	0	0	0	0	4,803	4,803	16
Portugal	0	28	0	0	22	0	0	1,917	1,917	6
Puerto Rico	0	0	1,853	0	2,098	0	468	9,102	9,102	30
Romania	0	0	0	0	0	0	0	5,125	5,125	17
Singapore	0	0	0	0	0	0	0	660	660	2
Spain	0	0	0	0	12	844	0	11,387	11,387	37
Sweden	0	0	0	0	0	0	0	460	460	2
Syria	0	0	0	0	0	0	0	974	974	3
Trinidad and Tobago	0	0	0	0	0	0	0	6,750	9,466	31
Tunisia	0	0	0	0	0	0	0	179	179	1
Turkey	0	0	0	0	0	0	0	517	517	2
United Kingdom	0	0	0	0	0	0	0	7,322	10,822	36
U.S.S.R.	160	0	0	0	0	0	0	4,681	4,681	15
Virgin Islands	264	0	180	0	0	0	0	78,657	78,657	252
Yemen (Sana)	0	0	0	0	0	0	0	0	998	3
Yugoslavia	0	0	0	0	0	0	0	368	368	1
Zaire	0	0	0	0	0	0	0	0	4,624	15
Other	0	0	0	0	0	0	12	2,359	2,359	8
Total	1,010	156	2,443	0	2,542	9,269	1,803	417,301	798,112	2,825

^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, pentanes plus, petroleum coke, and waxes.

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

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1990
(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			Total
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	
Arab OPEC	71,251	0	0	0	0	20	0	0	0	0	0
Algeria	3,950	0	0	0	0	0	0	0	0	0	0
Iraq	22,798	0	0	0	0	0	0	0	0	0	0
Kuwait	946	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	43,557	0	0	0	0	20	0	0	0	0	0
Other OPEC	79,889	0	0	0	0	0	0	0	0	0	0
Ecuador	2,175	0	0	0	0	0	0	0	0	0	0
Indonesia	1,680	0	0	0	0	0	0	0	0	0	0
Nigeria	37,402	0	0	0	0	0	0	0	0	0	0
Venezuela	38,632	0	0	0	0	0	0	0	0	0	0
Non OPEC	194,410	21,615	0	97	1,577	503	1,900	165	175	255	595
Cameroon	425	0	0	0	0	0	0	0	0	0	0
Canada	145,609	21,615	0	97	1,577	493	1,900	165	175	255	595
Colombia	2,007	0	0	0	0	0	0	0	0	0	0
Egypt	571	0	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Mexico	25,708	0	0	0	0	10	0	0	0	0	0
Norway	1,462	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	6,787	0	0	0	0	0	0	0	0	0	0
Turkey	499	0	0	0	0	0	0	0	0	0	0
United Kingdom	7,193	0	0	0	0	0	0	0	0	0	0
Yemen (Sana)	4,005	0	0	0	0	0	0	0	0	0	0
Zaire	144	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	345,550	21,615	0	97	1,577	523	1,900	165	175	255	595

See footnotes at end of table.

**Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1990 (Continued)
(Thousand Barrels)**

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	0	0	0	0	20	71,271	234
Algeria	0	0	0	0	0	0	0	0	3,960	13
Iraq	0	0	0	0	0	0	0	0	22,798	75
Kuwait	0	0	0	0	0	0	0	0	946	3
Saudi Arabia	0	0	0	0	0	0	0	20	43,577	143
Other OPEC	0	0	0	0	0	0	0	0	79,889	263
Ecuador	0	0	0	0	0	0	0	0	2,175	7
Indonesia	0	0	0	0	0	0	0	0	1,680	6
Nigeria	0	0	0	0	0	0	0	0	37,402	123
Venezuela	0	0	0	0	0	0	0	0	38,632	127
Non OPEC	0	509	455	0	261	162	470	28,144	222,554	732
Cameroon	0	0	0	0	0	0	0	0	425	1
Canada	0	509	437	0	261	162	450	28,096	173,705	571
Colombia	0	0	0	0	0	0	0	0	2,007	7
Egypt	0	0	0	0	0	0	0	0	571	2
Germany, FR (W)	0	0	0	0	0	0	18	18	18	(s)
Mexico	0	0	0	0	0	0	0	10	25,718	85
Norway	0	0	0	0	0	0	0	0	1,462	5
Trinidad and Tobago	0	0	0	0	0	0	0	0	6,787	22
Turkey	0	0	0	0	0	0	0	0	499	2
United Kingdom	0	0	18	0	0	0	0	18	7,211	24
Yemen (Sana)	0	0	0	0	0	0	0	0	4,005	13
Zaire	0	0	0	0	0	0	0	0	144	(s)
Other	0	0	0	0	0	0	2	2	2	(s)
Total	0	509	455	0	261	162	470	28,164	373,714	1,229

^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, pentanes plus, petroleum coke, and waxes.

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

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1990
(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			Total
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	
Arab OPEC	438,513	4,432	35,338	0	0	1,202	203	1,237	589	1,596	3,422
Algeria	14,388	3,687	8,812	0	0	0	0	1,237	354	242	1,833
Iraq	145,842	0	1,432	0	0	0	0	0	0	0	0
Kuwait	25,954	171	814	0	0	0	0	0	0	0	0
Qatar	1,293	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	248,651	574	22,930	0	0	1,202	203	0	235	679	914
United Arab Emirates	2,285	0	1,750	0	0	0	0	0	0	675	675
Other OPEC	222,005	1,189	8,031	2,529	1,558	1,379	207	358	115	327	800
Ecuador	2,892	0	0	0	0	0	0	0	0	0	0
Gabon	7,187	0	0	0	0	0	0	0	0	0	0
Indonesia	3,777	0	742	0	0	0	0	0	0	0	0
Nigeria	85,305	0	0	0	0	0	0	0	0	0	0
Venezuela	122,844	1,189	7,289	2,529	1,558	1,379	207	358	115	327	800
Non OPEC	385,011	14,665	40,014	515	3,815	3,329	30	639	1,522	2,007	4,168
Angola	45,443	0	0	0	0	0	0	0	0	0	0
Argentina	2,285	0	303	32	0	0	0	269	0	208	477
Australia	1,301	1,644	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	0	0	281	281
Belgium	0	0	1,462	0	0	0	0	0	0	0	0
Benin	865	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	4	4	570	0	0	0	0	0	0
Cameroon	2,160	0	0	0	0	0	0	0	0	0	0
Canada	2,603	1,105	3,149	0	0	0	0	0	257	0	257
China, People's Republic of	13,718	0	0	0	0	0	0	0	0	0	0
Colombia	35,629	0	481	0	0	0	0	0	0	0	0
Congo	6,744	0	0	0	0	0	0	0	0	0	0
Egypt	0	0	1,465	0	0	0	0	0	0	0	0
France	0	40	167	0	500	0	0	0	0	0	0
Germany, FR (W)	0	0	217	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	0	0	0	0
Guatemala	1,075	0	0	0	0	0	0	0	0	0	0
India	210	0	4,847	0	0	0	0	0	0	0	0
Ireland	0	0	344	0	0	0	0	0	123	0	123
Italy	0	27	3,945	118	229	0	0	0	676	0	676
Japan	0	6	0	0	0	0	0	0	0	0	0
Malaysia	6,474	0	0	0	0	0	0	0	0	0	0
Mexico	156,428	11,433	0	3	6	1,978	30	0	0	706	706
Netherlands	0	30	3,481	116	538	0	0	0	0	0	0
Netherlands Antilles	0	0	509	0	0	0	0	0	0	0	0
Norway	16,993	0	334	0	0	0	0	0	0	0	0
Oman	12,537	0	256	0	0	0	0	0	0	0	0
Portugal	0	18	0	26	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	2,332	0	278	0	0	0	219	181	400
Sweden	0	0	543	0	0	0	0	0	0	0	0
Syria	813	0	412	0	0	0	0	0	0	0	0
Trinidad and Tobago	14,206	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	438	183	0	0	0	0	0	362	362
United Kingdom	41,083	364	1,993	0	0	0	0	0	0	0	0
U.S.S.R.	297	0	7,608	0	0	0	0	370	0	0	370
Virgin Islands	0	0	4,418	33	1,472	1,351	0	0	247	0	247
Yemen (Sana)	1,990	0	671	0	0	0	0	0	0	0	0
Zaire	2,149	0	0	0	0	0	0	0	0	0	0
Other	0	0	735	0	24	0	0	0	0	269	269
Total	1,025,529	20,286	83,383	3,044	5,173	5,910	440	2,234	2,228	3,930	8,390

See footnotes at end of table.

**Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1990 (Continued)
(Thousand Barrels)**

Country of Origin	Kerosene	Special Naphtha	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	29	5,997	29,077	0	0	0	79,700	518,213	1,705
Algeria	0	29	5,738	29,077	0	0	0	48,976	63,364	208
Iraq	0	0	0	0	0	0	0	1,432	147,374	485
Kuwait	0	0	0	0	0	0	0	785	26,739	88
Qatar	0	0	0	0	0	0	0	0	1,293	4
Saudi Arabia	0	0	259	0	0	0	0	26,082	274,733	904
United Arab Emirates	0	0	0	0	0	0	0	2,425	4,710	15
Other OPEC	0	129	2,052	0	0	211	28	18,113	240,118	790
Ecuador	0	0	0	0	0	0	0	0	2,892	10
Gabon	0	0	0	0	0	0	0	0	7,187	24
Indonesia	0	0	718	0	0	0	28	1,486	5,263	17
Nigeria	0	0	0	0	0	0	0	0	85,305	281
Venezuela	0	129	1,338	0	0	211	0	16,627	139,471	459
Non OPEC	442	1,888	9,073	262	93	135	537	78,588	443,577	1,459
Angola	0	0	0	0	0	0	0	0	45,443	149
Argentina	0	177	16	0	0	0	267	1,271	3,556	12
Australia	0	0	0	0	0	0	0	1,644	2,945	10
Bahama Islands	0	0	0	0	0	0	0	281	281	1
Belgium	0	0	0	0	0	0	2	1,464	1,464	5
Benin	0	0	0	0	0	0	0	0	865	3
Brazil	0	23	0	0	0	0	0	601	601	2
Cameroon	0	0	0	0	0	0	0	0	2,160	7
Canada	0	655	240	0	0	0	0	5,406	8,009	26
China, People's Republic of	0	0	0	0	93	0	0	93	13,809	45
Colombia	0	0	0	0	0	0	5	486	36,115	119
Congo	0	0	0	0	0	0	0	0	6,744	22
Egypt	0	0	478	0	0	0	4	1,947	1,947	6
France	0	0	357	0	0	0	0	1,064	1,064	4
Germany, FR (W)	0	0	0	0	0	0	2	219	219	1
Greece	0	0	235	0	0	0	0	235	235	1
Guatemala	0	0	0	0	0	0	0	0	1,075	4
India	0	0	4,211	0	0	0	0	9,058	9,268	30
Ireland	0	0	0	0	0	0	0	467	467	2
Italy	0	0	21	262	0	0	0	5,178	5,178	17
Japan	0	0	18	0	0	0	53	77	77	(s)
Malaysia	0	0	0	0	0	0	0	0	6,474	21
Mexico	0	0	0	0	0	101	191	14,448	170,876	562
Netherlands	0	810	1,700	0	0	0	10	6,683	6,683	22
Netherlands Antilles	0	0	0	0	0	34	0	543	543	2
Norway	0	0	0	0	0	0	0	334	17,327	57
Oman	0	0	0	0	0	0	0	256	12,793	42
Portugal	0	0	0	0	0	0	0	42	42	(s)
Puerto Rico	0	0	307	0	0	0	0	307	307	1
Spain	0	0	107	0	0	0	0	3,117	3,117	10
Sweden	0	0	295	0	0	0	0	838	838	3
Syria	0	0	0	0	0	0	0	412	1,225	4
Trinidad and Tobago	0	22	0	0	0	0	0	22	14,228	47
Turkey	0	0	0	0	0	0	0	983	983	3
United Kingdom	0	1	728	0	0	0	0	3,086	44,179	145
U.S.S.R.	0	0	321	0	0	0	0	8,299	8,596	28
Virgin Islands	442	0	40	0	0	0	0	8,003	8,003	26
Yemen (Sana)	0	0	0	0	0	0	0	671	2,661	9
Zaire	0	0	0	0	0	0	0	0	2,149	7
Other	0	0	0	0	0	0	3	1,031	1,031	3
Total	442	1,846	17,122	29,339	93	346	585	176,379	1,201,908	3,954

^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, pentanes plus, petroleum coke, and waxes.

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

E = Estimated.

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

Sources: See Explanatory Notes.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a January-October 1990
(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			Total
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	
PAD District IV											
Non OPEC	22,889	1,727	5	0	417	0	593	16	0	43	59
Canada	22,374	1,727	5	0	417	0	593	16	0	43	59
United Kingdom	515	0	0	0	0	0	0	0	0	0	0
Total	22,889	1,727	5	0	417	0	593	16	0	43	59
PAD District V											
Arab OPEC	5,094	0	0	0	1,949	575	0	0	0	0	0
Iraq	1,449	0	0	0	0	0	0	0	0	0	0
Kuwait	523	0	0	0	0	35	0	0	0	0	0
Saudi Arabia	2,107	0	0	0	1,949	540	0	0	0	0	0
United Arab Emirates	1,015	0	0	0	0	0	0	0	0	0	0
Other OPEC	31,412	0	141	0	0	1,258	0	2,892	0	0	2,892
Ecuador	1,323	0	0	0	0	0	0	0	0	0	0
Indonesia	28,058	0	141	0	0	0	0	2,892	0	0	2,892
Venezuela	2,031	0	0	0	0	1,258	0	0	0	0	0
Non OPEC	38,496	1,319	748	496	2,821	793	1,448	2,622	1,623	0	4,245
Argentina	0	0	184	0	219	0	0	0	0	0	0
Australia	12,258	0	0	0	0	0	0	81	145	0	226
Belgium	0	0	0	0	0	0	0	179	277	0	456
Brazil	0	0	0	0	550	0	0	0	0	0	0
Brunei	1,895	0	0	0	0	0	0	0	0	0	0
Cameroon	341	0	0	0	0	0	0	0	0	0	0
Canada	3,556	1,319	55	0	1,280	125	1,089	0	287	0	287
China, People's Republic of	4,579	0	0	481	310	0	0	0	0	0	0
Colombia	0	0	0	0	0	0	0	0	243	0	243
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	172	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	7	0	7
Italy	0	0	0	0	220	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	15	0	0	0	0	0	0	0
Malaysia	5,793	0	0	0	0	0	0	117	0	0	117
Mexico	5,454	0	0	0	0	273	199	0	0	0	0
Netherlands	0	0	0	0	0	0	160	0	0	0	0
Netherlands Antilles	0	0	0	0	0	0	0	281	0	0	281
Oman	500	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	242	0	0	0	0	0	0
Singapore	0	0	509	0	0	3	0	1,964	570	0	2,534
Thailand	4,120	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	220	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	94	0	94
Total	75,002	1,319	889	496	4,770	2,626	1,448	5,514	1,623	0	7,137

See footnotes at end of table.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a January-October 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Crude Oil and Products	
									Total	Daily Average
PAD District IV										
Non OPEC	0	0	0	0	0	0	869	3,670	26,559	87
Canada	0	0	0	0	0	0	869	3,670	26,044	86
United Kingdom	0	0	0	0	0	0	0	0	515	2
Total	0	0	0	0	0	0	869	3,670	26,559	87
PAD District V										
Arab OPEC	0	0	0	0	0	0	0	2,524	7,618	25
Iraq	0	0	0	0	0	0	0	0	1,449	5
Kuwait	0	0	0	0	0	0	0	35	558	2
Saudi Arabia	0	0	0	0	0	0	0	2,489	4,596	15
United Arab Emirates	0	0	0	0	0	0	0	0	1,015	3
Other OPEC	0	0	0	0	0	0	0	4,291	35,703	117
Ecuador	0	0	0	0	0	0	0	0	1,323	4
Indonesia	0	0	0	0	0	0	0	3,033	31,091	102
Venezuela	0	0	0	0	0	0	0	1,258	3,289	11
Non OPEC	0	82	326	0	70	27	376	12,751	51,247	169
Argentina	0	0	0	0	0	0	0	403	403	1
Australia	0	0	0	0	0	0	0	226	12,484	41
Belgium	0	0	0	0	0	0	0	456	456	2
Brazil	0	0	0	0	0	0	0	550	550	2
Brunel	0	0	0	0	0	0	0	0	1,895	6
Cameroon	0	0	0	0	0	0	0	0	341	1
Canada	0	82	0	0	0	27	352	4,616	8,172	27
China, People's Republic of	0	0	0	0	39	0	0	830	5,409	18
Colombia	0	0	0	0	0	0	0	243	243	1
Germany, FR (W)	0	0	0	0	0	0	1	1	1	(s)
Greece	0	0	0	0	0	0	0	172	172	1
Ireland	0	0	0	0	0	0	0	7	7	(s)
Italy	0	0	0	0	0	0	0	220	220	1
Japan	0	0	50	0	31	0	0	81	81	(s)
Korea, Republic of	0	0	276	0	0	0	0	291	291	1
Malaysia	0	0	0	0	0	0	0	117	5,910	19
Mexico	0	0	0	0	0	0	23	495	5,949	20
Netherlands	0	0	0	0	0	0	0	160	160	1
Netherlands Antilles	0	0	0	0	0	0	0	281	281	1
Oman	0	0	0	0	0	0	0	0	500	2
Portugal	0	0	0	0	0	0	0	242	242	1
Singapore	0	0	0	0	0	0	0	3,046	3,046	10
Thailand	0	0	0	0	0	0	0	0	4,120	14
Trinidad and Tobago	0	0	0	0	0	0	0	220	220	1
Other	0	0	0	0	0	0	0	94	94	(s)
Total	0	82	326	0	70	27	376	19,566	66,668	311

^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, pentanes plus, petroleum coke and waxes.

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

E = Estimated.

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

Sources: See Explanatory Notes.

**Table 35. Exports of Crude Oil and Petroleum Products by PAD District,
October 1990**
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U.S. Total	Daily Average
	I	II	III	IV	V		
Crude Oil ^a	(s)	179	0	0	3,054	3,233	104
Natural Gas Liquids	54	412	395	4	337	1,203	39
Pentanes Plus	0	0	30	0	2	32	1
Liquefied Petroleum Gases	54	412	365	4	335	1,171	38
Ethane/Ethylene	2	0	0	0	(s)	3	(s)
Propane/Propylene	19	328	259	2	332	941	30
Normal Butane/Butylene	33	84	106	2	3	227	7
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	2,854	534	12,811	17	8,755	24,972	806
Finished Motor Gasoline	555	12	1,615	0	622	2,804	90
Naphtha-Type Jet Fuel	0	6	1	(s)	150	158	5
Kerosene-Type Jet Fuel	85	184	1,235	0	742	2,246	72
Kerosene	2	3	634	0	157	796	26
Distillate Fuel Oil	1,575	82	2,682	0	307	4,646	150
Residual Fuel Oil	135	(s)	1,208	0	3,604	4,947	160
Naphtha for Petrochemical Feedstock Use	7	1	92	0	8	108	3
Other Oils for Petrochemical Feedstock Use	0	0	279	0	354	632	20
Special Naphthas	8	8	626	0	358	1,000	32
Lubricants	271	48	326	5	152	803	26
Waxes	9	5	36	0	22	72	2
Petroleum Coke	192	58	4,056	8	2,255	6,569	212
Asphalt and Road Oil	5	127	3	4	14	152	5
Miscellaneous Products	11	(s)	19	(s)	9	39	1
Total	2,909	1,126	13,207	21	12,146	29,408	949

^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.

(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: See Explanatory Notes.

**Table 36. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District,
January-October 1990
(Thousand Barrels)**

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil^a	11	3,792	0	2	26,785	30,590	101
Natural Gas Liquids	897	3,138	5,112	25	2,753	11,925	39
Pentanes Plus	22	0	401	0	19	442	1
Liquefied Petroleum Gases	875	3,138	4,710	25	2,734	11,483	38
Ethane/Ethylene	19	(s)	0	0	3	23	(s)
Propane/Propylene	321	1,816	3,043	16	2,698	7,894	26
Normal Butane/Butylene	535	1,322	1,667	9	33	3,566	12
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	12,391	5,104	98,646	154	84,569	200,863	661
Finished Motor Gasoln	1,028	484	13,469	1	1,609	16,591	55
Naphtha-Type Jet Fuel	(s)	6	321	(s)	1,187	1,494	5
Kerosene-Type Jet Fuel	607	271	4,925	(s)	2,373	8,177	27
Kerosene	58	28	675	0	195	956	3
Distillate Fuel Oil	2,058	456	18,130	1	4,885	23,530	77
Residual Fuel Oil	3,371	199	15,046	0	43,225	61,841	203
Naphtha for Petrochemical Feedstock Use	204	3	1,188	0	66	1,461	5
Other Oils for Petrochemical Feedstock Use	0	0	3,987	0	2,453	6,440	21
Special Naphthas	106	143	1,793	2	1,153	3,197	11
Lubricants	1,806	426	2,822	46	974	6,074	20
Waxes	80	40	290	1	155	566	2
Petroleum Coke	2,722	2,657	37,622	98	26,018	69,117	227
Asphalt and Road Oil	253	384	50	4	130	820	3
Miscellaneous Products	98	8	329	(s)	163	598	2
Total	13,299	12,033	103,757	181	114,107	243,378	801

^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.

(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: See Explanatory Notes.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, October 1990
(Thousand Barrels)

Destination	Crude Oil ^a	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	0	0	0	0	0	0	0
Australia	0	0	0	0	0	1	(s)	0	2
Bahama Islands	0	0	0	35	12	0	101	232	0
Bahrain	0	0	0	0	0	0	1	0	0
Belgium & Luxembourg	0	8	0	(s)	0	0	(s)	0	16
Brazil	0	0	(s)	1	0	0	0	0	0
Canada	179	0	476	44	860	2	869	163	1
Chile	0	0	0	0	0	0	128	0	3
China, People's Republic of ...	0	0	0	0	0	0	0	0	0
China, Taiwan	0	0	76	502	0	0	(s)	451	2
Colombia	0	0	26	0	0	0	0	0	0
Costa Rica	0	0	(s)	0	0	0	0	0	1
Denmark	0	0	0	0	0	0	0	0	0
Dominican Republic	0	0	24	44	0	0	91	0	(s)
Ecuador	0	0	(s)	0	11	0	0	0	1
Egypt	0	0	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	1	0	0
France	0	0	1	275	0	0	682	0	(s)
French Pacific Islands	0	0	0	0	0	0	(s)	347	0
Germany, FR (W)	0	0	0	1	0	1	(s)	0	0
Greece	0	0	0	0	0	0	0	0	(s)
Guatemala	0	0	(s)	200	10	0	300	0	0
Honduras	0	0	6	0	0	0	3	0	1
Hong Kong	0	1	0	0	0	0	(s)	0	(s)
India	0	0	0	0	315	260	0	0	(s)
Indonesia	0	0	0	0	0	0	0	(s)	0
Ireland	0	0	2	0	0	0	0	0	0
Israel	0	0	0	0	0	0	2	0	0
Italy	0	0	56	0	0	(s)	302	0	0
Jamaica	0	1	(s)	0	0	0	0	391	0
Japan	0	0	2	140	346	126	209	358	36
Korea, Republic of	0	0	(s)	(s)	847	403	0	962	(s)
Malaysia	0	0	0	0	0	1	0	0	0
Mexico	0	23	460	118	1	1	28	1,188	16
Netherlands	0	0	0	1,188	0	0	535	(s)	22
Netherlands Antilles	0	0	0	0	0	0	97	0	0
New Zealand	0	1	0	0	0	0	0	0	0
Nigeria	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	91	131	0
Peru	0	0	0	0	0	0	0	0	(s)
Philippines	0	0	(s)	0	0	0	(s)	0	1
Poland	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	10	0	0	0	1	0	1
Saudi Arabia	0	0	0	0	0	0	2	0	0
Singapore	0	0	0	0	0	0	420	491	1
South Africa	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	136	152	1
Suriname	0	0	22	0	0	0	0	0	0
Sweden	0	0	0	0	0	1	0	0	0
Switzerland	0	0	2	0	0	0	0	0	0
Thailand	0	0	(s)	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	0	(s)	0	0
Turkey	0	0	0	0	0	0	0	0	1
United Arab Emirates	0	0	0	(s)	0	0	0	0	0
United Kingdom	0	0	5	0	0	0	(s)	52	0
U.S.S.R.	0	0	0	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0	0	0	0
Venezuela	0	0	1	0	0	0	393	0	1
Virgin Islands	3,054	0	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	0	0	0
Other	0	0	1	257	0	0	251	29	0
Total	3,233	32	1,171	2,804	2,402	796	4,646	4,947	108

See footnotes at end of table.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, October 1990 (Continued)
(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	0	0	5	(s)	2	(s)	(s)	8	(s)
Australia	0	(s)	17	1	420	2	(s)	443	14
Bahama Islands	0	0	1	0	0	0	(s)	382	12
Bahrain	0	0	(s)	0	58	0	0	58	2
Belgium & Luxembourg	0	0	1	(s)	752	1	(s)	777	25
Brazil	0	0	15	(s)	34	(s)	0	51	2
Canada	0	18	193	12	437	140	1	3,396	110
Chile	0	0	7	0	1	(s)	(s)	139	4
China, People's Republic of ..	0	0	(s)	(s)	0	0	(s)	1	(s)
China, Taiwan	0	(s)	59	(s)	2	1	6	1,100	35
Colombia	0	0	19	(s)	(s)	0	(s)	46	1
Costa Rica	0	1	5	(s)	0	0	(s)	8	(s)
Denmark	0	0	(s)	(s)	0	0	0	(s)	(s)
Dominican Republic	0	0	2	0	0	0	(s)	161	5
Ecuador	0	0	(s)	1	0	(s)	(s)	13	(s)
Egypt	0	0	(s)	0	0	0	0	(s)	(s)
El Salvador	0	(s)	7	0	0	0	(s)	7	(s)
Finland	0	0	1	(s)	0	0	(s)	3	(s)
France	173	(s)	1	3	181	1	(s)	1,319	43
French Pacific Islands	0	0	(s)	0	0	0	0	347	11
Germany, FR (W)	0	0	3	16	12	3	(s)	36	1
Greece	0	0	1	0	0	0	(s)	1	(s)
Guatemala	0	3	3	(s)	0	0	(s)	518	17
Honduras	0	1	1	0	0	0	(s)	13	(s)
Hong Kong	0	0	4	(s)	0	0	(s)	6	(s)
India	0	0	44	1	0	(s)	0	620	20
Indonesia	0	0	2	(s)	0	(s)	(s)	2	(s)
Ireland	0	0	(s)	(s)	0	0	0	3	(s)
Israel	0	0	1	(s)	321	0	(s)	324	10
Italy	87	0	(s)	1	1,052	(s)	0	1,500	48
Jamaica	0	0	(s)	(s)	31	0	(s)	423	14
Japan	237	286	19	4	1,057	(s)	2	2,822	91
Korea, Republic of	58	70	26	3	1	(s)	(s)	2,371	76
Malaysia	0	(s)	(s)	(s)	(s)	0	(s)	2	(s)
Mexico	0	(s)	129	22	71	(s)	3	2,060	66
Netherlands	19	2	5	1	380	(s)	14	2,164	70
Netherlands Antilles	0	0	2	0	0	0	0	100	3
New Zealand	0	0	(s)	(s)	0	0	0	1	(s)
Nigeria	0	0	(s)	(s)	0	1	2	2	(s)
Norway	0	0	2	(s)	87	0	(s)	89	3
Panama	0	0	4	0	0	0	(s)	227	7
Peru	0	0	(s)	(s)	0	0	(s)	(s)	(s)
Philippines	0	0	8	0	0	0	(s)	9	(s)
Poland	0	0	1	0	0	0	0	1	(s)
Portugal	0	0	(s)	(s)	0	0	0	(s)	(s)
Puerto Rico	0	138	15	(s)	0	0	(s)	165	5
Saudi Arabia	0	(s)	1	0	(s)	0	1	4	(s)
Singapore	0	1	40	(s)	0	(s)	3	958	31
South Africa	0	0	(s)	(s)	0	0	(s)	(s)	(s)
Spain	0	0	2	(s)	758	(s)	(s)	1,049	34
Suriname	0	0	1	0	0	0	(s)	23	1
Sweden	0	0	1	(s)	0	0	(s)	2	(s)
Switzerland	0	0	1	0	0	0	(s)	2	(s)
Thailand	59	0	2	(s)	0	0	(s)	61	2
Trinidad and Tobago	0	0	1	0	0	0	(s)	1	(s)
Turkey	0	0	(s)	0	304	0	0	305	10
United Arab Emirates	0	0	28	0	58	0	0	86	3
United Kingdom	0	480	50	1	139	1	1	729	24
U.S.S.R.	0	0	35	0	0	0	0	35	1
Uruguay	0	0	2	(s)	0	0	(s)	2	(s)
Venezuela	0	(s)	2	1	110	(s)	(s)	507	16
Virgin Islands	0	0	(s)	0	0	0	(s)	3,054	99
Yugoslavia	0	0	(s)	0	0	0	0	(s)	(s)
Other	0	(s)	32	(s)	302	1	(s)	873	28
Total	632	1,000	803	72	6,569	152	39	29,408	949

^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.

(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: See Explanatory Notes.

**Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination,
January-October 1990
(Thousand Barrels)**

Destination	Crude Oil ^a	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	(s)	0	0	0	0	0	8
Australia	0	0	3	38	0	3	716	1,579	47
Bahama Islands	0	0	43	542	371	0	2,223	4,453	(s)
Bahrain	0	0	0	0	0	0	3	0	(s)
Belgium & Luxembourg	0	132	83	1	0	2	3	1	189
Brazil	0	0	1	2	18	0	0	0	77
Cameroon	0	0	0	0	0	0	0	0	0
Canada	3,805	0	3,449	1,521	2,745	66	2,040	4,728	14
Chile	0	(s)	1	53	0	0	368	0	7
China, People's Republic of ..	0	0	0	0	0	0	2	1	3
China, Taiwan	300	1	134	502	0	8	486	7,289	26
Colombia	0	0	106	100	0	0	(s)	0	6
Costa Rica	0	0	1	474	84	0	901	0	15
Denmark	0	0	4	0	0	0	0	0	(s)
Dominican Republic	0	0	415	117	28	0	297	587	6
Ecuador	0	0	(s)	11	11	0	3	1	5
Egypt	0	0	(s)	0	0	0	0	1	(s)
El Salvador	0	0	31	307	43	0	261	0	2
Finland	0	0	76	0	0	(s)	1	0	0
France	0	0	171	743	0	0	683	0	19
French Pacific Islands	0	0	0	0	0	0	(s)	1,231	0
Germany, FR (W)	0	0	172	3	0	3	1	59	30
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	2	3	0	0	1	30	(s)
Guatemala	0	0	59	1,545	135	11	1,978	1	3
Guinea	0	0	0	0	0	0	(s)	0	(s)
Honduras	0	0	29	35	0	16	54	(s)	13
Hong Kong	0	7	(s)	0	0	0	15	278	2
India	0	0	1	0	1,033	260	202	0	20
Indonesia	0	0	0	0	0	0	0	(s)	(s)
Ireland	0	0	2	0	0	1	(s)	0	0
Israel	0	0	7	242	560	1	42	213	1
Italy	0	0	104	0	0	3	302	681	20
Jamaica	0	9	107	143	165	1	572	5,243	3
Japan	0	8	25	426	2,731	130	2,237	5,536	251
Korea, Republic of	0	2	14	1	847	403	994	11,566	111
Malaysia	0	0	(s)	0	0	1	0	80	2
Mexico	0	259	5,514	5,840	1	36	341	12,005	71
Netherlands	0	0	33	2,491	523	(s)	538	(s)	219
Netherlands Antilles	0	0	0	140	27	0	1,142	867	(s)
New Zealand	0	1	(s)	259	0	0	0	0	1
Nigeria	0	0	0	0	0	0	0	0	(s)
Norway	0	0	2	(s)	0	1	(s)	0	(s)
Panama	0	0	44	69	47	0	1,265	2,102	9
Peru	0	2	62	0	290	0	100	321	(s)
Philippines	0	0	(s)	0	0	0	(s)	1	3
Poland	0	0	0	0	0	0	88	73	0
Portugal	0	0	0	0	0	0	0	0	0
Puerto Rico	1,672	18	155	216	0	3	92	109	159
Saudi Arabia	0	0	(s)	0	0	0	4	(s)	11
Singapore	0	0	3	0	0	0	1,781	1,647	10
South Africa	0	0	0	0	0	1	(s)	0	0
Spain	0	0	0	0	0	0	1,506	371	11
Suriname	0	0	138	0	0	0	0	0	(s)
Sweden	0	0	(s)	(s)	0	2	1	(s)	1
Switzerland	0	0	45	1	0	(s)	0	0	0
Thailand	0	0	65	34	0	(s)	0	0	16
Trinidad and Tobago	0	0	1	0	(s)	0	(s)	140	0
Turkey	0	0	32	0	0	0	(s)	0	1
United Arab Emirates	0	0	0	(s)	0	0	7	0	0
United Kingdom	0	2	90	233	0	0	25	171	1
U.S.S.R.	0	0	0	0	0	0	(s)	0	0
Uruguay	0	0	0	0	0	0	187	131	0
Venezuela	0	0	147	215	0	0	1,545	334	1
Virgin Islands	24,813	0	(s)	0	0	3	2	0	0
Yugoslavia	0	0	0	0	0	0	0	0	58
Other	0	1	111	287	1	0	519	30	9
Total	30,590	442	11,483	16,591	9,671	956	23,530	61,841	1,461

See footnotes at end of table.

**Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination,
January-October 1990 (Continued)**
(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	142	(s)	86	(s)	2	(s)	(s)	238	1
Australia	128	91	97	7	2,536	2	2	5,248	17
Bahama Islands	0	0	24	0	0	10	1	7,667	25
Bahrain	0	(s)	1	0	522	0	0	526	2
Belgium & Luxembourg	0	24	103	3	5,659	12	3	6,215	20
Brazil	0	0	126	4	307	1	(s)	536	2
Cameroon	0	0	(s)	0	75	0	0	76	(s)
Canada	0	325	1,337	92	4,421	629	24	25,196	83
Chile	0	(s)	94	3	5	(s)	4	534	2
China, People's Republic of ..	0	(s)	2	1	0	(s)	(s)	10	(s)
China, Taiwan	0	1	287	13	39	3	27	9,095	30
Colombia	0	(s)	85	1	2	(s)	2	302	1
Costa Rica	0	16	84	1	0	0	1	1,578	5
Denmark	0	2	1	1	394	1	(s)	403	1
Dominican Republic	0	2	48	1	0	6	1	1,508	5
Ecuador	0	(s)	26	1	0	(s)	1	60	(s)
Egypt	0	0	10	(s)	0	(s)	(s)	12	(s)
El Salvador	0	4	22	(s)	0	0	(s)	671	2
Finland	0	0	11	(s)	334	0	2	425	1
France	1,477	(s)	19	21	1,936	19	88	5,177	17
French Pacific Islands	0	(s)	1	0	0	0	(s)	1,233	4
Germany, FR (W)	77	2	46	84	909	36	5	1,426	5
Ghana	0	0	1	0	311	0	0	312	1
Greece	0	1	7	(s)	1,386	0	59	1,489	5
Guatemala	0	16	46	2	0	0	2	3,797	12
Guinea	0	0	6	0	0	0	(s)	7	(s)
Honduras	0	8	34	(s)	0	0	(s)	189	1
Hong Kong	0	1	18	5	0	0	4	330	1
India	0	(s)	81	3	(s)	2	5	1,608	5
Indonesia	0	1	18	1	200	1	23	243	1
Ireland	0	0	9	1	0	0	(s)	13	(s)
Israel	0	4	18	(s)	867	0	1	1,956	6
Italy	488	5	12	5	11,213	5	74	12,913	42
Jamaica	0	4	16	1	91	0	3	6,358	21
Japan	846	677	370	35	13,676	15	22	26,984	89
Korea, Republic of	1,257	264	131	8	605	2	65	16,270	54
Malaysia	209	(s)	8	7	17	0	2	325	1
Mexico	6	18	1,026	128	634	29	30	25,940	85
Netherlands	584	705	67	8	6,603	8	72	11,852	39
Netherlands Antilles	0	0	250	1	7	2	(s)	2,435	8
New Zealand	0	0	13	2	384	1	(s)	660	2
Nigeria	0	0	7	(s)	0	1	3	11	(s)
Norway	0	0	6	(s)	606	0	(s)	615	2
Panama	0	4	157	(s)	0	0	1	3,696	12
Peru	0	1	100	(s)	1	(s)	(s)	877	3
Philippines	119	0	39	4	(s)	(s)	1	169	1
Poland	0	0	2	0	0	0	0	163	1
Portugal	0	0	10	(s)	0	(s)	(s)	11	(s)
Puerto Rico	0	515	184	11	0	0	11	3,146	10
Saudi Arabia	0	1	28	(s)	(s)	0	8	53	(s)
Singapore	240	2	106	2	25	8	20	3,845	13
South Africa	0	(s)	1	(s)	486	2	(s)	491	2
Spain	466	(s)	33	51	7,797	3	1	10,241	34
Suriname	0	0	4	0	0	(s)	1	144	(s)
Sweden	0	1	11	1	295	(s)	1	314	1
Switzerland	0	0	5	(s)	8	1	(s)	59	(s)
Thailand	239	(s)	29	(s)	0	0	5	389	1
Trinidad and Tobago	0	(s)	2	(s)	2	(s)	1	147	(s)
Turkey	0	0	14	(s)	2,580	0	0	2,627	9
United Arab Emirates	0	(s)	36	(s)	297	(s)	(s)	341	1
United Kingdom	160	480	193	46	1,664	9	10	3,083	10
U.S.S.R.	0	6	253	0	279	0	0	539	2
Uruguay	0	0	10	(s)	0	0	(s)	328	1
Venezuela	0	2	49	3	638	3	2	2,940	10
Virgin Islands	0	9	2	(s)	0	0	(s)	24,830	82
Yugoslavia	0	0	(s)	(s)	668	2	0	729	2
Other	0	3	154	1	637	7	5	1,772	6
Total	6,440	3,197	6,074	566	69,117	820	598	243,378	801

^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.

(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: See Explanatory Notes.

**Table 39. Net Imports of Crude Oil and Petroleum Products Into the United States by Country,
October 1990**
(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	1,488	24	51	5	(s)	25	-2	-1	193	295	1,783
Algeria	15	11	0	0	0	22	0	0	126	158	173
Saudi Arabia	1,473	13	51	5	(s)	3	(s)	(s)	67	140	1,613
United Arab Emirates	0	0	(s)	0	0	0	-2	-1	0	-3	-3
Other OPEC	1,434	(s)	35	28	64	92	-6	(s)	58	270	1,704
Ecuador	43	(s)	0	(s)	0	6	0	(s)	(s)	5	49
Gabon	50	0	0	0	0	0	0	0	0	0	50
Indonesia	88	0	0	0	0	(s)	0	(s)	(s)	(s)	88
Iran	0	0	0	0	0	0	-3	0	0	-3	-3
Nigeria	536	0	0	0	0	21	0	(s)	(s)	21	557
Venezuela	717	(s)	35	28	64	65	-4	(s)	58	246	963
Non OPEC	2,106	94	15	-46	-24	104	-203	-14	233	160	2,266
Angola	139	0	0	0	0	0	0	(s)	0	(s)	139
Argentina	11	0	0	0	9	16	(s)	(s)	3	28	39
Australia	31	0	0	0	(s)	0	-14	-1	(s)	-14	16
Bahama Islands	0	0	-1	(s)	-3	2	0	(s)	(s)	-3	-3
Belgium & Luxembourg	0	0	(s)	0	(s)	15	-24	(s)	13	3	3
Brazil	0	(s)	(s)	0	0	12	-1	(s)	(s)	10	10
Cameroon	0	0	0	0	0	12	0	0	0	12	12
Canada	631	99	44	-20	10	35	-13	-3	18	170	800
China, People's Republic of	85	0	0	0	0	0	0	(s)	(s)	(s)	85
China, Taiwan	0	-2	-16	0	(s)	-15	(s)	-2	(s)	-35	-35
Colombia	159	-1	0	0	0	23	(s)	-1	(s)	22	181
Congo	0	0	0	0	0	11	0	0	0	11	11
Egypt	23	0	0	0	0	0	0	(s)	0	(s)	23
France	0	(s)	-9	0	-22	0	-6	(s)	-6	-43	-43
Greece	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Guatemala	7	(s)	-6	(s)	-10	0	0	(s)	(s)	-17	-10
India	0	0	0	-10	0	0	0	-1	19	7	7
Italy	0	-2	0	0	-10	5	-34	(s)	13	-28	-28
Jamaica	0	(s)	0	0	0	-13	-1	(s)	(s)	-14	-14
Japan	0	(s)	-5	-11	-7	-12	-34	-1	-22	-91	-91
Korea, Republic of	0	(s)	(s)	-27	0	-31	(s)	-1	-16	-76	-76
Malaysia	78	0	0	0	0	0	(s)	(s)	(s)	(s)	78
Mexico	793	3	-4	(s)	-1	-29	-2	-4	5	-32	761
Netherlands	0	0	-38	0	-12	(s)	-12	(s)	30	-33	-33
Netherlands Antilles	0	0	16	0	-3	27	0	(s)	0	40	40
Norway	67	0	0	0	0	0	-3	(s)	(s)	-3	64
Oman	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Panama	0	0	0	0	-3	-4	0	(s)	(s)	-7	-7
Peru	0	0	0	0	0	9	0	(s)	(s)	9	9
Puerto Rico	0	(s)	0	12	(s)	0	0	8	5	24	24
Spain	0	0	0	0	-4	-5	-24	(s)	21	-13	-13
Sweden	0	0	0	0	0	0	0	(s)	6	6	6
Syria	19	0	0	0	0	0	0	0	0	0	19
Thailand	0	(s)	0	0	0	0	0	(s)	-2	-2	-2
Trinidad and Tobago	76	0	0	0	7	0	0	(s)	(s)	7	83
Turkey	0	0	0	0	0	0	-10	(s)	(s)	-10	-10
United Kingdom	44	(s)	0	0	(s)	13	-4	-2	7	14	58
U.S.S.R.	10	0	0	0	0	0	0	-1	77	76	85
Virgin Islands	-99	0	44	12	54	4	0	(s)	53	204	105
Zaire	31	0	0	0	0	0	0	(s)	0	(s)	31
Other	0	-2	-10	0	-29	-7	-20	-4	10	-61	-61
Total	5,027	118	101	-13	40	221	-211	-15	484	725	5,752

^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 oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.
(s) = Less than 500 barrels per day.

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

Sources: See Explanatory Notes.

Table 40. Year-to-Date Net Imports of Crude Oil and Petroleum Products Into the United States by Country, January-October 1990
(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	1,931	32	35	14	20	39	-1	(s)	247	386	2,317
Algeria	62	28	0	0	15	31	0	(s)	158	231	292
Iraq	611	0	0	0	1	0	0	(s)	5	5	617
Kuwait	95	1	0	(s)	1	0	0	(s)	2	4	99
Qatar	4	(s)	0	0	(s)	0	(s)	(s)	(s)	(s)	4
Saudi Arabia	1,148	5	35	14	3	6	(s)	(s)	77	140	1,288
United Arab Emirates	11	0	(s)	0	(s)	2	-1	(s)	6	7	18
Other OPEC	1,719	3	73	35	109	92	-3	(s)	68	377	2,096
Ecuador	43	(s)	(s)	(s)	(s)	10	0	(s)	(s)	10	53
Gabon	67	0	0	0	0	(s)	0	(s)	0	(s)	67
Indonesia	110	0	0	0	0	10	-1	(s)	5	14	124
Iran	0	0	0	0	0	0	-1	(s)	0	-1	-1
Nigeria	836	0	1	0	0	13	0	(s)	(s)	13	850
Venezuela	662	3	73	36	108	60	-2	(s)	62	340	1,003
Non OPEC	2,334	109	181	25	78	183	-221	-10	314	658	2,993
Angola	237	0	0	0	0	1	0	(s)	(s)	1	238
Argentina	9	(s)	3	0	5	10	1	(s)	7	27	35
Australia	47	5	(s)	0	-2	-4	-8	(s)	-1	-11	36
Bahama Islands	0	(s)	-2	-1	-7	26	0	(s)	(s)	16	16
Belgium & Luxembourg	0	(s)	6	0	(s)	4	-19	(s)	21	12	12
Brazil	0	(s)	19	(s)	0	28	-1	(s)	(s)	46	46
Brunei	8	0	0	0	0	0	0	(s)	0	(s)	8
Cameroon	15	0	0	0	0	5	(s)	(s)	0	5	20
Canada	622	89	47	1	45	17	-13	-2	28	212	834
China, People's Republic of	77	0	1	0	(s)	(s)	0	(s)	2	3	80
China, Taiwan	-1	(s)	-2	0	-2	-24	(s)	-1	(s)	-29	-30
Colombia	137	(s)	(s)	0	1	41	(s)	(s)	2	43	179
Comoros	25	0	0	0	0	4	0	(s)	(s)	4	29
Egypt	25	(s)	0	0	0	1	0	(s)	10	10	35
France	0	(s)	18	1	(s)	8	-6	(s)	-2	18	18
Greece	0	(s)	3	2	3	2	-5	(s)	1	6	6
Guatemala	4	(s)	-5	(s)	-7	(s)	0	(s)	(s)	-12	-9
India	1	(s)	0	-3	-1	0	(s)	(s)	30	26	27
Italy	2	(s)	27	1	(s)	6	-37	(s)	23	20	22
Jamaica	0	(s)	(s)	-1	-2	-17	(s)	(s)	(s)	-20	-20
Japan	0	(s)	-1	-9	-7	-18	-45	-1	-6	-88	-88
Korea, Republic of	0	(s)	(s)	-3	-3	-38	-2	(s)	-6	-53	-53
Malaysia	43	(s)	0	0	0	(s)	(s)	(s)	-1	-1	42
Mexico	698	19	-19	9	8	-34	-2	-3	4	-19	680
Netherlands	0	(s)	5	(s)	1	5	-22	(s)	27	16	16
Netherlands Antilles	0	0	3	(s)	-4	17	(s)	-1	4	18	18
Norway	111	(s)	2	0	1	0	-2	(s)	1	2	113
Oman	43	0	0	0	0	0	0	(s)	1	1	44
Panama	0	(s)	(s)	(s)	-4	-6	0	-1	(s)	-12	-12
Peru	0	(s)	0	-1	(s)	15	(s)	(s)	(s)	13	13
Puerto Rico	-6	-1	-1	1	(s)	(s)	0	6	20	26	21
Romania	0	0	3	1	2	0	0	0	11	17	17
Spain	0	0	22	3	-5	5	-26	(s)	16	14	14
Sweden	0	(s)	(s)	0	(s)	2	-1	(s)	3	3	3
Syria	3	0	0	0	(s)	3	0	(s)	1	5	7
Thailand	14	(s)	(s)	0	0	0	0	(s)	-1	-1	12
Trinidad and Tobago	78	(s)	1	1	2	19	(s)	(s)	(s)	23	101
Turkey	2	(s)	0	0	(s)	1	-8	(s)	3	-4	-2
United Kingdom	172	2	8	(s)	3	7	-5	-1	10	24	196
U.S.S.R.	1	0	(s)	0	6	10	-1	-1	27	41	42
Virgin Islands	-82	(s)	45	26	58	77	0	(s)	72	278	197
Yemen (Sana)	23	0	0	0	0	0	0	(s)	2	2	25
Zaire	23	0	0	0	(s)	0	0	(s)	(s)	(s)	23
Other	4	-3	-2	-2	-12	10	-18	-2	5	-25	-21
Total	5,984	144	289	74	207	314	-225	-10	629	1,422	7,406

^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 oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

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

Sources: See Explanatory Notes.

**Table 41. Stocks of Crude Oil and Petroleum Products by PAD District,
October 1990**
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Crude Oil	14,832	89,366	759,230	11,557	80,808	935,793
Refinery	13,565	12,611	48,532	1,834	25,603	102,145
Tank Farms and Pipelines	1,244	55,450	105,605	8,759	34,462	205,520
Leases	23	1,305	15,734	964	1,325	19,351
Strategic Petroleum Reserve ^a	0	0	589,359	0	0	589,359
Alaskan In Transit	0	0	0	0	19,418	19,418
Total Stocks, All Oils (excluding Crude Oil)	192,092	166,200	273,042	15,175	96,398	742,907
Refinery	45,728	58,317	145,479	9,912	62,176	321,612
Bulk Terminal	118,961	71,793	78,765	2,838	28,528	300,883
Pipeline	27,129	33,894	41,920	2,222	5,534	110,699
Natural Gas Processing Plant	274	2,196	6,878	203	162	9,713
Pentanes Plus	133	2,227	4,559	142	105	7,166
Refinery	14	301	559	2	21	897
Bulk Terminal	61	1,176	1,843	0	22	3,102
Pipeline	0	494	883	70	46	1,493
Natural Gas Processing Plant	58	256	1,274	70	16	1,674
Liquefied Petroleum Gases	5,935	35,522	89,380	1,187	5,024	117,048
Refinery	1,674	3,814	11,128	517	1,424	18,557
Bulk Terminal	2,207	22,227	48,128	95	3,454	74,111
Pipeline	1,838	7,541	6,520	442	0	16,341
Natural Gas Processing Plant	216	1,940	5,604	133	146	8,039
Ethane/Ethylene	9	5,765	12,491	170	0	18,435
Refinery	7	1	839	0	0	847
Bulk Terminal	2	3,835	8,046	0	0	11,883
Pipeline	0	1,344	2,567	161	0	4,072
Natural Gas Processing Plant	0	585	1,039	9	0	1,633
Propane/Propylene	4,330	18,558	29,459	474	1,277	54,098
Refinery	1,057	1,893	4,029	157	83	7,219
Bulk Terminal	1,407	12,209	21,164	94	1,058	35,932
Pipeline	1,708	3,667	2,679	147	0	8,201
Natural Gas Processing Plant	158	789	1,587	76	136	2,746
Normal Butane/Butylene	1,514	8,591	19,392	392	3,380	33,269
Refinery	540	1,492	4,244	264	1,088	7,628
Bulk Terminal	789	4,725	12,355	1	2,286	20,156
Pipeline	130	1,985	755	88	0	2,958
Natural Gas Processing Plant	55	389	2,038	39	6	2,527
Isobutane	82	2,608	8,038	151	367	11,246
Refinery	70	428	2,016	96	253	2,863
Bulk Terminal	9	1,458	4,563	0	110	6,140
Pipeline	0	545	519	46	0	1,110
Natural Gas Processing Plant	3	177	940	9	4	1,133
Other Hydrocarbons/Alcohol	199	247	570	191	236	1,445
Refinery	199	247	570	191	238	1,445
Unfinished Oils	13,278	15,906	48,312	2,029	24,250	103,775
Refinery						
Naphtha and Lighter	3,516	4,620	12,779	422	3,849	25,186
Kerosene and Light Gas Oils	2,560	1,588	9,671	379	3,888	18,086
Heavy Gas Oils	6,125	6,011	17,024	824	12,030	42,014
Residuum	1,077	3,687	8,838	404	4,483	18,489
Motor Gasoline Blending Components	5,145	8,103	17,799	2,068	7,387	40,502
Refinery	5,081	7,288	16,510	1,999	7,351	38,229
Bulk Terminal	64	605	1,263	69	9	2,010
Pipeline	0	210	26	0	27	263

See footnotes at end of table.

**Table 41. Stocks of Crude Oil and Petroleum Products by PAD District,
October 1990 (Continued)**
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Aviation Gasoline Blending Components	0	125	45	0	0	170
Refinery	0	125	45	0	0	170
Finished Motor Gasoline	53,874	50,112	48,884	4,481	24,829	182,180
Refinery	7,850	10,647	18,643	1,819	9,081	48,020
Bulk Terminal	32,268	24,924	11,447	1,667	12,937	83,243
Pipeline	13,756	14,541	18,794	995	2,831	50,917
Finished Leaded Motor Gasoline	115	2,595	891	1,335	5,664	10,600
Refinery	19	552	365	572	2,079	3,587
Bulk Terminal	96	1,099	269	507	3,255	5,226
Pipeline	0	944	257	256	330	1,787
Finished Unleaded Motor Gasoline	53,759	47,517	47,993	3,146	19,165	171,580
Refinery	7,831	10,095	18,278	1,247	6,982	44,433
Bulk Terminal	32,172	23,825	11,178	1,160	9,682	78,017
Pipeline	13,756	13,597	18,537	739	2,501	49,130
Finished Aviation Gasoline	214	568	491	41	382	1,696
Refinery	26	128	432	27	143	754
Bulk Terminal	188	412	59	14	239	912
Pipeline	0	30	0	0	0	30
Naphtha-Type Jet Fuel	714	929	2,263	381	1,896	6,183
Refinery	296	374	1,577	195	745	3,187
Bulk Terminal	372	203	158	0	631	1,444
Pipeline	46	272	528	186	520	1,552
Kerosene-Type Jet Fuel	11,978	8,805	18,130	712	7,715	45,140
Refinery	2,046	1,972	7,809	320	4,226	16,373
Bulk Terminal	5,410	4,087	1,987	237	2,824	14,345
Pipeline	4,522	2,546	6,334	155	865	14,422
Kerosene	2,692	1,730	1,935	33	105	6,495
Refinery	286	860	1,029	17	56	2,248
Bulk Terminal	2,255	608	710	16	28	3,617
Pipeline	151	262	196	0	21	630
Distillate Fuel Oil	65,399	28,785	29,545	2,501	10,802	136,812
Refinery	9,033	7,708	14,642	1,431	4,732	37,546
Bulk Terminal	49,550	13,167	6,286	696	4,791	74,490
Pipeline	6,816	7,890	8,617	374	1,079	24,776
Residual Fuel Oil ^b	22,478	3,695	15,235	475	7,657	49,540
Refinery	2,384	2,522	8,225	475	5,325	18,931
Bulk Terminal	20,094	1,173	7,010	0	2,213	30,490
Pipeline	0	0	0	0	119	119
Less than 0.31% Sulfur	6,222	240	1,888	64	690	9,102
Refinery	768	14	1,859	64	688	3,393
Bulk Terminal	5,454	226	27	0	2	5,709
0.31 to 1.00% Sulfur	8,257	891	3,759	213	1,037	14,157
Refinery	765	465	1,338	213	718	3,499
Bulk Terminal	7,492	426	2,421	0	319	10,658
Greater than 1.00% Sulfur	7,999	2,564	9,590	198	5,811	26,162
Refinery	851	2,043	5,028	198	3,919	12,039
Bulk Terminal	7,148	521	4,562	0	1,892	14,123
Naphtha for Petrochemical Feedstock Use	152	268	970	0	98	1,488
Refinery	152	268	970	0	98	1,488

See footnotes at end of table.

**Table 41. Stocks of Crude Oil and Petroleum Products by PAD District,
October 1990 (Continued)**
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Other Oils for Petrochemical Feedstock Use	2	333	2,218	2	153	2,708
Refinery	2	333	2,218	2	153	2,708
Special Naphthas	627	430	1,373	6	129	2,565
Refinery	95	202	1,295	8	80	1,878
Bulk Terminal	532	228	78	0	49	887
Lubricants	2,628	1,485	4,906	39	1,817	10,875
Refinery	582	632	4,279	33	883	6,409
Bulk Terminal	2,046	853	627	6	934	4,468
Waxes	74	129	431	187	125	946
Refinery	74	129	431	187	125	946
Petroleum Coke	704	1,494	3,190	8	1,752	7,148
Refinery	704	1,494	3,190	8	1,752	7,148
Asphalt and Road Oil	5,191	5,142	3,458	667	1,933	16,391
Refinery	1,791	3,119	2,870	630	1,409	9,619
Bulk Terminal	3,400	2,023	788	37	524	6,772
Miscellaneous Products	675	385	1,348	25	201	2,634
Refinery	161	250	945	24	104	1,484
Bulk Terminal	514	27	381	1	71	994
Pipeline	0	108	22	0	26	156
Total Stocks, All Oils	206,924	235,566	1,032,272	26,732	177,208	1,678,700

^a Includes 38,395 thousand barrels of domestic crude oil.

^b Sulfur content not available for stocks held by pipelines.

Note: Stocks are reported as of the last day of the month.

Sources: See Explanatory Notes.

Table 42. Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by State, October 1990
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel	Propane/Propylene
PAD District I	115	40,003	2,541	58,583	22,478	2,622
Connecticut	0	1,248	88	3,460	318	W
Delaware, D.C., Maryland	30	2,267	88	5,422	3,828	W
Florida	0	5,850	192	2,149	585	217
Georgia	3	2,897	72	1,302	209	W
Maine, New Hampshire, Vermont	0	1,112	318	2,812	816	W
Massachusetts	0	1,908	137	2,699	1,204	W
New Jersey	1	7,260	49	18,598	8,512	W
New York	23	3,894	429	10,581	5,190	W
North Carolina	18	3,045	184	1,975	131	W
Pennsylvania	4	4,988	527	5,487	857	W
Rhode Island	0	848	W	1,728	W	W
South Carolina	0	1,755	143	1,030	W	W
Virginia	17	2,938	211	3,255	589	W
West Virginia	19	219	W	117	W	W
PAD District II	1,851	33,920	1,468	20,875	3,695	14,891
Illinois	215	6,734	301	3,455	1,749	1,330
Indiana	229	4,251	91	2,427	502	W
Iowa	118	1,398	W	958	W	W
Kansas, Nebraska	381	2,340	49	1,999	50	8,438
Kentucky	10	1,700	73	745	W	W
Michigan	87	3,541	118	1,881	108	1,917
Minnesota	190	1,623	W	1,700	201	W
Missouri	144	1,448	W	878	W	W
North Dakota, South Dakota	54	878	W	789	W	W
Ohio	5	4,458	441	1,973	308	W
Oklahoma	205	1,581	W	1,343	253	1,066
Tennessee	0	2,243	57	985	239	W
Wisconsin	33	1,925	W	1,804	50	W
PAD District III	634	29,458	1,739	20,928	15,235	26,780
Alabama	0	1,582	50	772	493	145
Arkansas	39	580	W	253	W	W
Louisiana	12	5,702	586	4,382	6,108	3,298
Mississippi	22	2,257	8	2,040	W	3,579
New Mexico	112	358	W	195	33	W
Texas	449	18,977	1,102	13,306	8,464	19,844
PAD District IV	1,079	2,407	33	2,127	475	327
Colorado	273	741	W	378	W	W
Idaho	140	250	W	184	W	W
Montana	326	625	W	715	65	18
Utah	148	305	W	329	151	195
Wyoming	192	486	W	541	W	46
PAD District V	5,334	18,864	84	9,523	7,539	1,277
Alaska	201	538	W	817	W	W
Arizona	358	694	W	236	W	W
California	2,830	11,407	58	5,577	4,032	232
Hawaii	40	857	W	244	W	W
Nevada	98	298	W	139	W	W
Oregon	592	991	W	990	141	W
Washington	1,215	2,079	W	1,520	1,306	15
U.S. Total	8,813	122,450	5,865	112,036	49,421	45,897

W = Withheld to avoid disclosure of individual company data.

Notes: • Stocks are reported as of the last day of the month. • Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 43. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, October 1990
(Thousand Barrels)

Commodity	From I to			From II to				From III to	
	II	III	V	I	III	IV	V	I	II
Crude Oil	72	0	0	48	2,154	480	0	582	48,211
Petroleum Products	7,211	502	0	4,480	5,748	1,892	0	82,521	24,097
Pentanes Plus	0	0	0	0	92	0	0	0	831
Liquefied Petroleum Gases	0	0	0	1,160	2,347	93	0	2,389	4,894
Unfinished Oils	0	0	0	0	0	0	0	221	254
Motor Gasoline Blending Components	0	192	0	108	0	0	0	185	180
Finished Motor Gasoline	4,740	0	0	1,912	1,842	794	0	47,733	9,721
Leaded	0	0	0	0	45	6	0	10	10
Unleaded	4,740	0	0	1,912	1,797	788	0	47,723	9,711
Finished Aviation Gasoline	0	0	0	0	0	12	0	82	171
Jet Fuel	314	0	0	257	337	549	0	10,781	2,650
Naphtha-Type	0	0	0	0	58	0	0	553	38
Kerosene-Type	314	0	0	257	279	549	0	10,228	2,612
Kerosene	38	0	0	41	0	0	0	548	32
Distillate Fuel Oil	2,024	63	0	616	573	244	0	19,093	4,730
Residual Fuel Oil	0	0	0	79	548	0	0	310	0
Petrochemical Feedstocks ^a	95	29	0	0	0	0	0	0	9
Special Naphthas	0	3	0	0	0	0	0	229	10
Lubricants	0	128	0	141	0	0	0	574	321
Waxes	0	0	0	0	0	0	0	48	43
Asphalt and Road Oil	0	64	0	168	0	0	0	228	451
Miscellaneous Products	0	23	0	0	9	0	0	152	0
Total	7,283	502	0	4,528	7,902	2,172	0	83,103	72,308

Commodity	From III to		From IV to			From V to			
	IV	V	II	III	V	I	II	III	IV
Crude Oil	0	0	2,308	1,371	0	0	0	9,392	0
Petroleum Products	0	1,783	1,405	1,585	1,129	0	0	49	0
Pentanes Plus	0	0	85	236	0	0	0	0	0
Liquefied Petroleum Gases	0	0	608	1,349	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	0	957	388	0	728	0	0	0	0
Leaded	0	138	85	0	283	0	0	0	0
Unleaded	0	819	303	0	465	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	0	426	60	0	207	0	0	0	0
Naphtha-Type	0	184	55	0	120	0	0	0	0
Kerosene-Type	0	242	5	0	87	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	327	264	0	194	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	73	0	0	0	0	0	49	0
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	0	1,783	3,711	2,958	1,129	0	0	9,441	0

^a Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

**Table 44. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts,
October 1990**
(Thousand Barrels)

Commodity	From I to		From II to			From III to	
	II	III	I	III	IV	I	II
Crude Oil	72	0	12	2,154	480	0	48,211
Petroleum Products	7,093	0	2,449	5,175	1,892	67,336	20,231
Pentanes Plus	0	0	0	92	0	0	631
Liquefied Petroleum Gases	0	0	1,160	2,322	93	2,179	4,894
Motor Gasoline Blending Components	0	0	106	0	0	0	0
Finished Motor Gasoline	4,717	0	845	1,842	794	38,947	8,307
Leaded	0	0	0	45	6	10	10
Unleaded	4,717	0	845	1,797	788	38,937	8,297
Finished Aviation Gasoline	0	0	0	0	12	13	132
Jet Fuel	314	0	154	337	549	8,895	2,414
Naphtha-Type	0	0	0	58	0	121	38
Kerosene-Type	314	0	154	279	549	8,774	2,376
Kerosene	38	0	19	0	0	521	0
Distillate Fuel Oil	2,024	0	165	573	244	16,781	3,853
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	9	0	0	0
Total	7,165	0	2,461	7,329	2,172	67,336	68,442

Commodity	From III to		From IV to			From V to	
	IV	V	II	III	V	III	IV
Crude Oil	0	0	2,306	1,371	0	3,178	0
Petroleum Products	0	1,710	1,405	1,585	1,129	0	0
Pentanes Plus	0	0	85	236	0	0	0
Liquefied Petroleum Gases	0	0	608	1,349	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	0	957	388	0	728	0	0
Leaded	0	138	85	0	263	0	0
Unleaded	0	819	303	0	465	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0
Jet Fuel	0	426	60	0	207	0	0
Naphtha-Type	0	184	55	0	120	0	0
Kerosene-Type	0	242	5	0	87	0	0
Kerosene	0	0	0	0	0	0	0
Distillate Fuel Oil	0	327	264	0	194	0	0
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	0	1,710	3,711	2,956	1,129	3,178	0

Sources. See Explanatory Notes.

**Table 45. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts,
October 1990
(Thousand Barrels)**

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil	0	0	0	34	0	0	582	0
Petroleum Products	118	502	0	2,031	573	0	15,185	361
Liquefied Petroleum Gases	0	0	0	0	25	0	210	0
Unfinished Oils	0	0	0	0	0	0	221	0
Motor Gasoline Blending Components	0	192	0	0	0	0	185	0
Finished Motor Gasoline	23	0	0	1,067	0	0	8,786	0
Leaded	0	0	0	0	0	0	0	0
Unleaded	23	0	0	1,067	0	0	8,786	0
Finished Aviation Gasoline	0	0	0	0	0	0	69	15
Jet Fuel	0	0	0	103	0	0	1,886	89
Naphtha-Type	0	0	0	0	0	0	432	0
Kerosene-Type	0	0	0	103	0	0	1,454	89
Kerosene	0	0	0	22	0	0	27	0
Distillate Fuel Oil	0	63	0	451	0	0	2,312	242
Residual Fuel Oil	0	0	0	79	548	0	310	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	0	0	79	548	0	310	0
Petrochemical Feedstocks ^a	95	29	0	0	0	0	0	0
Special Naphthas	0	3	0	0	0	0	229	15
Lubricants	0	128	0	141	0	0	524	0
Waxes	0	0	0	0	0	0	46	0
Asphalt and Road Oil	0	64	0	168	0	0	228	0
Miscellaneous Products	0	23	0	0	0	0	152	0
Total	118	502	0	2,065	573	0	15,767	361

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	582	0	0	0	0	0	6,214
Petroleum Products	1,480	13,344	3,866	73	0	0	49
Liquefied Petroleum Gases	0	210	0	0	0	0	0
Unfinished Oils	59	162	254	0	0	0	0
Motor Gasoline Blending Components	118	67	180	0	0	0	0
Finished Motor Gasoline	0	8,786	1,414	0	0	0	0
Leaded	0	0	0	0	0	0	0
Unleaded	0	8,786	1,414	0	0	0	0
Finished Aviation Gasoline	54	0	39	0	0	0	0
Jet Fuel	349	1,448	236	0	0	0	0
Naphtha-Type	300	132	0	0	0	0	0
Kerosene-Type	49	1,316	236	0	0	0	0
Kerosene	0	27	32	0	0	0	0
Distillate Fuel Oil	189	1,881	877	0	0	0	0
Residual Fuel Oil	0	310	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	310	0	0	0	0	0
Petrochemical Feedstocks ^a	0	0	9	0	0	0	0
Special Naphthas	130	84	10	0	0	0	0
Lubricants	376	148	321	73	0	0	49
Waxes	46	0	43	0	0	0	0
Asphalt and Road Oil	7	221	451	0	0	0	0
Miscellaneous Products	152	0	0	0	0	0	0
Total	2,062	13,344	3,866	73	0	0	6,263

^a Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

Table 46. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, October 1990
(Thousand Barrels)

Commodity	PAD District I			PAD District II		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	628	72	556	50,589	2,680	47,909
Petroleum Products	87,001	7,713	79,288	32,713	11,920	20,793
Pentanes Plus	0	0	0	716	92	624
Liquefied Petroleum Gases	3,549	0	3,549	5,502	3,600	1,902
Ethane/Ethylene	0	0	0	328	1,393	-1,065
Propane/Propylene	3,549	0	3,549	3,166	1,973	1,193
Normal Butane/Butylene	0	0	0	1,053	160	893
Isobutane	0	0	0	955	74	881
Unfinished Oils	221	0	221	254	0	254
Motor Gasoline Blending Components	291	192	99	180	106	74
Finished Motor Gasoline	49,645	4,740	44,905	14,849	4,548	10,301
Leaded	10	0	10	95	51	44
Unleaded	49,635	4,740	44,895	14,754	4,497	10,257
Finished Aviation Gasoline	82	0	82	171	12	159
Jet Fuel	11,038	314	10,724	3,024	1,143	1,881
Naphtha-Type	553	0	553	93	58	35
Kerosene-Type	10,485	314	10,171	2,931	1,085	1,846
Kerosene	589	38	551	70	41	29
Distillate Fuel Oil	19,709	2,087	17,622	7,018	1,433	5,585
Residual Fuel Oil	389	0	389	0	627	-627
Petrochemical Feedstocks ^a	0	124	-124	104	0	104
Special Naphthas	229	3	226	10	0	10
Lubricants	665	128	537	321	141	180
Waxes	48	0	48	43	0	43
Asphalt and Road Oil	396	64	332	451	168	283
Miscellaneous Products	152	23	129	0	9	-9
Total	87,629	7,785	79,844	83,302	14,600	68,702

Commodity	PAD District III			PAD District IV			PAD District V		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	12,917	48,793	-35,876	480	3,677	-3,197	0	9,392	-9,392
Petroleum Products	7,884	108,401	-100,517	1,692	4,119	-2,427	2,912	49	2,863
Pentanes Plus	328	631	-303	0	321	-321	0	0	0
Liquefied Petroleum Gases	3,696	7,283	-3,587	93	1,957	-1,864	0	0	0
Ethane/Ethylene	2,031	136	1,895	0	830	-830	0	0	0
Propane/Propylene	1,126	5,415	-4,289	92	545	-453	0	0	0
Normal Butane/Butylene	335	868	-533	1	361	-360	0	0	0
Isobutane	204	864	-660	0	221	-221	0	0	0
Unfinished Oils	0	475	-475	0	0	0	0	0	0
Motor Gasoline Blending Components	192	385	-173	0	0	0	0	0	0
Finished Motor Gasoline	1,842	58,411	-56,569	794	1,116	-322	1,685	0	1,685
Leaded	45	158	-113	6	348	-342	401	0	401
Unleaded	1,797	58,253	-56,456	788	768	20	1,284	0	1,284
Finished Aviation Gasoline	0	253	-253	12	0	12	0	0	0
Jet Fuel	337	13,857	-13,520	549	267	282	633	0	633
Naphtha-Type	58	775	-717	0	175	-175	304	0	304
Kerosene-Type	279	13,082	-12,803	549	92	457	329	0	329
Kerosene	0	580	-580	0	0	0	0	0	0
Distillate Fuel Oil	636	24,150	-23,514	244	458	-214	521	0	521
Residual Fuel Oil	548	310	238	0	0	0	0	0	0
Petrochemical Feedstocks ^a	29	9	20	0	0	0	0	0	0
Special Naphthas	3	239	-236	0	0	0	0	0	0
Lubricants	177	918	-741	0	0	0	73	49	24
Waxes	0	89	-89	0	0	0	0	0	0
Asphalt and Road Oil	64	679	-615	0	0	0	0	0	0
Miscellaneous Products	32	152	-120	0	0	0	0	0	0
Total	20,301	157,194	-136,393	2,172	7,796	-5,624	2,912	9,441	-6,529

^a Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

Appendix A

District Descriptions and Maps

Tank trucks are used to pick up crude oil gathered at leases in remote areas.

Appendix A

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

Note 1. Overview

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

- Note 2. Petroleum Supply Reporting System
- Note 3. Monthly Petroleum Supply Reporting System
- Note 4. Preliminary Monthly Statistics Derivation
- Note 5. Summary Statistics Table Sources
- Note 6. Summary Statistics Figure Sources
- Note 7. Detailed Statistics Table Sources
- Note 8. Domestic Crude Oil Production
- Note 9. Export Data Source
- Note 10. Quality Control and Data Revision
- Note 11. Frames Maintenance
- Note 12. 1981 Changes in the Petroleum Supply Reporting System
- Note 13. 1984 Changes in the Petroleum Supply Reporting System
- Note 14. 1985 Changes in the Petroleum Supply Reporting System
- Note 15. 1986 Changes in the Petroleum Supply Reporting System
- Note 16. 1987 Changes in the Petroleum Supply Reporting System
- Note 17. 1989 Changes in the Petroleum Supply Reporting System

Note 2. 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	<i>Weekly Refinery Report</i>
EIA-801	<i>Weekly Bulk Terminal Report</i>
EIA-802	<i>Weekly Product Pipeline Report</i>
EIA-803	<i>Weekly Crude Oil Stocks Report</i>
EIA-804	<i>Weekly Imports Report</i>
EIA-810	<i>Monthly Refinery Report</i>
EIA-811	<i>Monthly Bulk Terminal Report</i>
EIA-812	<i>Monthly Product Pipeline Report</i>
EIA-813	<i>Monthly Crude Oil Report</i>
EIA-814	<i>Monthly Imports Report</i>
EIA-816	<i>Monthly Natural Gas Liquids Report</i>
EIA-817	<i>Monthly Tanker and Barge Movement Report</i>
EIA-820	<i>Annual Refinery Report</i>

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 which appear in the Summary Statistics section of the *Petroleum Supply Monthly* (PSM) and are published in the *Weekly Petroleum Status Report*.

Forms EIA-810 through 814, 816 and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense Districts. A description of the MPSRS forms follow in Explanatory Note 3.

Data from these surveys are published in preliminary form in the PSM. They are published in final form in the Summary Statistics and the Detailed Statistics sections of the *Petroleum Supply Annual* (PSA), Volumes 1 and 2.

Summary information on the revision error between preliminary and final data is found in the feature article in the *PSM* entitled, "Timeliness and Accuracy of Petroleum Supply Data." The last article was published in the July 1989 issue and dealt with the years 1984-1988. Subsequent updates to this article will be published in the April issues of this publication.

The Form EIA-820, *Annual Refinery Report*, collects data on refinery fuel use and consumption of steam and electricity, refinery receipts of crude oil by method of transportation, and refinery operable and storage capacity. This survey is the primary source of data in the Refinery Capacity section of the *PSA*, Volume 1.

Note 3. 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 to include natural gas plant liquids production and storage in 1925, 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	<i>Monthly Refinery Report</i>
EIA-811	<i>Monthly Bulk Terminal Report</i>
EIA-812	<i>Monthly Product Pipeline Report</i>
EIA-813	<i>Monthly Crude Oil Report</i>
EIA-814	<i>Monthly Imports Report</i>
EIA-816	<i>Monthly Natural Gas Liquids Report</i>
EIA-817	<i>Monthly Tanker and Barge Movement Report</i>

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 350 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 90 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 170 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 860 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 900 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 35 respondents report on the Form EIA-817.

Description of Survey Forms

The Form EIA-810, *Monthly Refinery Report*, collects 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*, collects 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*, collects 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*, collects 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*, collects 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/alcohol, and blending components only.

The Form EIA-816, *Monthly Natural Gas Liquids Report*, collects 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 natural gas processing plants. End-of-month stocks are collected from fractionators.

The Form EIA-817, *Monthly Tanker and Barge Movement Report*, collects data on the movements of crude oil and petroleum products between PAD Districts. Data is 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.

Collection Methods

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. Receipt of the reports are monitored using an automated respondent mailing list. Telephone follow-up calls are made to non-respondents 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 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and ending stocks. Data for nonrespondents on the Forms EIA-814 and 817 are not imputed because these data series, by respondent, are highly variable.

Confidentiality

The information contained on Forms EIA-810 through 813, 816 and 817 are kept confidential to the extent that they satisfy the criteria for exemption in the Freedom of Information Act (FOIA), the Department of Energy regulations 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.

Note 4. Preliminary Monthly Statistics Derivation

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

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

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

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during a 12-month period. Companies are chosen for the sample beginning with the largest companies with additional companies added until the total

sample coverage represents a minimum of 90 percent of each item by geographic region being measured. All monthly-from-weekly estimates in the Summary Statistics section are shown in italics.

In calculating monthly estimates based upon weekly submissions, an interpolation process is used to make the weekly figures comparable to the monthly. The interpolation process is designed to resolve the timing differences between the weekly and the monthly systems — the time-of-day of reporting periods and the day-of-month of reporting periods. The end of the weekly reporting period (exactly 1 week long) is 7 a.m. Friday. The end of the monthly reporting period (one calendar month long) is 12 midnight on the last day of the month. To resolve the difference in the time-of-day of the weekly and monthly reporting periods, it is assumed that there is no activity during the period 12 midnight Thursday through 7 a.m. Friday. Thus, for the purposes of interpolation, the weekly system reporting period is assumed to end at 12 midnight on Thursday. The resolution of the day-of-month differences depends on whether the series is a cumulative one (such as production and imports) or a value at a fixed point-in-time (i.e., stocks).

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

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

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

and the end of the monthly reporting period. The end-of-month stock levels are then estimated as the sum of (a) the stock level reported the last full week of the month, plus (b) the number of interpolation days multiplied by the average daily stock change for the week.

Note 5. Summary Statistics Table Sources

Information about petroleum supply and disposition series at the National level are presented in the Summary Statistics tables. Definitions for the data series, corresponding to the column headings, are contained in the Glossary.

The data presented in these tables are from several sources and represent different levels of timeliness and data finality. For most tables, the most current month, shown in italics is an estimate based on the data collected in the Weekly Petroleum Supply Reporting System (WPSRS). Refer to Explanatory Note 4. The source for the most current month where the data are not shown in italics is the Monthly Petroleum Supply Reporting System (MPSRS), reflecting that these data are not collected on a weekly basis. Statistics for earlier months and years were published in prior issues of the *Petroleum Supply Monthly* (PSM) and *Petroleum Supply Annual* (PSA). Following are the sources for the data contained in the Summary Statistics tables are:

- **Table S1. Crude Oil and Petroleum Products Overview**

The current month statistics appear as labeled in Detailed Statistics (DS) Table 4, unless otherwise noted.

Total Domestic Field Production is the sum of Crude Oil Field Production, Natural Gas Plant Liquids Field Production, and Other Hydrocarbons and Alcohol Field Production.

Crude Oil Field Production is estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production.

Natural Gas Plant Liquids Field Production is the sum of liquefied petroleum gases and pentanes plus produced at natural gas processing plants.

Ending Stocks of Crude Oil and Petroleum Products appear in thousand barrels in DS Table 2.

Petroleum Product Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports.

- **Table S2. Crude Oil Supply and Disposition**

Unless otherwise noted, data are from DS Tables 2 and 4. Total Domestic Field Production and Alaskan Field Production are estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production. SPR Imports, Other Imports, SPR Stock Change, Other Stock Change, SPR Ending Stocks and Other Primary Ending Stocks appear in DS Table 1.

- **Table S3. Crude Oil and Petroleum Product Imports**

Data on the country of origin of imports are from DS Table 25.

- **Table S4. Finished Motor Gasoline Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S5. Distillate Fuel Oil Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S6. Residual Fuel Oil Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S7. Liquefied Petroleum Gases Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

Total Production is the sum of Field Production and Refinery Production.

- **Table S8. Other Petroleum Products Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels. Other Products include pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

Note 6. Summary Statistics Figure Sources

Figures associated with the Summary Statistics tables are provided which depict the balance between supply, disposition, and ending stocks for various commodities. Displayed below are the figure sources (Refer to Explanatory Note 4 for further detail).

Figure	Figure Source
Figure S1. Petroleum Overview	Table S1
Figure S2. Petroleum Products Supplied	Table S1
Figure S3. Crude Oil Supply & Disposition	Table S2
Figure S4. Crude Oil Ending Stocks	Table S2
Figure S5. Finished Motor Gasoline Supply & Disposition	Table S4
Figure S6. Motor Gasoline Ending Stocks	Table S4
Figure S7. Distillate Fuel Oil Supply & Disposition	Table S5
Figure S8. Distillate Fuel Oil Ending Stocks	Table S5
Figure S9. Residual Fuel Oil Supply & Disposition	Table S6
Figure S10. Residual Fuel Oil Ending Stocks	Table S6
Figure S11. Liquefied Petroleum Gases Supply & Disposition	Table S7
Figure S12. Liquefied Petroleum Gases Ending Stocks	Table S7

The national inventory (stocks) graphs (figures S4, S6, S8, S10, and S12) for crude oil, finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases, in this publication included features to assist in comparing current inventory levels with past inventory levels and minimum operating levels. These features are described below.

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

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the U.S. Bureau of the Census (Census X-11). The seasonal factors

are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized¹. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36 months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the standard deviation. The lower curve is defined as the average minus the seasonal factors minus the standard deviation. Thus, the width of the average range is twice the standard deviation.

Note 7. Detailed Statistics Table Sources

The detailed statistics tables in the *Petroleum Supply Monthly* (PSM) provide complete supply and demand information for the current year. The tables are organized to locate National and Petroleum Administration for Defense (PAD) District summary data at the front followed by tables on crude oil and petroleum product production, import/export data, stocks information, and lastly, data on crude oil and petroleum product movements. The table, form or other source for items of each table are described below. Column and row headings are defined in the Glossary.

- **Table 1 - Energy Information Administration (EIA) Forms EIA-810 through 817, forecast estimate for domestic crude oil production, and Census Export data (EM-522 and EM-594).**
 - Lines (1) through (3): Crude Oil Field Production for Alaska and Total U.S. appear as labeled in Table 16. Lower 48 states are calculated by subtracting Alaska crude oil production from Total U. S. crude oil production.
 - Line (4): Crude Oil Imports, excluding Strategic Petroleum Reserve (SPR), are reported on Form EIA-814.
 - Line (5): SPR Imports are reported on Form EIA-814.

- Line (6): Exports of crude oil taken from Census tapes and data are reported on Form EIA-810 for U.S. territories.
- Line (7): Sum of lines (4) through (6).
- Line (8): The difference between the previous month and current month ending stocks held in the SPR.
- Line (9): The difference between the previous month and current month ending stocks (excluding SPR).
- Line (10): The sum of Crude Oil Product Supplied and Crude Losses as shown in Table 2.
- Line (11): Unaccounted for (Other Sources) is a balancing item for crude oil that represents the difference between crude oil supply and disposition.
- Line (12): Total Other Sources equals crude oil stock change, plus unaccounted for crude oil, minus crude oil losses, minus crude oil product supplied.
- Line (13): Crude Input to Refineries is the sum of lines (3), (7), and (12).
- Line (14): Natural Gas Liquids (NGL) Field Production equals field production of NGLs as shown in Table 2.
- Line (15): NGL Net Imports equals the sum of the imports of pentanes plus minus the exports of pentanes plus as shown in Table 2.
- Line (16): NGL Stock Change is equal to the stock change of pentanes plus in Table 2.
- Line (17): Total NGL Supply equals the sum of lines (14), (15), and (16).
- Line (18): Other Liquids Stock Change equals the aggregate stock change for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components.
- Line (19): The sum of unfinished oils and motor and aviation gasoline blending component imports reported on Form EIA-814.
- Line (20): Other Hydrocarbons and Alcohol New Supply equals the field production of same in Table 2 and is calculated by taking imports minus stock change minus refinery input.
- Line (21): Refinery Processing Gain is a balancing item equal to total refinery production minus total refinery input as shown in Table 2.
- Line (22): Crude Oil Product Supplied equals the amount reported on Form EIA-813 as crude oil consumed as fuel.
- Line (23): Total Other Liquids equals the sum of lines (18) through (22).
- Line (24): Total Production of Products equals the sum of lines (13), (17), and (23).
- Line (25): Gross Imports of Refined Products equals imports of LPGs plus imports of finished petroleum products as shown in Table 2.
- Line (26): Exports of Refined Products equals exports of LPGs plus exports of finished petroleum products as shown in Table 2.
- Line (27): Net Imports of Refined Products equals the difference between lines (25) and (26).
- Line (28): Total New Supply of Products equals the sum of lines (24) and (27).
- Line (29): Refined Products Stock Change equals the sum of stock change for LPGs and finished petroleum products in Table 2.
- Line (30): Total Petroleum Products Supplied for Domestic Use equals the total products supplied as shown in Table 2.
- Lines (31) through (34): Equal the respective products supplied of same in Table 2.
- Line (35): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.
- Line (36): Crude Oil Product Supplied is equal to the amount displayed on Table 2.
- Line (37): Total Products Supplied is equal to total products supplied in Table 2.

- Lines (38) and (39): Stocks of Crude Oil (Excluding SPR) and stocks held by the SPR equals ending stocks of crude in Table 2.
- Line (40): Finished Motor Gasoline stocks equals ending stocks displayed on Table 2.
- Line (41): Distillate Fuel Oil stocks equals ending stocks displayed on Table 2.
- Line (42): Residual Fuel Oil stocks equals ending stocks displayed on Table 2.
- Line (43): Liquefied Petroleum Gases stocks equals ending stocks displayed on Table 2.
- Line (44): Other Products stocks equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.
- Line (45): Equals the sum of lines (38) through (44).

• **Table 2**

Field Production - Field production is the sum of crude oil production, natural gas plant liquids production, and other liquids.

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 8 for further details.

Field production of natural gas plant liquids is reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, and published on a net basis (i.e., production minus inputs) in this column.

Other liquids field production is calculated by adding the stock change to the refinery inputs reported on Form EIA-810, *Monthly Refinery Report*.

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 - Published production of these products equal refinery production minus refinery input as reported on Form EIA-810, *Monthly Refinery Report*. 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.

Imports - Imports of crude oil and petroleum products are reported on Form EIA-814, *Monthly Imports Report*.

Unaccounted for Crude Oil - This column is a balancing item for crude oil. This data element represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production and imports. Crude oil disposition is the sum of stock change, losses, refinery inputs, exports, and products supplied. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems). A negative result indicates that more crude oil was reported to have been supplied to refiners and exporters than they reported to have used.

Stock Change - This column is calculated as the difference between the Ending Stocks column of this table and the Ending Stocks column of this table in the prior month's publication. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Crude Losses - The volume of crude oil reported by petroleum refineries on Form EIA-810, *Monthly Refinery Report*, 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 alcohol, liquefied petroleum gases, and pentanes plus) reported on Form EIA-810, *Monthly Refinery Report*, 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 are reported on Form EIA-810, *Monthly Refinery Report*. 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 alcohol are reported on Form EIA-810, *Monthly Refinery Report*, and published on a net basis (i.e., refinery input minus refinery production).

Inputs of finished petroleum products are reported on Form EIA-810, *Monthly Refinery Report*, and published on a net basis (i.e., refinery production minus refinery inputs) and displayed under the refinery production column.

Exports - The source of these data are the U.S. Bureau of the Census and the Form EIA-810, *Monthly Refinery Report*. Exports of crude oil and petroleum products are compiled from U.S. Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments from the 50 states to Puerto Rico, and the Virgin Islands, and are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in Puerto Rico and the Virgin Islands.

Products Supplied - Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts on a PAD District basis), minus stock change, minus crude losses, minus refinery inputs, minus exports.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production not having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. 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.

Ending Stocks - Ending stocks of crude oil are reported on Forms EIA-810 and 813. Ending stocks of natural gas liquids and LRGs are reported on Forms EIA-810, 811, 812 and 816. Ending stocks for other liquids are reported on Forms EIA-810 and 811. Ending stocks for finished petroleum products are reported on Forms EIA-810, 811, 812.

- **Table 3** - Sources are the same as described in Table 2. The values in this table are year-to-date quantities.
- **Table 4** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 2 by the number of days in the report month.
- **Table 5** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 3 by the number of days in the year-to-date.
- **Tables 6 through 15** - Sources are the same as described for Table 2 for all corresponding column headers. A net receipts column is required to calculate products supplied on a PAD District basis. Net receipts are calculated from data on inter-PAD District movements reported on Forms EIA-812, 813, and 817.
- **Table 16** - State government agencies. See Explanatory Note 8.

Table 16 provides estimates for crude oil production for the latest month for which State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

- **Table 17** - Form EIA-816, *Monthly Natural Gas Liquids Report*.

Production of these products equals natural gas processing plant production minus natural gas processing plant 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.

- **Table 18** - Form EIA-810, *Monthly Refinery Report*.
- **Table 19** - Form EIA-810, *Monthly Refinery Report*.

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.

- **Table 20** - Form EIA-810, *Monthly Refinery Report*.
- **Table 21** - Calculated from Tables 18 and 19.

To calculate the refinery yields of finished motor gasoline, subtract the inputs of pentanes plus, liquefied petroleum gases, other hydrocarbons/alcohol and motor gasoline blending components reported on Table 18 from the production of finished motor gasoline reported on Table 19 before dividing by the sum of crude oil input and unfinished oils input (net).

To calculate the refinery yield of finished aviation gasoline, subtract 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).

To arrive at refinery yields for all products (except finished motor gasoline and finished aviation gasoline), the production for each product listed on Table 19 is divided by the sum of crude oil input and unfinished oils input (net) reported in the U.S. total column on Table 18.

- **Tables 22 through 34** - Form EIA-814, *Monthly Imports Report*.
- **Tables 35 through 38** - Census Export data (EM-522 and 594) and Form EIA-810, *Monthly Refinery Report*.
- **Tables 39 and 40** - Form EIA-814, *Monthly Imports Report*, Census Export data (EM 522 and 594) and Form EIA-810, *Monthly Refinery Report*.

A negative number will occur when the amount of a product imported is less than the amount of that same product exported during the same month.

- **Table 41** - Primary stocks of crude oil are the sum of ending stocks reported on Forms EIA-810 and EIA-813. Crude oil held in the Strategic Petroleum Reserve and Alaskan crude oil in transit are shown as separate entries. Primary stocks of petroleum products are summed from data reported on Forms EIA-810 through 812 and EIA-816. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers.

- **Table 42** - Forms EIA-810, *Monthly Refinery Report* and EIA-811, *Monthly Bulk Terminal Report*.
- **Table 43** - Forms EIA-812, *Monthly Product Pipeline Report*, EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*.
- **Table 44** - Crude Oil (Form EIA-813, *Monthly Crude Oil Report*), Petroleum Products (Form EIA-812, *Monthly Product Pipeline Report*).

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.

- **Table 45** - Form EIA-817, *Monthly Tanker and Barge Movement Report*. 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.
- **Table 46** - Crude Oil (Forms EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*), Petroleum Products (Forms EIA-812, *Monthly Product Pipeline Report* and EIA-817, *Monthly Tanker and Barge Movement Report*).

Note 8. Domestic Crude Oil Production

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

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

Table 16 of this publication provides estimates of crude oil production in the latest month for which most State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares an original forecast estimate on the first day of the production month. Approximately 75 days later, this original estimate of monthly crude oil production is replaced by State-level interim estimates. The State-level interim estimates are based on: (a) data reported by the State (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*; (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Table B1 is intended to provide further insight into the EIA's estimates of monthly U.S. crude oil production. It shows: (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Weekly Petroleum Status Report*, and in the *Petroleum Supply Monthly* (PSM) Tables S1 and S2 until replaced by the interim estimate.
- The interim estimate is used in the PSM Tables 1 through 15, and in Tables S1 and S2 until replaced by the final estimate.
- The initial estimate based upon first purchase data collected on the Form EIA-182 is used as an estimation tool in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the production month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available about 70 days after the production month and includes imputation as needed. A final revision is published concurrent with publication of Form EIA-182 price data in the *Petroleum Marketing Annual*.
- The final estimate is published in the PSA.

Note 9. Export Data Source

Each month the Energy Information Administration (EIA) receives magnetic tapes of aggregated export statistics from the U.S. Bureau of the Census (EM-522 and EM-594).

Census export statistics used in the *Petroleum Supply Monthly* 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.

Table B1. U.S. Crude Oil^a Production Estimates and Reported State^b Data by Month

	Month of Production																	
Date of Data Availability	6-89	7-89	8-89	9-89	10-89	11-89	12-89	1-90	2-90	3-90	4-90	5-90	6-90	7-90	8-90	9-90	10-90	11-90
Reported State Data ^a																		
8-14-89	1930	0																
9-14-89	2748	1789	0															
10-14-89	7008	4491	1939	0														
11-14-89	7023	6825	4796	1974	0													
12-14-89	7479	6876	6960	4639	1960	0												
1-14-90	7508	7307	7380	6659	4426	1993	0											
2-14-90	7515	7311	7400	7380	6640	4406	1990	0										
3-14-90	7576	7370	7460	7445	7367	6975	4649	1927	0									
4-14-90	7622	7428	7537	7542	7447	7532	6259	4575	1912	0								
5-14-90	7626	7438	7544	7549	7456	7541	7308	6240	4598	1893	0							
6-14-90	7629	7449	7549	7555	7461	7559	7305	7366	7274	4337	1977	0						
7-14-90	7629	7450	7549	7555	7462	7568	7314	7382	7320	6820	4705	1841	0					
8-14-90	7638	7452	7549	7556	7464	7572	7315	7393	7338	7256	6742	4444	1672	0				
9-14-90	7638	7452	7549	7556	7464	7572	7316	7394	7339	7263	6831	6701	3919	1757	0			
10-14-90	7638	7452	7549	7556	7464	7572	7316	7415	7370	7292	7264	6753	6530	4291	1758	0		
11-14-90	7638	7452	7549	7556	7464	7572	7316	7421	7385	7308	7279	7177	6553	6560	4226	1787	0	
12-14-90	7640	7454	7551	7559	7484	7591	7333	7442	7392	7319	7299	7211	6969	6629	6727	4607	1963	0
Producing States Without Reported Monthly Production ^d																		
12-14-90	0	0	0	0	0	0	0	4	4	4	4	5	5	6	7	16	28	33

	Month of Production																	
	6-89	7-89	8-89	9-89	10-89	11-89	12-89	1-90	2-90	3-90	4-90	5-90	6-90	7-90	8-90	9-90	10-90	11-90
	Production Estimate																	
Original ^e	7726	7622	7662	7641	7644	7601	7565	7512	7399	7410	7310	7241	6981	7130	6971	6991	7261	7187
Interim ^f	7660	7474	7589	7563	7462	7564	7372	7522	7465	7394	7331	7259	7076	7144	7215	7167	7454	
Form EIA-182																		
Initial	7544	7351	7497	7442	7378	7473	7243	7479	7458	7356	7316	7220	7013	7116	7274	7146	7495	
Revised	7541	7351	7499	7448	7389	7497	7247	7481	7440	7368	7317	7223	7022	7112	7282	7147		
Final ^g	7624	7444	7544	7548	7453	7536	7337											

^a Includes lease condensate.

^b Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

^c Includes EIA prorated monthly production in 1989 (annual average of 96 thousand barrels per day) for four States (Michigan, New York, Ohio, and Pennsylvania) for which only annual State data are available.

^d Michigan is counted as having monthly reported data in 1989 after its annual report was received. These data were first reported as of 3-14-90. New York, Ohio, and Pennsylvania are counted as having monthly reported data in 1989 after their annual reports were received. These data were first reported as of 4-14-90.

^e Original estimates, through October 1990, were made on the first of each month. As of November 1990, original estimates are weighted averages based on the weekly estimates published in the *Weekly Petroleum Status Report*.

^f Interim estimates were made 44 days after the end of the production month.

^g Published in the *Petroleum Supply Annual 1989*, DOE/EIA 0340(89)/2.

Note 10. 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.

In any survey, nonresponse can be a major concern because the effects can cause serious bias in survey results. Nonresponse occurs whenever requested information is not obtained from all units in a survey. The PSRS surveys have a very high response rate. 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.

A principal objective of PSRS surveys is to provide a timely and accurate picture of petroleum industry activities. As part of this objective, 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 in the *Petroleum Supply Monthly* (PSM) feature article, "Comparison of Independent Statistics on Petroleum Supply" and in subsequent explanatory notes.

Resubmissions

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by respondent. Resubmissions are compared to the original submission and processed at the time of receipt. 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.

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., three 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 11. 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 within three time frames: monthly, annually, and triennially. 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.

To supplement monthly and annual frames maintenance activities and to provide more comprehensive coverage, the PSD conducts a comprehensive triennial frames investigation. These triennial evaluations result in the reassessment and recompilation of the complete frame for each survey.

In January 1975, 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: 1974 - 1,121; 1980 - 1,425; and 1982 - 1462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.

- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock change calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

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. However, 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 B2 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*.

Table B2. 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.

The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

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.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. Table B3 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 the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply

Table B3. 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

and Disposition Statistics (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, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 13. 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 on a five component basis (see Table B4) to be consistent with record keeping practices used by the industry. This table shows the product category under the new and old basis. Four Petroleum Supply Reporting System surveys were modified beginning in January 1984. They were:

Table B4. 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					.

EIA-810	<i>Monthly Refinery Report</i>
EIA-811	<i>Monthly Bulk Terminal Report</i>
EIA-812	<i>Monthly Product Pipeline Report</i>
EIA-816	<i>Monthly Natural Gas Liquids Report</i>

This change affected stocks reported and stock change calculations. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 108.
- Other Petroleum Products: 248.

A fifth survey, the 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 B5 are derived from the weighted averages of the data provided by the importers.

Exports

The export 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 B5 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 14. 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 6-10) and by *PAD District of processing* (Tables 16-19).

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

- Tables 6 through 10, "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 26, "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 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts."
 - A line was added to report crude oil movements.
- Table 29, "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.

**Table B5. Algorithm for Allocating NGL Imports/Exports
(Percent)**

	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	—	—

Note 15. 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* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. Table B6 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 liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

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 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."
 - Alaskan crude oil receipts were shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District."
 - The "petrochemical feedstock use" and "other use" were no longer shown separately for still gas or for liquefied refinery gases.
- Table 16 and 17, "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 18 and 19, "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 24, "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 16. 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) 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.

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 *Petroleum Supply Monthly* (PSM) Tables 12 through 15, 24, 30, and 31.
- Fresh feed inputs to catalytic cracking units, hydrocracking units, and cokers were added to Table 13, "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 17. 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 subsequently reflected in the *Petroleum Supply Annual*.

Changes in Data Collection

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

Table B6. 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.

- 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 being 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 *Petroleum Supply Annual* published in May 1989. Revisions for 1987 data are not planned.

Changes in Publication Tables

- Year-to-Date tables on Supply and Disposition by PAD District (Tables 7, 9, 11, 13, and 15) were added.
- "Stock Withdrawal" was renamed "Stock Change" and was moved from Supply to Disposition in Tables 2 through 15. 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 2-15, 19, 20, 23, 24, 43-46.
- PAD District Supply and Disposition tables (Tables 6 through 15) now display liquefied petroleum gases on a component basis.
- Tables showing net imports by country for the current month and year-to-date (Tables 39 and 40) were added.
- Table numbers were changed as a result of data additions and table reorganization. Table B7 is provided to show the new to old table numbers for the detailed statistics tables.
- Table 17, "Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts."
 - Stocks at natural gas processing plants by Refining Districts previously published on Table 24 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 19, "Net Refinery Production of Finished Petroleum Products by PAD and Refining District."
 - Net production of olefins (ethylene, propylene, and butylene) was added.

Table B7. Conversion Table for 1989 PSM

Table Numbers											
New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
1	1	9	NA	17	12, 24	25	18, 33	33	19	41	24, 31
2	2	10	8	18	13	26	18, 33	34	19	42	25
3	3	11	NA	19	14, 30	27	18, 33	35	20	43	26
4	4	12	9	20	24, 31	28	18, 33	36	21	44	27
5	5	13	NA	21	15	29	18, 33	37	22	45	28, 32
6	6	14	10	22	34	30	19	38	23	46	29
7	NA	15	NA	23	16	31	19	39	NA		
8	7	16	11	24	17	32	19	40	NA		

NA = Not Applicable

- Net production of naphthenic and paraffinic lubricants was added.
- Net production of residual fuel oil by percent sulfur, previously published as Table 30, was added.
- Table 20, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts."
 - Stocks at refineries by Refining District were added from the old stock table (Table 24).
 - Stocks of residual fuel oil by percent sulfur content, previously published as Table 31, were added.
- Tables 25 through 34, "Imports of Crude Oil and Petroleum Products by Country of Origin."
 - Data previously included in the "Other Products" category were displayed separately for the following products: naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, lubricants, and asphalt and road oil.
- Sulfur content categories for residual fuel oil, previously published as Table 33, were added.
- Tables 37 and 38, "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 the following products: pentanes plus, kerosene, naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use.
- Table 41, "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 Tables 17 and 20, respectively.
 - Sulfur content categories for residual fuel oil, previously published as Table 31, were added.

Appendix C

Impact of Resubmissions on Major Series, 1990

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

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

Table C1. Impact of Resubmissions on Major Series, 1990
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June	
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference
Inputs	14,614	15	14,484	2	13,868	5	14,112	4	14,136	8	14,815	1
Crude Oil.....	13,499	-2	13,494	-1	12,876	4	13,051	4	13,389	(s)	13,690	0
Pentanes Plus.....	165	1	178	2	171	1	179	0	179	0	173	0
LPGs.....	416	-3	348	-2	205	(s)	200	(s)	216	0	220	0
Ethane/Ethylene.....	0	0	(s)	0	(s)	0	1	0	(s)	0	(s)	0
Propane/Propylene.....	7	0	9	0	8	0	6	0	8	0	9	0
Normal Butane/Butylene.....	248	-2	183	-1	68	(s)	53	(s)	53	0	54	0
Isobutane.....	161	-1	154	-1	129	(s)	141	(s)	154	0	158	0
Other Hydrocarbons.....	68	8	66	4	65	0	74	0	75	(s)	71	0
Unfinished Oils.....	534	26	513	(s)	481	(s)	510	1	338	8	599	1
Motor Gas. Blend. Comp.....	-68	-11	-107	-1	69	(s)	98	(s)	-80	(s)	61	(s)
Aviation Gas. Blend. Comp.....	1	0	-3	0	1	0	1	0	-1	0	-1	0
Production.....	16,868	33	16,830	11	16,116	19	16,310	17	16,343	10	16,994	20
Pentanes Plus.....	288	9	304	7	299	5	296	3	306	3	307	2
LPGs.....	1,700	-12	1,784	-33	1,760	5	1,738	10	1,760	4	1,722	2
Ethane/Ethylene.....	462	5	465	6	454	3	453	5	448	(s)	434	(s)
Propane/Propylene.....	874	9	914	6	880	(s)	862	2	848	1	836	(s)
Normal Butane/Butylene.....	228	-28	230	-46	256	1	258	3	291	2	283	1
Isobutane.....	136	2	176	1	169	1	165	1	173	1	169	1
Other Hydrocarbons.....	66	-10	69	-5	72	5	72	0	80	-1	73	(s)
Finished Motor Gasoline.....	6,889	-28	6,978	-1	6,612	1	6,764	4	6,599	-1	7,084	(s)
Leaded.....	411	-8	396	-1	389	(s)	393	2	400	(s)	380	(s)
Unleaded.....	6,477	-20	6,582	(s)	6,223	1	6,371	2	6,199	-1	6,704	(s)
Finished Aviation Gasoline ..	16	0	22	0	20	0	22	0	28	0	29	0
Jet Fuel.....	1,486	-1	1,498	-1	1,425	0	1,335	-1	1,365	-2	1,355	0
Naphtha-Type Jet.....	187	-1	200	-1	201	0	178	(s)	198	0	175	0
Kerosene-Type Jet.....	1,299	(s)	1,298	0	1,224	0	1,156	(s)	1,167	-2	1,181	0
Kerosene.....	134	0	96	0	70	0	63	0	50	0	29	0
Distillate Fuel Oil.....	3,136	-7	2,753	(s)	2,855	1	2,802	(s)	2,873	(s)	2,995	0
Residual Fuel Oil.....	1,129	33	1,060	0	974	1	880	1	877	6	926	0
Naphtha Pet. Feedstock.....	109	21	133	0	143	0	137	0	142	0	109	17
Other Oils Pet. Feedstock.....	200	25	264	42	268	0	303	0	287	0	248	0
Special Naphthas.....	54	-1	54	0	52	0	56	(s)	59	0	60	0
Lubricants.....	156	(s)	166	0	162	0	173	0	165	0	155	0
Waxes.....	14	0	19	(s)	17	0	15	0	15	0	16	0
Petroleum Coke.....	538	2	561	0	537	0	546	(s)	541	(s)	548	0
Asphalt and Road Oil.....	251	0	326	0	345	0	382	0	480	0	571	0
Still Gas.....	642	2	676	0	649	0	670	0	650	1	700	0
Miscellaneous Products.....	58	(s)	67	1	55	(s)	57	0	66	(s)	68	(s)
Imports.....	9,147	46	8,306	87	7,925	32	7,758	78	8,738	57	8,690	32
Crude Oil.....	6,206	6	5,858	36	6,125	-8	5,740	59	6,438	-5	6,413	8
Pentanes Plus.....	18	0	11	0	4	0	4	0	13	0	4	0
LPGs.....	245	15	223	11	152	2	148	2	189	1	201	(s)
Ethane/Ethylene.....	8	0	0	2	6	0	5	0	5	0	5	0
Propane/Propylene.....	172	13	147	5	117	1	115	(s)	135	(s)	100	(s)
Normal Butane/Butylene.....	53	(s)	65	-7	22	1	19	1	37	1	69	(s)
Isobutane.....	12	2	11	12	7	1	9	(s)	13	0	27	0
Other Hydrocarbons.....	0	0	0	0	0	0	0	0	0	0	0	0
Unfinished Oils.....	441	0	401	0	369	20	350	11	430	-7	384	58
Motor Gas. Blend. Comp.....	71	0	61	0	71	0	49	0	74	(s)	131	0
Aviation Gas. Blend. Comp.....	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline.....	417	(s)	407	4	265	5	327	0	535	49	361	15
Leaded.....	1	0	(s)	0	(s)	0	0	0	2	0	3	0
Unleaded.....	416	(s)	407	4	265	5	327	0	533	49	358	15
Finished Aviation Gasoline ..	0	0	0	0	(s)	0	(s)	0	(s)	0	(s)	0
Jet Fuel.....	157	6	147	12	109	11	103	0	113	6	125	1
Naphtha-Type Jet.....	1	0	1	0	2	0	1	0	2	0	2	0
Kerosene-Type Jet.....	155	6	145	12	108	11	102	0	111	6	122	1
Kerosene.....	24	0	6	0	1	0	6	0	(s)	0	8	0
Distillate Fuel Oil.....	501	4	357	(s)	280	(s)	308	(s)	207	2	257	0
Residual Fuel Oil.....	809	16	640	23	334	1	555	4	507	2	536	-51
Naphtha Pet. Feedstock.....	139	-71	118	-62	111	-49	47	0	59	0	39	0
Other Oils Pet. Feedstock.....	74	67	18	62	65	49	79	0	111	0	166	0
Special Naphthas.....	5	3	14	1	3	(s)	10	1	18	-2	15	0
Lubricants.....	12	0	14	0	11	0	7	0	3	13	7	0
Waxes.....	1	0	2	0	1	0	1	0	1	0	1	0
Petroleum Coke.....	1	0	5	0	1	0	2	0	1	0	1	0
Asphalt and Road Oil.....	25	0	21	(s)	19	(s)	20	0	35	(s)	41	1
Miscellaneous Products.....	2	(s)	2	0	2	(s)	1	(s)	3	0	1	(s)

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

Table C1. Impact of Resubmissions on Major Series, 1990 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	July		August		September		October		November		December		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Inputs.....	15,392	1	15,389	-1	--	--	--	--	--	--	--	--	4
Crude Oil.....	14,208	1	14,140	-3	--	--	--	--	--	--	--	--	(s)
Pentanes Plus.....	186	0	182	0	--	--	--	--	--	--	--	--	(s)
LPGs.....	230	0	253	0	--	--	--	--	--	--	--	--	-1
Ethane/Ethylene.....	0	0	0	0	--	--	--	--	--	--	--	--	0
Propane/Propylene.....	8	0	8	0	--	--	--	--	--	--	--	--	0
Normal Butane/Butylene.....	64	0	73	0	--	--	--	--	--	--	--	--	(s)
Isobutane.....	158	0	171	0	--	--	--	--	--	--	--	--	(s)
Other Hydrocarbons.....	62	(s)	65	0	--	--	--	--	--	--	--	--	1
Unfinished Oils.....	746	(s)	739	2	--	--	--	--	--	--	--	--	5
Motor Gas. Blend. Comp.....	-42	0	13	-1	--	--	--	--	--	--	--	--	-2
Aviation Gas. Blend. Comp.....	1	0	-2	0	--	--	--	--	--	--	--	--	0
Production.....	17,554	5	17,733	(s)	--	--	--	--	--	--	--	--	15
Pentanes Plus.....	310	1	318	(s)	--	--	--	--	--	--	--	--	4
LPGs.....	1,750	3	1,823	3	--	--	--	--	--	--	--	--	-2
Ethane/Ethylene.....	453	1	498	2	--	--	--	--	--	--	--	--	3
Propane/Propylene.....	859	1	880	1	--	--	--	--	--	--	--	--	2
Normal Butane/Butylene.....	261	(s)	272	(s)	--	--	--	--	--	--	--	--	-8
Isobutane.....	178	1	173	0	--	--	--	--	--	--	--	--	1
Other Hydrocarbons.....	70	(s)	65	0	--	--	--	--	--	--	--	--	-1
Finished Motor Gasoline.....	7,230	0	7,315	(s)	--	--	--	--	--	--	--	--	-3
Leaded.....	406	0	410	(s)	--	--	--	--	--	--	--	--	-1
Unleaded.....	6,824	0	6,905	(s)	--	--	--	--	--	--	--	--	-2
Finished Aviation Gasoline.....	26	0	34	0	--	--	--	--	--	--	--	--	0
Jet Fuel.....	1,400	(s)	1,400	(s)	--	--	--	--	--	--	--	--	-1
Naphtha-Type Jet.....	126	0	174	(s)	--	--	--	--	--	--	--	--	(s)
Kerosene-Type Jet.....	1,274	(s)	1,226	0	--	--	--	--	--	--	--	--	(s)
Kerosene.....	76	(s)	57	(s)	--	--	--	--	--	--	--	--	(s)
Distillate Fuel Oil.....	3,006	(s)	3,131	-1	--	--	--	--	--	--	--	--	-1
Residual Fuel Oil.....	987	(s)	945	-1	--	--	--	--	--	--	--	--	5
Naphtha Pet. Feedstock.....	152	(s)	123	0	--	--	--	--	--	--	--	--	5
Other Oils Pet. Feedstock.....	305	0	276	0	--	--	--	--	--	--	--	--	8
Special Naphthas.....	59	0	60	(s)	--	--	--	--	--	--	--	--	(s)
Lubricants.....	175	0	173	0	--	--	--	--	--	--	--	--	(s)
Waxes.....	21	0	16	0	--	--	--	--	--	--	--	--	0
Petroleum Coke.....	554	0	583	0	--	--	--	--	--	--	--	--	(s)
Asphalt and Road Oil.....	626	0	600	0	--	--	--	--	--	--	--	--	0
Still Gas.....	743	0	739	(s)	--	--	--	--	--	--	--	--	(s)
Miscellaneous Products.....	65	0	73	0	--	--	--	--	--	--	--	--	(s)
Imports.....	8,893	103	8,558	78	--	--	--	--	--	--	--	--	64
Crude Oil.....	6,812	(s)	6,432	20	--	--	--	--	--	--	--	--	15
Pentanes Plus.....	3	0	12	0	--	--	--	--	--	--	--	--	0
LPGs.....	156	(s)	206	48	--	--	--	--	--	--	--	--	10
Ethane/Ethylene.....	0	0	0	0	--	--	--	--	--	--	--	--	(s)
Propane/Propylene.....	90	(s)	110	2	--	--	--	--	--	--	--	--	3
Normal Butane/Butylene.....	45	(s)	68	31	--	--	--	--	--	--	--	--	3
Isobutane.....	21	0	28	15	--	--	--	--	--	--	--	--	4
Other Hydrocarbons.....	0	0	0	0	--	--	--	--	--	--	--	--	0
Unfinished Oils.....	353	0	373	0	--	--	--	--	--	--	--	--	10
Motor Gas. Blend. Comp.....	70	20	44	(s)	--	--	--	--	--	--	--	--	2
Aviation Gas. Blend. Comp.....	0	0	0	0	--	--	--	--	--	--	--	--	0
Finished Motor Gasoline.....	372	60	313	0	--	--	--	--	--	--	--	--	17
Leaded.....	1	0	6	0	--	--	--	--	--	--	--	--	0
Unleaded.....	372	60	307	0	--	--	--	--	--	--	--	--	17
Finished Aviation Gasoline.....	(s)	0	(s)	0	--	--	--	--	--	--	--	--	0
Jet Fuel.....	85	15	83	0	--	--	--	--	--	--	--	--	6
Naphtha-Type Jet.....	2	0	2	0	--	--	--	--	--	--	--	--	0
Kerosene-Type Jet.....	83	15	81	0	--	--	--	--	--	--	--	--	6
Kerosene.....	1	0	1	0	--	--	--	--	--	--	--	--	0
Distillate Fuel Oil.....	229	7	292	1	--	--	--	--	--	--	--	--	2
Residual Fuel Oil.....	535	1	574	0	--	--	--	--	--	--	--	--	-1
Naphtha Pet. Feedstock.....	67	0	36	7	--	--	--	--	--	--	--	--	-22
Other Oils Pet. Feedstock.....	150	0	129	0	--	--	--	--	--	--	--	--	22
Special Naphthas.....	4	0	6	(s)	--	--	--	--	--	--	--	--	(s)
Lubricants.....	12	0	10	0	--	--	--	--	--	--	--	--	2
Waxes.....	1	0	2	0	--	--	--	--	--	--	--	--	0
Petroleum Coke.....	5	0	1	0	--	--	--	--	--	--	--	--	0
Asphalt and Road Oil.....	37	0	44	(s)	--	--	--	--	--	--	--	--	(s)
Miscellaneous Products.....	2	(s)	2	0	--	--	--	--	--	--	--	--	(s)

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

Table C1. Impact of Resubmissions on Major Series, 1990 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June	
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference
Stocks (Thousand Barrels)	1,051,022	-1,476	1,058,003	-3,813	1,061,200	-1,379	1,056,496	410	1,084,920	1,181	1,097,103	998
Crude Oil (excl. SPR)	352,267	-3,117	343,081	-3,484	373,655	-2,735	369,705	855	382,480	201	384,237	98
Pentanes Plus	7,968	127	7,239	10	7,334	-76	7,091	23	7,279	4	7,757	0
LPGs	76,107	486	76,675	651	77,962	1,584	82,047	192	90,706	255	104,249	325
Ethane/Ethylene	23,585	147	24,511	479	24,158	-296	24,219	4	22,899	1	22,378	0
Propane/Propylene	32,979	192	32,171	804	31,103	1,704	31,705	163	35,584	248	43,990	324
Normal Butane/Butylene	12,571	106	12,142	-218	14,739	199	17,857	-2	22,867	5	27,893	0
Isobutane	6,972	41	7,851	-414	7,962	-23	8,266	27	9,356	1	9,988	1
Other Hydrocarbons	644	132	749	167	977	0	907	0	1,037	9	1,104	0
Unfinished Oils	103,511	-89	106,468	-101	109,780	-5	108,729	-12	116,582	44	117,515	1
Motor Gas. Blend. Comp	40,350	-137	44,325	-165	42,133	44	39,126	-36	39,575	28	37,554	95
Aviation Gas. Blend. Comp	141	0	180	0	145	0	125	0	159	0	178	0
Finished Motor Gasoline	195,834	1,294	201,341	6	186,056	-203	184,486	-72	178,416	222	175,840	-16
Leaded	17,828	-36	15,444	-146	13,559	-181	12,603	-20	11,906	-23	10,560	-20
Unleaded	177,806	1,330	185,897	152	172,497	-22	171,883	-52	166,510	245	165,280	4
Finished Aviation Gasoline	1,976	4	1,947	-1	1,843	-39	1,830	-30	1,884	0	1,833	0
Jet Fuel	42,818	192	46,389	-3	48,938	421	46,844	-272	46,832	-60	47,255	3
Naphtha-Type Jet	6,381	4	6,336	1	7,082	-34	6,328	-29	6,853	0	6,969	0
Kerosene-Type Jet	36,437	188	40,053	-4	41,856	455	40,516	-243	39,979	-60	40,286	3
Kerosene	6,495	-60	5,693	-16	5,129	-16	5,194	0	5,501	0	5,071	0
Distillate Fuel Oil	117,949	-174	112,224	-464	99,684	-801	99,459	-258	102,828	335	109,392	466
Residual Fuel Oil	49,729	484	51,479	-261	46,190	117	48,993	16	49,641	55	48,766	3
Naphtha Pet. Feedstock	2,106	-5	2,292	-5	2,322	0	2,220	0	1,993	0	1,849	3
Other Oils Pet. Feedstock	1,935	0	2,848	0	2,614	0	2,022	0	2,670	0	2,589	0
Special Naphthas	2,691	-94	2,844	-96	2,949	-4	2,699	-1	2,724	0	2,697	0
Lubricants	13,597	-12	13,011	-19	12,264	2	12,353	8	12,256	05	12,351	0
Waxes	953	-2	1,032	-1	1,044	0	955	0	941	0	901	0
Petroleum Coke	9,228	0	9,444	0	8,954	0	9,423	1	9,989	0	8,603	0
Asphalt and Road Oil	22,215	-40	25,957	103	28,519	303	29,873	-30	29,091	0	26,977	0
Miscellaneous Products	2,708	-465	2,785	-134	2,708	29	2,415	26	2,336	23	2,385	20
Product Supplied	16,968	12	17,024	134	17,083	-2	16,666	95	16,843	19	17,112	46
Crude Oil	40	0	36	0	24	0	24	0	30	0	29	0
Pentanes Plus	156	5	161	9	128	7	128	(s)	133	3	120	2
LPGs	1,660	-10	1,599	-26	1,620	-23	1,525	58	1,417	3	1,223	(s)
Ethane/Ethylene	462	(s)	431	-4	471	28	455	-5	495	(s)	456	(s)
Propane/Propylene	1,012	16	1,048	-12	993	-28	935	53	825	-1	626	-2
Normal Butane/Butylene	163	-29	117	-40	113	-12	112	11	101	2	123	2
Isobutane	22	4	2	30	44	-11	23	(s)	-4	2	17	1
Other Hydrocarbons	0	-10	0	-5	0	5	0	0	0	-1	0	(s)
Unfinished Oils	-7	-23	-218	1	-219	17	-125	11	-161	-17	-247	58
Motor Gas. Blend. Comp	14	15	26	2	73	-6	51	3	119	-2	138	-2
Aviation Gas. Blend. Comp	0	0	2	0	(s)	0	0	0	0	0	0	0
Finished Motor Gasoline	6,675	-70	7,129	49	7,325	13	7,116	(s)	7,304	39	7,478	23
Leaded	404	-7	472	3	443	1	420	-3	421	(s)	420	(s)
Unleaded	6,272	-63	6,657	46	6,881	12	6,696	3	6,884	39	7,059	23
Finished Aviation Gasoline	19	(s)	23	(s)	24	1	23	(s)	27	-1	31	0
Jet Fuel	1,551	-1	1,468	18	1,423	-3	1,488	22	1,470	-3	1,456	-2
Naphtha-Type Jet	182	-1	203	-1	165	1	196	-1	182	-1	170	0
Kerosene-Type Jet	1,369	(s)	1,265	19	1,257	-4	1,292	23	1,288	-2	1,286	-2
Kerosene	113	2	130	-2	87	0	66	-1	41	0	50	0
Distillate Fuel Oil	3,177	3	3,250	10	3,265	12	3,059	-18	2,897	-17	2,949	-4
Residual Fuel Oil	1,561	33	1,424	49	1,202	-10	1,142	9	1,222	6	1,350	-49
Naphtha Pet. Feedstock	238	-50	237	-62	250	-49	184	0	201	0	148	17
Other Oils Pet. Feedstock	257	92	226	104	319	49	371	0	350	0	396	0
Special Naphthas	62	5	46	1	43	-3	73	1	71	-2	72	0
Lubricants	160	1	185	(s)	180	-1	147	(s)	153	12	138	2
Waxes	16	(s)	17	0	15	(s)	17	0	16	0	15	0
Petroleum Coke	346	2	332	0	336	0	291	(s)	295	(s)	317	0
Asphalt and Road Oil	223	1	211	-5	280	-6	351	11	540	-1	680	1
Still Gas	642	2	676	0	649	0	670	0	650	1	700	0
Miscellaneous Products	64	15	66	-11	58	-5	66	(s)	68	(s)	67	(s)

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

Table C1. Impact of Resubmissions on Major Series, 1990 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	July		August		September		October		November		December		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Stocks (Thousands Barrels)...	1,123,959	687	1,111,144	271	--	--	--	--	--	--	--	--	-390
Crude Oil (excl. SPR)	379,518	0	369,567	26	--	--	--	--	--	--	--	--	-1,020
Pentanes Plus.....	8,731	1	8,980	6	--	--	--	--	--	--	--	--	12
LPGs.....	112,289	602	122,639	215	--	--	--	--	--	--	--	--	539
Ethane/Ethylene.....	20,713	98	20,536	0	--	--	--	--	--	--	--	--	54
Propane/Propylene.....	48,930	374	52,873	220	--	--	--	--	--	--	--	--	504
Normal Butane/Butylene	32,665	70	38,547	-4	--	--	--	--	--	--	--	--	20
Isobutane.....	9,981	60	10,683	-1	--	--	--	--	--	--	--	--	-39
Other Hydrocarbons	1,342	0	1,361	0	--	--	--	--	--	--	--	--	39
Unfinished Oils.....	112,429	-3	111,030	-17	--	--	--	--	--	--	--	--	-23
Motor Gas. Blend. Comp	38,993	16	37,779	32	--	--	--	--	--	--	--	--	-15
Aviation Gas. Blend. Comp.....	142	0	199	0	--	--	--	--	--	--	--	--	0
Finished Motor Gasoline.....	180,358	0	173,549	6	--	--	--	--	--	--	--	--	155
Leaded.....	10,589	0	10,595	0	--	--	--	--	--	--	--	--	-53
Unleaded	169,769	0	162,954	6	--	--	--	--	--	--	--	--	208
Finished Aviation Gasoline	1,672	0	1,814	0	--	--	--	--	--	--	--	--	-8
Jet Fuel	50,891	-3	48,232	-2	--	--	--	--	--	--	--	--	35
Naphtha-Type Jet	6,334	0	5,719	-3	--	--	--	--	--	--	--	--	-8
Kerosene-Type Jet	44,557	-3	42,513	1	--	--	--	--	--	--	--	--	42
Kerosene	5,957	24	5,949	-1	--	--	--	--	--	--	--	--	-9
Distillate Fuel Oil	125,250	25	131,093	-796	--	--	--	--	--	--	--	--	-208
Residual Fuel Oil	49,000	8	48,233	804	--	--	--	--	--	--	--	--	153
Naphtha Pet. Feedstock.....	1,813	8	1,451	0	--	--	--	--	--	--	--	--	(s)
Other Oils Pet. Feedstock.....	2,398	0	2,029	0	--	--	--	--	--	--	--	--	0
Special Naphthas.....	2,954	2	2,910	-2	--	--	--	--	--	--	--	--	-24
Lubricants.....	13,052	0	12,017	0	--	--	--	--	--	--	--	--	6
Waxes.....	930	0	865	0	--	--	--	--	--	--	--	--	(s)
Petroleum Coke.....	7,527	0	7,568	0	--	--	--	--	--	--	--	--	(s)
Asphalt and Road Oil.....	26,298	0	21,335	0	--	--	--	--	--	--	--	--	42
Miscellaneous Products.....	2,415	7	2,544	0	--	--	--	--	--	--	--	--	-62
Product Supplied.....	16,856	115	17,936	69	--	--	--	--	--	--	--	--	61
Crude Oil.....	31	0	18	0	--	--	--	--	--	--	--	--	0
Pentanes Plus.....	95	1	139	(s)	--	--	--	--	--	--	--	--	3
LPGs.....	1,379	-6	1,400	63	--	--	--	--	--	--	--	--	7
Ethane/Ethylene.....	507	-2	504	5	--	--	--	--	--	--	--	--	3
Propane/Propylene.....	758	-1	831	7	--	--	--	--	--	--	--	--	4
Normal Butane/Butylene	74	-2	58	33	--	--	--	--	--	--	--	--	-4
Isobutane.....	40	-1	8	17	--	--	--	--	--	--	--	--	5
Other Hydrocarbons	0	(s)	0	0	--	--	--	--	--	--	--	--	-1
Unfinished Oils.....	-230	(s)	-321	-2	--	--	--	--	--	--	--	--	6
Motor Gas. Blend. Comp	65	23	70	(s)	--	--	--	--	--	--	--	--	4
Aviation Gas. Blend. Comp.....	(s)	0	0	0	--	--	--	--	--	--	--	--	0
Finished Motor Gasoline.....	7,415	59	7,771	(s)	--	--	--	--	--	--	--	--	14
Leaded.....	403	-1	412	(s)	--	--	--	--	--	--	--	--	-1
Unleaded	7,012	60	7,360	(s)	--	--	--	--	--	--	--	--	15
Finished Aviation Gasoline	31	0	30	0	--	--	--	--	--	--	--	--	0
Jet Fuel	1,358	15	1,531	(s)	--	--	--	--	--	--	--	--	6
Naphtha-Type Jet	148	0	188	(s)	--	--	--	--	--	--	--	--	(s)
Kerosene-Type Jet	1,210	15	1,343	(s)	--	--	--	--	--	--	--	--	6
Kerosene	48	(s)	58	1	--	--	--	--	--	--	--	--	(s)
Distillate Fuel Oil	2,693	22	3,184	26	--	--	--	--	--	--	--	--	4
Residual Fuel Oil	1,279	1	1,263	-27	--	--	--	--	--	--	--	--	2
Naphtha Pet. Feedstock.....	218	(s)	164	7	--	--	--	--	--	--	--	--	-17
Other Oils Pet. Feedstock.....	448	0	402	0	--	--	--	--	--	--	--	--	31
Special Naphthas.....	43	(s)	55	0	--	--	--	--	--	--	--	--	(s)
Lubricants.....	150	0	196	0	--	--	--	--	--	--	--	--	2
Waxes.....	19	0	18	0	--	--	--	--	--	--	--	--	0
Petroleum Coke.....	329	0	352	0	--	--	--	--	--	--	--	--	(s)
Asphalt and Road Oil.....	682	0	799	(s)	--	--	--	--	--	--	--	--	(s)
Still Gas	743	0	739	(s)	--	--	--	--	--	--	--	--	(s)
Miscellaneous Products.....	63	1	66	(s)	--	--	--	--	--	--	--	--	(s)

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

Glossary

Pipelines carry crude oil and petroleum products between refineries and ports.

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; $\text{CH}_3(\text{CH}_2)_n\text{-OH}$ (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

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 constituents, 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 and aromatics 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 alcohol.

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). One of the aromatic compounds, commonly referred to as BTXs, and a basic building block of the petrochemical industry. It is primarily manufactured through catalytic reforming processes, steel milling coking production and olefin operations. It is found in motor gasoline and is used as a solvent, and in organic synthesis.

Blending Plant. A facility which has no refining capability but is capable of producing finished motor gasoline through mechanical blending.

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 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 receive 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.

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 generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

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.

Crude Oil Used Directly. Represents the amount of crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

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.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400° F at the 10-percent recovery point and 550° F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540° and 640° F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a maximum distillation temperature of 550° F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540° and 640° F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

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 plant 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.

Ethane (C₂H₆). A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene (C₂H₄). An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

Exports. Shipments of 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, and new supply of other hydrocarbons and alcohol.

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 alcohol 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.

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 (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent volume of alcohol. Gasohol is included in finished leaded and unleaded motor gasoline.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformate). 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 (such as shale oil, tar sand oils, gilsonite, etc.).

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; 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 sand oil, gilsonite, and shale oil.

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.

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 commercial turbojet and turboprop aircraft engines.

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° to 650° F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane 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. 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.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

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. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, reformate, benzene, toluene, and xylene). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as other hydrocarbons, hydrogens, and alcohol.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122° and 400° F.

Naphtha Less Than 401° F. See Petrochemical Feedstocks.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290° F at the 20-percent recovery point and 470° F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop

aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is 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.

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 Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, oxygenates, 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.

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

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 Ad-

ministration for Defense in 1950. These districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which was established in 1942.

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. 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 alcohol.

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 alcohol, 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 alcohol, 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.

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 6.000 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.

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. In this publication, 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.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene (C₆H₅CH₃). One of the aromatic, commonly found referred to as BTXs, similar to benzene but less volatile. It is primarily manufactured through catalytic reforming processes, steel mill coking production and olefin plant operations. It is used as a motor gasoline high-octane blending compound, as a solvent and in organic synthesis.

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 ($C_6H_4Y(CH_3)_2$) One of the aromatic compounds commonly referred to as BTXs. It is primarily manufactured through catalytic reforming processes, steel mill

coking production and olefin plant operations. It is used as a motor gasoline high-octane blending component, as a solvent and in organic synthesis.

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