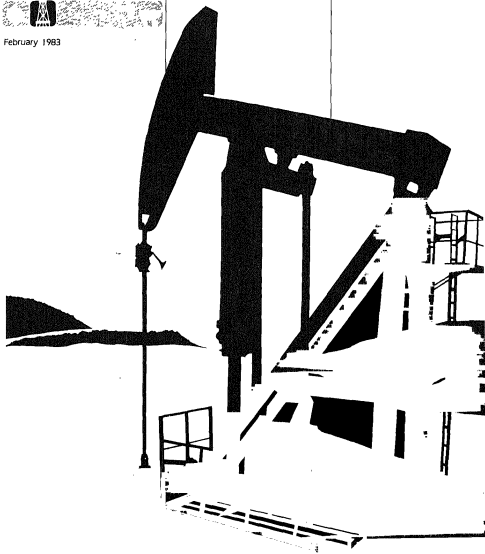


Petroleum Supply Monthly



February 1983

Energy Information Administration
Washington, D.C.



Petroleum Supply Monthly

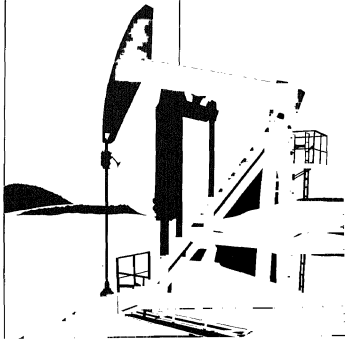


February 1983

Energy Information Administration
Washington, D.C. 20585

DOE/EIA-0109(83/02)

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



Subscription Information

The Petroleum Supply Monthly report is prepared by the Petroleum Supply Division, Office of Oil and Gas, Energy Information Administration. This publication is available on an annual subscription basis from the Superintendent of Documents, U.S. Government Printing Office. Send order and payment to:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

Single Copy
Domestic-\$5.00/copy
Foreign-\$6.25/copy

Order Desk (202) 783-3238

Subscription
Domestic-\$60.00/year
Foreign-\$75.00/year

For questions on energy statistics or information on availability of other EIA publications, contact: National Energy Information Center, EI-20, Forrestal Building, Washington, D.C. 20585; (202) 252-8800.

Released for printing: February 28, 1983.

Contents

Summary Statistics Tables November 1982

Detailed Statistics Tables November 1982

Petroleum Focus	1
Summary Statistics	17
Detailed Statistics	41
Glossary	G-1
Explanatory Notes	E-1

Crude Oil and Petroleum Products Overview	18
Crude Oil Supply and Disposition	22
Finished Motor Gasoline Supply and Disposition	26
Distillate Fuel Oil Supply and Disposition	27
Residual Fuel Oil Supply and Disposition	32
Liquefied Petroleum Gases and Ethane Supply and Disposition	33
Other Petroleum Products Supply and Disposition	36
Imports of Crude Oil and Petroleum Products from OPEC Sources	37
Imports of Crude Oil and Petroleum Products from Non-OPEC Sources	38
Sources	39

National Statistics

Table 1. U.S. Petroleum Balances	43
Table 2. Supply and Disposition of Crude Oil and Petroleum Products	44
Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products	45
Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products	46
Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products	47

Supply and Disposition of Crude Oil and Petroleum Products by PAD Districts

Table 6. PAD District I	48
Table 7. PAD District II	49
Table 8. PAD District III	50
Table 9. PAD District IV	51
Table 10. PAD District V	52

Production of Crude Oil and Lease Condensate (September 1982)

Table 11. Production by PAD District and State	53
Table 12. Offshore Production by State	54
Table 13. Production of Lease Condensate by State	54

Natural Gas Processing

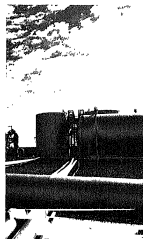
Table 14. Natural Gas Processing Plant Production of Petroleum Products by PAD District	55
---	----

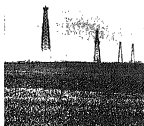
Refinery Operations by PAD District

Table 15. Refinery Input of Crude Oil and Petroleum Products	56
Table 16. Refinery Production of Petroleum Products	57
Table 17. Percent Refinery Yield of Petroleum Products	58
Table 18. Refinery Receipts of Crude Oil	59
Table 19. Fuels Consumed at Refineries	59

Imports and Exports of Crude Oil and Petroleum Products

Table 20. Imports by PAD District	60
Table 21. Imports by Source and PAD District	61
Table 22. Exports by PAD District	65
Table 23. Exports by Destination	66

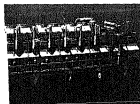




Figures



Glossary Explanatory Notes



Stocks

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District	68
--	----

Transportation of Crude Oil and Petroleum Products Between PAD Districts

Table 25. Movements by Pipeline, Tanker, and Barge	73
Table 26. Movements by Pipeline	74
Table 27. Movements by Tanker and Barge	74
Table 28. Net Movements by Pipeline, Tanker, and Barge	75

Heavy Fuel Oils by Sulfur Content

Table 29. Production of No. 4 Fuel Oil and Residual Fuel Oil	76
Table 30. Stocks of No. 4 Fuel Oil and Residual Fuel Oil	77
Table 31. Imports of Residual Fuel Oil by Country of Origin	78
Table 32. Imports of Residual Fuel Oil by State of Entry	79

Petroleum Overview, Annual	20
Petroleum Overview, Monthly	21
Crude Oil and Petroleum Products Ending Stocks, Annual	20
Crude Oil and Petroleum Products Ending Stocks, Monthly	21
Crude Oil Supply and Disposition, Annual	24
Crude Oil Supply and Disposition, Monthly	25
Crude Oil Ending Stocks, Annual	24
Crude Oil Ending Stocks, Monthly	25
Products Supplied, Annual	28
Products Supplied, Monthly	29
Motor Gasoline Ending Stocks, Annual	28
Motor Gasoline Ending Stocks, Monthly	29
Distillate Fuel Oil Ending Stocks, Annual	30
Distillate Fuel Oil Ending Stocks, Monthly	31
Residual Fuel Oil Ending Stocks, Annual	30
Residual Fuel Oil Ending Stocks, Monthly	31
Liquefied Petroleum Gases and Ethane Ending Stocks, Annual	34
Liquefied Petroleum Gases and Ethane Ending Stocks, Monthly	35
Other Petroleum Products Ending Stocks, Annual	34
Other Petroleum Products Ending Stocks, Monthly	35

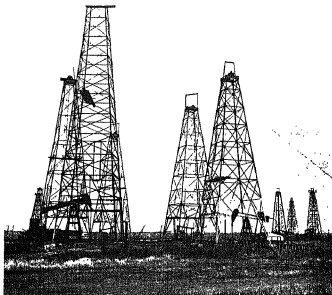
Definitions of Petroleum Products and Other Terms	G-1
---	-----

1. Data Collection	E-2
1.1 EIA-64: Natural Gas Liquids Operations Report	
1.2 EIA-87, 88, 89, 90: Joint Petroleum Reporting System	
1.3 EIA-161, 162, 163, 164, 165: Weekly Petroleum Reporting System	
1.4 EIA-170: Tanker and Barge Shipments of Crude Oil and Petroleum Products Between Districts	
1.5 EIA-60: Report of Oil Imports into the United States and Puerto Rico	
1.6 Census Import and Export Tabulations	
2. Estimation	E-10
2.1 Supply	
2.2 Domestic Crude Oil Production	
2.3 Disposition	
2.4 Stocks	
2.5 Average Stock Levels	
2.6 Movements	
2.7 Preliminary Monthly Statistics	

3. Accuracy of Petroleum Supply Data	E-14
4. Changes in Petroleum Industry Reporting	E-20
5. Notes on Tables	E-23
5.1 Crude Oil and Petroleum Products Overview	
5.2 Crude Oil Supply and Disposition	
5.3 Finished Motor Gasoline Supply and Disposition	
5.4 Distillate and Residual Fuel Oil Supply and Disposition	
5.5 Liquefied Petroleum Gases and Ethane Supply and Disposition	
5.6 Other Petroleum Products Supply and Disposition	
5.7 U.S. Petroleum Balance (Table 1)	

Maps

PAD Districts	G-9
Bureau of Mines Refinery Districts	G-9
District Map, Oil and Gas Division, Railroad Commission of Texas	G-10



Petroleum Focus



Petroleum Supply Summary

Average Volume for Period (Million Barrels Per Day)	January		
	1983	1982	% Change
Total Product Supplied	18.3	15.9	-3.8
Motor Gasoline	6.0	5.9	0.7
Distillate Fuel Oil	3.1	3.4	-10.4
Residual Fuel Oil	1.8	2.1	-15.1
Crude Inputs to Refineries	11.3	11.6	-3.0
Crude Oil and Natural Gas Liquids Production	10.3	10.2	0.5
Net Imports ¹	3.4	4.4	-21.8
Net Crude Oil Imports ²	2.6	3.2	-16.6
SPR Imports	0.2	0.2	11.2
Net Product Imports	0.6	1.0	-37.6
Crude Oil Stock Withdrawal ³	-0.09	-0.06	-
Product Stock Withdrawal	1.14	1.13	-
Stocks at End of Period (Million Barrels)			
Crude Oil ⁴	358	371	-4.0
Motor Gasoline ⁵	243	262	-7.4
Distillate Fuel Oil	160	165	-3.6
Residual Fuel Oil	56	55	-17.8
Total Product	756	855	-11.8
SPR	300	235	27.4
Total	1,414	1,461	-3.2

¹Gross imports of crude oil including Strategic Petroleum Reserve (SPR) and petroleum products less exports of crude oil and petroleum products.

²Excluding SPR.

³Including blending components.

Note: Percent changes are based on unrounded values. January 1983 data are estimates based on weekly data, except for export estimates which are December 1982 monthly values.

Source: Energy Information Administration, *Petroleum Supply Monthly*, February 1983.

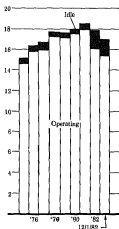
Refinery Shutdowns During 1982

During 1982, 57 refineries with more than 1.1 million barrels per calendar day of crude oil distillation capacity were shut down (see Table 1). In addition, at yearend, 1.5 million barrels per day of refinery capacity was reported as idle but capable of being brought into operation in 90 days (see figure 1).¹ The refinery closings in 1982 and the large reduction in U.S. refining capacity continued the trend started in 1981. During that year, 23 refineries with 451 thousand barrels per day of crude oil distillation capacity closed; in addition, 260 thousand barrels per day (net) of crude oil distillation capacity was shut down in refineries that remained operable. These shutdowns ended an uninterrupted trend in refinery capacity expansions that began in 1967.²

The refineries that were shut down during 1982 had some common characteristics (age, size, complexity, and location):

- About 40 percent of the refineries that were shut down had operated for 25 years or more. Another 40 percent of the refineries that were shut down were less than 5 years old.
- More than half of the refineries that were shut down had a crude oil distillation capacity of less than 10 thousand barrels per day, and 90 percent had a crude oil distillation capacity of less than 50 thousand barrels per day.
- More than 60 percent of the refineries that were shut down had no downstream processing capability.
- Most of the larger and older refineries that were shut down were in the Midwest and on the East Coast; most of the smaller and newer refineries that were shut down were on the Gulf Coast.

Figure 1. Operable Refinery Capacity as of January 1 (Million Barrels per Day)



Sources: *Petroleum Supply Monthly*, January 1983; *Petroleum Supply Annual 1981*; *Location of Petroleum Refineries in the United States and U.S. Territories, 1976-1980*.

The 1982 refinery shutdowns were primarily the result of shifts in petroleum demand, economic factors, and changes in governmental regulations. Total petroleum consumption (measured as petroleum products supplied) decreased during 1982, but consumption of lighter products, such as gasoline and jet fuels, accounted for an increased share of the total. Smaller, less-complex refineries, which were unable to produce more light products from less-expensive, heavy, high-sulfur crude oil, were at an economic disadvantage. Many of these small refineries, which benefitted from lower crude oil prices under the Crude Oil Entitlements Program, became unprofitable when the program was phased out in early 1981.

The drop in refinery capacity is associated with a drop in petroleum products supplied. During the past 4 years, total petroleum products supplied

¹See explanatory notes for capacity definitions.

²Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0304(81) (Washington D.C.: 1981); Energy Information Administration, *Petroleum Refineries in the United States and U.S. Territories*, DOE/EIA-0111 (Washington D.C.: 1978, 1979, 1980, 1981).

dropped 19 percent, from 18.8 million barrels per day in 1978 to 15.2 million barrels per day in 1982 (see Figure 2). Refinery capacity peaked at 18.6 million barrels per day in January 1981, 3 years after petroleum products supplied peaked.² During the past 2 years, refinery capacity has decreased 8 percent to 17.1 million barrels per day.³

Refinery Age

Twenty-three of the 57 refineries shut down during 1982 had been operating more than 25 years. These older refineries were located primarily in the East and Midwest (see Table 1). All three refineries shut down on the East Coast and 12 of the 14 refineries shut down in the Midwest had been operating more than 25 years.

Twenty-three of the shutdown refineries had been operating less than 5 years. Twenty of these newer refineries were in the Gulf Coast region. These refineries were built when the Crude Oil Entitlements Program was in effect (1974-1981). This Federal program gave small refiners a significant crude-oil-cost advantage over large refiners. When the Entitlements Program was eliminated, small refiners lost this advantage, and many closed.

Refinery Size

The refineries shut down during 1982 were, in general, smaller than those remaining in operation. As of January 1, 1982, the number of refineries with a capacity of 50 thousand barrels per day or less accounted for 67 percent of all refineries, but they accounted for about 90 percent of the number shut down.

The number of operable, smaller refineries has decreased significantly since 1980, while the number of larger refineries has decreased only slightly (see Figure 3). In 1980, there were 91 refineries with a capacity of 10 thousand barrels per day or less; by the end of 1982, there were only 44 operable refineries of this size. During the same period, the number of larger refineries (those with capacities over 175 thousand barrels per day) dropped from 27 to 23. The largest refinery that closed was the Dow Chemical U.S.A. refinery in Freeport, Texas, which had a capacity of 190 thousand barrels per day.

Refinery Complexity

The refineries that were shut down in 1982 were, in general, less complex than the average U.S. refinery (see Table 2). Thirty-six of the 57 shutdown refineries had no vacuum distillation, catalytic cracking, hydrocracking, catalytic hydrotreating, or catalytic hydrotreating equipment. These downstream processes are used to increase the output of light products, to remove sulfur and metals from a variety of feedstocks and to improve the quality and yield of gasoline. Several of the other 21 shutdown refineries were quite large and complex. Together all 21 had 1.1 million barrels per day of downstream facilities, 4 percent of the nation's total at the beginning of 1982.

Refineries with substantial downstream capabilities usually have an economic advantage over less complex refineries because of economies of scale and because they can produce more of the higher-priced, lighter products from less costly crude oil (i.e. heavy, high-sulfur). Because they lacked downstream flexibility, most of the shutdown refineries could process only sweet and light, low-sulfur crude oils. In early 1982, U.S. refiners projected that, on the average, 54 percent of their crude oil inputs during 1982 would be sweet, low-sulfur, and light, medium-sulfur crude oils. For approximately two-out-of-three of the shutdown refineries, owners projected that their crude oil inputs would be entirely sweet crude oil or light, medium-sulfur crude oil.

Most of the shutdown refineries were designed to produce less of the lighter transportation fuels and more of the heavier products such as residual fuel oil and asphalt than the national average. Average yields for the shutdown refineries, projected in January 1982 for the remainder of the year, were 41 percent motor gasoline, 18 percent distillate fuel oil, and 24 percent residual fuel oil. Average yields of these products for all U.S. refineries, projected in January 1982, were 47 percent, 18 percent, and 9 percent, respectively.⁴

²Energy Information Administration *Petroleum Supply Monthly*, DOE/EIA-0108(8302) Washington D.C.: February 1983, p. 18

³*Petroleum Supply Monthly*, Table 15.

⁴*Petroleum Supply Annual*, Table 7.

Table 1. Refineries Shutdown Between January 1, 1982 and December 1, 1982.

District/Refinery	Location	Crude Distillation Capacity (B/C/D)	Total Downstream Capacity (B/S/D)	Years in Operation
East Coast (PAD District I)				
Amoco Oil Co.	Baltimore, Maryland	15,000	0	25+
Ashland Oil, Inc.	Buffalo, New York	64,000	37,200	25+
Seminole Refining, Inc.	St. Marks, Florida	15,000	10,000	25+
Total		94,000	97,200	—
Midwest (PAD District II)				
Amoco Oil Co.	Sugar Creek, Missouri	104,000	186,800	25+
Ashland Oil, Inc.	Findlay, Ohio	20,400	12,000	25+
CRA, Inc.	Scottsbluff, Nebraska	8,600	3,680	25+
CRA, Inc.	Phillipsburg, Kansas	28,400	32,100	25+
Dillman Oil Recovery, Inc.	Ohleng, Illinois	1,200	0	4
E-Z Serv Refining, Inc.	Shallow Water, Kansas	9,800	0	25+
Energy Cooperative, Inc.	East Chicago, Indiana	126,000	190,000	25+
Industrial Fuel & Asphalt of Indiana, Inc.	Hammond, Indiana	7,600	0	25+
Kentucky Oil & Refining Co.	Batay Lane, Kentucky	3,000	0	25+
Mid-America Refining Co. Inc.	Chanute, Kansas	3,000	1,800	25+
Northland Oil & Refining Co.	Dickinson, North Dakota	6,000	0	7
Phillips Petroleum Co.	Kansas City, Kansas	80,000	166,700	25+
Texaco, Inc.	West Tulsa, Oklahoma	60,000	69,000	25+
Texas America Petrochemicals Inc.	West Branch, Michigan	11,500	3,200	25+
Total		463,200	673,950	—
Gulf Coast (PAD District III)				
Bayou State Oil Corp.	Houston, Louisiana	3,000	0	25+
Brasco Refining Co.	Houston, Texas	2,280	0	1
Caribou-Pour Carners Oil Co.	Kirland, New Mexico	2,400	1,200	17
Clinton Manges	Falentine, Texas	5,000	0	25+
Copano Refining Co.	Ingleside, Texas	11,100	0	4
Dow Chemical U.S.A.	Frisport, Texas	190,000	143,000	1
Eagle Refining Corp.	Jacksonboro, Texas	1,800	0	1
Hunt Industries, Inc.	Farmington, New Mexico	13,800	5,000	7
Independent Refining Corp.	Pt. Neches, Texas	30,000	0	4
Independent Refining Corp.	Winnia, Texas	60,000	63,000	23
Lake Charles Refining Co.	Lake Charles, Louisiana	28,000	0	2
Liso Refining Co.	Dumas, Texas	3,500	0	4
Longview Refining Co.	Longview, Texas	14,000	14,000	25+
Natchez Refining Co.	Natchez, Mississippi	16,000	0	2
Petraco-Valley Oil & Refining Co.	Brownsville, Texas	12,300	0	2
Placid Oil Co.	Mont Belvieu, Texas	3,500	0	2
Quilman Refining Co.	Quilman, Texas	6,600	0	4
Rio Grande Crude Refining	Brownsville, Texas	9,500	0	3
Rio Grande Recovery Systems, Inc.	Brownsville, Texas	1,000	0	2
Schluske Processing, Inc.	Tallulah, Louisiana	1,760	0	4
Terry Refining, Inc.	Corpus Christi, Texas	26,000	0	4
Isperid Oil Co.	Jennings, Louisiana	10,000	0	4
Loose Refining Co.	Darrow, Louisiana	3,000	32,200	2
'S Refining, Inc.	Jennings, Louisiana	10,500	0	2
ARCO	Eufora, Texas	6,000	0	20
Upstream Refining Co.	Wickert, Texas	7,320	0	4
Vicksburg Refining Co.	Vicksburg, Mississippi	7,900	0	4
Wickert Refining Co.	Wickert, Texas	3,000	0	25+
Total		493,930	266,400	—

Barrels per Calendar Day
Barrels per Stream Day

Table 1. Refineries Shutdown Between January 1, 1982 and December 1, 1982 (Cont'd)

District/Refinery	Location	Crude Distillation Capacity (B/C/D)	Total Downstream Capacity (B/S/D)	Years in Operation
Rocky Mountain (PAD District IV)				
C & H Refinery, Inc.	Lusk, Wyoming	180	0	25+
Caribou-Four Corners Oil Co.	Woods Cross, Utah	7,200	5,400	19
Gleazier Park Co.	Osgo, Wyoming	10,000	0	4
Husky Oil Co.	Cody, Wyoming	11,500	17,500	25+
Morrison Petroleum Co.	Woods Cross, Utah	6,800	0	8
Sage Creek Refining Co.	Cowley, Wyoming	1,000	0	17
Taxaco, Inc.	Casper, Wyoming	21,000	35,400	25+
Total		57,180	58,700	—
West Coast (PAD District V)				
Gibson Oil & Refining Co.	Bakersfield, California	4,600	0	3
Lundey-Thayer Oil Co.	South Gate, California	12,000	0	14
Sabre Oil & Refining, Inc.	Bakersfield, California	10,000	0	10
United Independent Oil Co.	Tacoma, Washington	730	0	7
West Coast Oil Co.	Oilfield, California	21,000	0	25+
Total		48,330	0	—
U.S. Total		1,146,840	1,088,250	—

B/C/D = Barrels per Calendar Day

B/S/D = Barrels per Stream Day

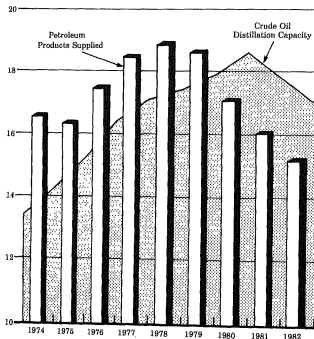
Table 2. Capacity of U.S. Refineries Compared with Capacity of Shutdown Refineries

Type of Capacity	Total U.S. Capacity ¹	Total Shutdown Capacity ¹	Shutdown as a Percent of Total Capacity
Crude Oil Distillation	17,889.7	1,146.6	6.4
Vacuum Distillation	7,197.2	241.1	3.3
Catalytic Cracking	6,036.9	223.2	3.7
Catalytic Reforming	3,988.3	129.6	3.3
Catalytic Hydrocracking	892.1	4.2	0.5
Catalytic Hydrorefining and Hydrotreating	8,639.4	490.3	5.4

¹Capacity as of January 1, 1982.

Note: Crude oil distillation capacity in thousand barrels per calendar day; all other types of capacity in thousand barrels per stream day.

Figure 2. U.S. Refinery Capacity and Petroleum Products Supplied (Million Barrels per Day)



Source: *Petroleum Supply Monthly* 1982; *Petroleum Supply Annual* 1981; *Petroleum Statement Annual* 1975-1979.

Refinery Location

Almost half of the refineries that closed during 1982 were in the Gulf Coast region, which had 46 percent of the nation's crude oil distillation capacity at the beginning of 1982. The closings there accounted for 494 thousand barrels per day, 6 percent of the region's capacity and 43 percent of the total amount shutdown in 1982. However, at the end of 1982, the Gulf Coast had increased its share of the U.S. crude oil distillation capacity from 46 percent to 47 percent (see Table 3).

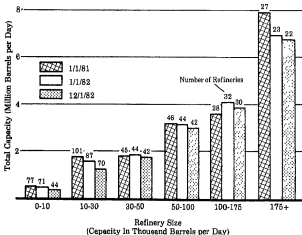
The Midwest, which had 23 percent of U.S. crude oil distillation capacity at the beginning of 1982, had 14 refineries shut down and lost 453 thousand barrels per day, 11 percent of the region's capacity and 40 percent of the total amount shutdown in 1982. This was the largest percentage loss of capacity for any region. During 1982, the Midwest region's share of U.S. distillation capacity dropped from 23 percent to 21 percent.

In the 3 remaining regions, East Coast, Rocky Mountain, and West Coast, the refinery shutdowns accounted for 94 thousand, 57 thousand, and 48 thousand barrels per day, respectively. Between January 1, 1982, and December 31, 1982, the East Coast's and the Rocky Mountain's shares of capacity remained about the same at about 10 percent and about 3.5 percent, respectively. During the same period, the West Coast's share of U.S. crude oil distillation capacity grew slightly from 17.5 percent to 18.6 percent.

Conclusion

During 1982, 57 of the 301 refineries that were operable at the beginning of the year were shut down. These shutdown refineries had a crude oil distillation capacity of 1.1 million barrels per day, 6 percent of the distillation capacity on January 1, 1982. Also at these locations, 1.1 million barrels per day of downstream facilities were closed (4 percent of the nation's total). The shutdown refineries can be divided into two

Figure 3. U.S. Refinery Capacity by Refinery Size



Source: Forms EIA-177 (1981), EIA-87 (1982)

major age categories: a group of older refineries which had been in operation 25 years or more; and a group of newer refineries which had been in operation less than 5 years and which tended to be smaller and less complex than the average U.S. refinery. The net result of refin-

ery shutdowns and additions during 1982 was a shift in the shares of U.S. crude oil distillation capacity predominantly to the Gulf Coast, to a lesser extent to the West Coast, and away from the Midwest.

Table 3. Refinery Capacity by Region
(Thousand Barrels per Calendar Day)

	East Coast (PADD 1)	Midwest (PADD 2)	Gulf Coast (PADD 3)	Rocky Mountain (PADD 4)	West Coast (PADD 5)	U.S. Total
Total Capacity (Jan. 1, 1982)	1,825	4,085	8,271	835	3,124	17,890
1982 Shutdowns	94	453	494	57	48	1,147
1982 Net Additions	31	-23	162	11	83	264
Total Capacity (Dec. 1, 1982)	1,762	3,609	7,939	889	3,159	17,008

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

U.S. Petroleum Imports and Exports

The major developments in U.S. trade during 1982 were the continued sharp decline of crude oil imports, the emergence of Mexico as the leading foreign supplier of petroleum to the United States, and the growth in petroleum product exports to the highest level ever. The decrease in imports and the shift in supply sources continue the recent trend toward greater U.S. oil supply security. Because domestic production has remained fairly constant, the drop in imports is associated with the decline in domestic demand.

Imports

During 1982, gross U.S. imports (crude oil and petroleum products) averaged 5.0 million barrels per day, continuing the downward trend since 1979. Imports had peaked earlier in 1977 at an average of 8.5 million barrels per day (see Figure 4).¹ The 1982 imports level was 43 percent below the 1977 peak and 16 percent below the 1981 level.

Three major factors contributed to the declining U.S. dependence on petroleum imports:

- **Price-induced Conservation.** Real fuel price increases in 1979, 1980, and 1981, spurred conservation. The refiner acquisition cost of imported crude oil for 1981 averaged \$37.05 per barrel, approximately 2.5 times the 1977 price.² Although the refiner acquisition cost of crude oil dropped in 1982, new automobile efficiencies, better-insulated buildings, and other similar investments in conservation contributed to lower petroleum consumption during 1982.
- **Stock Withdrawals.** Withdrawals from petroleum inventories (excluding the Strategic Petroleum Reserve [SPR] inventories) averaged 337 thousand barrels per day. This is substantially greater than the 176-thousand-barrel-per-day

¹Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109(83/02) (Washington, D.C.: February 1983), p. 19.

²Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0036(83/01) (Washington, D.C.: January 1982), p. 80.

drawdown (excluding SPR) during 1981.

- **Economic Activity.** The low level of economic activity contributed to the 6-percent decline in petroleum consumption (measured as product supplied for domestic use) during 1982.

Total petroleum imports peaked in 1977, declined in 1978, increased in 1979, and then declined each subsequent year (see Figure 4). While import quantities have declined since 1977 their values increased and attained a record level of \$79 billion dollars in 1980 (see Figure 5).² During 1982, both import quantities and their values declined. The divergence in quantities and values in 1979 and 1980 reflects the rapid rise in cost per barrel for petroleum imports. The refiner acquisition cost of imported crude oil averaged \$14.55 per barrel for the 1977-1978 period; then

the cost rose to \$21.67 per barrel in 1979 and continued to increase to a peak average of \$37.06 per barrel in 1981. Preliminary statistics indicate that the average price during 1982 was about \$3 per barrel lower.⁴

Crude oil imports averaged 3.5 million barrels per day in 1982, 48 percent below the 1977 average and 21 percent below the 1981 average. This decline occurred despite imports for the SPR which averaged 165 thousand barrels per day, compared with 21 thousand barrels per day during 1977.³

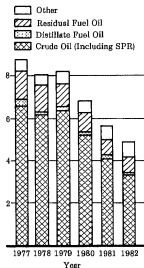
Petroleum product imports declined slightly during 1982. Residual fuel oil imports have declined consistently since

²Department of Commerce, Bureau of the Census, *Summary of U.S. Export and Import Merchandise Trade*, FT-900 (Washington, D.C.: December 1977-82).

³*Monthly Energy Review*, p. 80.

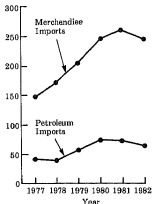
⁴*Petroleum Supply Monthly*, p. 22.

Figure 4. Petroleum Imports
(Million Barrels per Day)



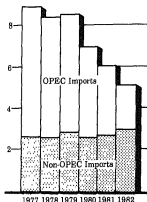
Source: *Petroleum Supply Monthly*, February 1983

Figure 5. Value of Petroleum and Merchandise Imports,
(Billion Dollars)



Source: U.S. Department of Commerce, Bureau of the Census, "Summary of U.S. Export and Import Merchandise Trade," FT 900.

Figure 6. U.S. Imports from OPEC and Non-OPEC Sources
(Million Barrels per Day)



Source: *Petroleum Supply Monthly*, February 1983

1976; they averaged 758 thousand barrels per day in 1982, 5 percent below the average for 1981 and 46 percent below the peak for 1976.* This decline is attributable mainly to the decreased demand for residual fuel oil because of fuel switching, especially in the electric-utility sector and reduced industrial activity. The industrial and electric utility sectors account for about two-thirds of residual fuel oil consumption.

Distillate fuel oil imports averaged 93 thousand barrels per day during 1982, 46 percent below the 1981 level and 63 percent below the 1977 level.[†] Distillate fuel oils are used primarily for diesel-engine fuel, space heating, and electric power generation. The economic recession contributed to the drop in distillate fuel oil imports.

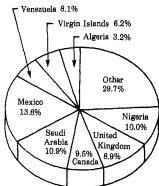
Declining Reliance on OPEC Imports

During the past 5 years, the relative importance of foreign sources as suppliers of U.S. imports has changed. Members of the Organization of Petroleum Exporting Countries (OPEC), Saudi Arabia in particular, have become less dominant as U.S. suppliers, while non-OPEC countries, especially Mexico and the United Kingdom, have become more important.

Through the mid-1970's, the volumes of U.S. imports from OPEC countries grew steadily to a peak average during 1977 of 6.2 million barrels per day, nearly 70 percent of the U.S. total. That year Saudi Arabia and Nigeria each exported more than 1 million barrels per day of petroleum to the United States, while Venezuela and Libya each exported about 700 thousand barrels per day to the United States.[‡]

U.S. imports from OPEC countries have dropped off substantially since 1978. During 1982, OPEC supplied 2.1 million barrels per day, about 42 percent of the U.S. import total. Saudi Arabia and Nigeria each provided less than half of the amounts that they did in 1978. Other OPEC countries showed similar decreases. U.S. imports from Algeria, over 800 thousand barrels per day in 1978,

Figure 7. Petroleum Imports by Source, 1982.



Source: *Petroleum Supply Monthly*, February 1983

*Petroleum Supply Monthly, p. 32.

†Petroleum Supply Monthly, p. 27.

‡Petroleum Supply Monthly, p. 37.

were down to 181 thousand barrels per day in 1982, and imports from Venezuela were down to 408 thousand barrels per day. Petroleum imports from Iran, over 500 thousand barrels per day in 1978, were cut off in early 1980 and were resumed in June 1982 and averaged 35 thousand barrels per day in 1982.⁹ Crude oil imports from Libya were eliminated by a U.S. embargo in the spring of 1982.

U.S. petroleum imports from non-OPEC countries have grown only slightly in volume since 1976, but they have come to represent a far larger share of the U.S. total. In 1976, non-OPEC countries supplied 2.6 million barrels per day, or about 30 percent of U.S. imports. That

year, U.S. imports from Canada, at 467 thousand barrels per day, were the largest from any non-OPEC country.¹⁰ By 1982, petroleum imports from non-OPEC countries of 2.9 million barrels per day represented 58 percent of U.S. imports. During 1980, Mexico became the largest non-OPEC supplier of petroleum to the United States. By 1982, Mexico was exporting an average of 884 thousand barrels per day of petroleum

⁹Petroleum Supply Monthly, p. 37.

¹⁰Energy Information Administration, Supply, Disposition, and Stocks of All Oils by Petroleum Administration for Defense Districts, and Imports of Petroleum, by County, Annual, (Washington D.C.: 1977-1981); Petroleum Supply Monthly, p. 38.

Table 4. Imports of Crude Oil and Petroleum Products by Country of Origin, 1982.

(Thousand Barrels per Day)

	Crude Oil	Residual Fuel Oil	LPG and Ethane	Finished Motor Oseoline	Distillate Fuel Oil	Other Products	Total Imports
Mexico	644	22	17	(a)	1	1	884
Saudi Arabia	527	2	3	0	0	16	648
Nigeria	502	3	0	0	(a)	(a)	605
Canada	213	23	193	7	9	31	477
United Kingdom	486	4	1	3	0	6	461
Venezuela	164	203	2	4	5	40	408
Virgin Islands	0	122	0	59	52	82	315
Indonesia	223	8	4	7	3	(a)	245
Netherlands							
Antilles	0	139	0	5	1	28	173
Algeria	86	87	2	0	1	6	161
Other Countries	876	166	3	101	21	110	1,077
Total	3,460	768	225	186	93	319	5,041

Source: Petroleum Supply Monthly (March 1982 through February 1983), Table 21.

(a)=less than one half unit.

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

Table 5. U.S. Exports of Crude Oil and Petroleum Products by Country of Destination, 1982

(Thousand Barrels per Day)

	Crude Oil	Residual Fuel Oil	Petroleum Coke	Distillate Fuel Oil	LPG and Ethane	Other Products	Total
Virgin Islands	113	2	(a)	1	(a)	(a)	116
Puerto Rico	72	14	1	(a)	1	7	95
Canada	36	11	9	(a)	24	6	86
Netherlands	0	47	22	9	5	2	86
Japan	0	15	35	16	(a)	3	88
Mexico	0	1	1	12	20	19	63
Italy	0	8	14	2	8	5	32
Korea							
Republic of	0	23	1	4	(a)	(a)	28
Spain	0	2	18	1	(a)	3	24
France	0	3	10	4	3	4	24
Other Countries	15	83	46	26	9	27	206
Total	226	209	166	74	66	76	816

Source: Petroleum Supply Monthly (March 1982 through February 1983), Table 23.

(a)=less than one half unit.

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

to the United States, more than any other country. Canada, with 477 thousand barrels per day, and the United Kingdom with 451 thousand barrels per day, were the second and third largest non-OPEC suppliers.¹¹

Price was a major reason for the U.S. shift to petroleum imports from non-OPEC sources. In 1978, the landed costs of crude oil imports from most major foreign suppliers were within one dollar of each other, with Saudi Arabian crude oil at \$13.92, Nigerian crude oil at \$14.86, Mexican crude oil at \$13.54, and Canadian crude oil at \$14.50 per barrel. By 1982, the price differences between OPEC and non-OPEC crude oils were much greater. Non-OPEC crude oils were consistently less expensive than the crude oils from OPEC countries. In October 1982, the landed costs of Saudi Arabian and Nigerian crude oils were, respectively, \$35.21 per barrel and \$36.09 per barrel; while the landed costs of crude oils from Canada, Mexico, and

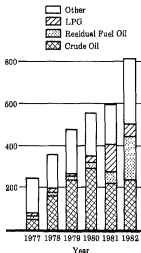
the United Kingdom were \$25.94, \$28.32, and \$34.24 per barrel, respectively.¹²

Exports

During 1982, total petroleum exports averaged 815 thousand barrels per day. Refined product exports made up about 70 percent of this total, and crude oil exports made up the remaining 30 percent. U.S. petroleum exports have increased sharply over the past 5 years, from 243 thousand barrels per day during 1977, to 544 thousand barrels per day in 1980, and to the 1982 level of 815 thousand barrels a day, the highest petroleum export level ever.¹³ These increases were primarily in exports of petroleum products. A major reason for the 1982 growth in product exports was the relaxation of product export restrictions in 1981. The total value of the petroleum exported by the United States during 1982 was \$5.9 billion.¹⁴

Exports of petroleum products averaged 579 thousand barrels per day during 1982, 124 percent above the 1980 average, and 200 percent above the 1977 average. Residual fuel oil, petroleum coke, distillate fuel oil, and liquefied petroleum gases (LPG) were the major products exported by the United States. Western Europe, Japan, Canada, and Mexico were the major recipients of U.S. exports (see Table 5). During 1982 U.S. exports of residual fuel oil averaged 209 thousand barrels per day; 22 percent of these exports went to the Netherlands. Petroleum coke exports averaged 168 thousand barrels per day during 1982; 22 percent of these exports went to Japan. Distillate fuel oil exports during 1982 averaged 74 thousand barrels per day; 20 percent of these exports went to Japan and another 18 percent went to Mexico. LPG exports during 1982 averaged 85 thousand barrels per day; 37 percent of these exports went to Canada and another 31 percent went to Mexico.¹⁵ These four products together

Figure 8. Petroleum Exports
(Thousand Barrels per Day)



Source: *Petroleum Supply Monthly*,
February 1983

¹¹*Petroleum Supply Monthly*, p. 38.

¹²*Monthly Energy Review*, p. 53.

¹³*Petroleum Supply Monthly*, p. 19.

¹⁴Bureau of the Census, *Highlights of U.S. Import and Export Trade*, Annual, FT-990 (Washington, D.C.: 1983), Table E-2.

¹⁵*Petroleum Supply Monthly*, Table 23.

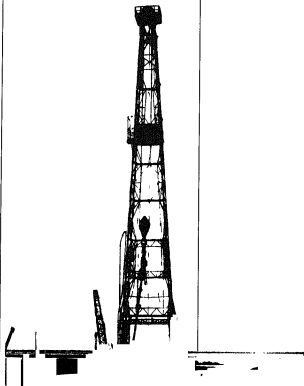
made up more than 85 percent of the 1982 petroleum product export total.

During 1982, crude oil exports averaged 236 thousand barrels per day, just 8 thousand barrels per day more than was exported during 1981. The 1982 crude oil exports consisted of 200 thousand barrels per day shipped to U.S. territories (including Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone) and 36 thousand barrels exchanged with Canada on a barrel-for-barrel basis for crude oil of comparable

quality. Although exports are actually prohibited by law, the tracking system for imports and exports counts these shipments and exchanges as exports.

Outlook

The downward trend in petroleum imports is not expected to continue. However, future import levels will depend to a large extent on changes in economic activity, crude oil availability, and prices.



Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²		Ending Stocks ³	
		Total Dom. ⁴	Crude Oil	Natural Gas Plant Production	Crude Oil ⁵	Petroleum Products	Crude Oil ² and Petroleum Products	
							Millions of Barrels	
Thousand Barrels per Day								
1973	AVERAGE	10,875	8,208	1,739	11	-148	17,308	1,008
1974	AVERAGE	10,480	8,774	1,088	-62	-117	16,883	1,074
1975	AVERAGE	10,045	8,375	1,033	-17	-146	16,322	1,133
1976	AVERAGE	9,774	8,152	1,003	-39	38	17,461	1,112
1977	AVERAGE	9,913	8,246	1,818	-170	-378	16,431	1,312
1978	AVERAGE	10,329	8,707	1,587	-78	172	16,847	1,278
1979	AVERAGE	10,179	8,552	1,584	-148	-26	16,613	1,341
1980	AVERAGE	10,214	8,587	1,573	-88	-42	17,058	1,382
1981	January	10,231	8,540	1,852	50	1,159	18,430	1,385
	February	10,284	8,604	1,853	-278	250	16,889	1,389
	March	10,272	8,613	1,824	-632	224	15,907	1,401
	April	10,185	8,557	1,599	-595	148	15,350	1,415
	May	10,160	8,501	1,583	-391	-374	15,353	1,438
	June	10,287	8,829	1,584	-135	408	15,096	1,430
	July	10,088	8,500	1,548	-380	91	15,882	1,438
	August	10,243	8,583	1,614	357	-689	15,293	1,457
	September	10,261	8,604	1,612	-285	-341	15,855	1,478
	October	10,225	8,563	1,588	-760	477	15,822	1,485
	November	10,269	8,588	1,630	-325	-233	15,883	1,501
	December	10,220	8,585	1,580	-170	745	16,598	1,484
	AVERAGE	10,230	8,572	1,606	-290	130	16,068	
1982	January	10,257	8,689	1,548	-238	1,129	15,800	1,481
	February	10,251	8,630	1,524	-218	1,298	15,841	1,431
	March	10,212	8,587	1,570	-65	1,049	15,580	1,401
	April	10,298	8,682	1,588	107	1,594	16,048	1,380
	May	10,223	8,660	1,520	49	-34	14,845	1,349
	June	10,242	8,681	1,505	86	-515	14,931	1,362
	July	10,228	8,649	1,521	-155	-885	14,771	1,394
	August	10,301	8,701	1,543	-460	4	14,838	1,407
	September	10,306	8,733	1,513	252	-489	14,821	1,418
	October	10,263	8,676	1,540	-564	-55	14,820	1,434
	November	10,377	8,660	1,634	-357	-357	16,031	1,455
	December*	10,348	8,680	1,638	R 143	R 703	R 15,508	R 1,429
	AVERAGE	10,270	8,671	1,564	-117	280	16,253	
1983	January**	NA	8,634	NA	-293	1,137	15,318	1,414

¹ Includes lease condensate.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Ending stocks for 1973-1980 are totals as of December 31.

⁴ Includes crude oil, natural gas plant production, other hydrocarbons and alcohol.

⁵ Includes stocks located in the Strategic Petroleum Reserve.

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

NA = Not available. R = Revised data

* See Explanatory Note 5.1.

** Italics denote preliminary data. See Explanatory Note 2.7.

Note: Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Crude Oil¹ and Petroleum Products Overview (continued)

		Imports ²			Exports ³			
		Total	Crude Oil ⁴	Petroleum Products	Total	Crude Oil	Petroleum Products	Net ⁵ Imports
Thousand Barrels per Day								
1973	AVERAGE	6,256	3,244	3,012	231	2	229	6,026
1974	AVERAGE	6,112	3,477	2,635	221	3	218	5,892
1975	AVERAGE	6,056	4,105	1,951	209	8	204	5,848
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	2,006	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	256	6,366
1981	January	6,827	4,032	1,895	558	339	219	6,270
	February	6,772	4,673	1,889	568	198	371	6,203
	March	6,028	4,521	1,507	568	210	378	5,442
	April	5,668	4,336	1,330	570	196	372	6,038
	May	5,775	4,287	1,489	595	312	283	5,180
	June	5,435	4,081	1,376	420	123	297	5,015
	July	5,816	4,296	1,521	571	257	314	5,245
	August	5,767	4,179	1,580	644	204	440	5,123
	September	6,365	4,740	1,624	519	194	325	5,845
	October	5,959	4,380	1,579	738	228	512	5,221
	November	5,741	4,046	1,695	701	278	423	6,041
	December	5,843	4,137	1,706	655	189	467	5,187
	AVERAGE	5,996	4,366	1,638	595	228	367	5,401
1982	January	5,232	3,648	1,585	829	238	591	4,404
	February	4,691	2,949	1,742	804	304	499	3,887
	March	4,461	2,866	1,606	882	321	561	3,579
	April	4,266	2,813	1,474	786	174	611	3,501
	May	4,784	3,314	1,471	803	282	542	3,981
	June	5,227	3,782	1,445	703	94	609	4,524
	July	5,763	4,245	1,518	741	229	512	4,022
	August	6,156	3,820	1,336	858	304	554	4,298
	September	5,369	3,603	1,757	791	164	606	4,580
	October	5,230	3,636	1,894	932	270	662	4,258
	November	5,728	3,863	1,864	786	282	524	4,940
	December*	R 4,562	R 2,956	R 1,606	880	193	667	3,702
	AVERAGE	5,041	3,461	1,581	815	238	579	4,226
1983	January**	4,304	3,019	1,285	NA	NA	NA	NA

¹ Includes lease condensate.

² Includes shipments from United States possessions and territories.

³ Includes shipments to United States possessions and territories.

⁴ Includes crude oil for storage in the Strategic Petroleum Reserve.

⁵ Net Imports = Imports minus Exports.

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

NA = Not available. R = Revised data.

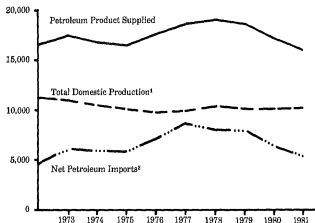
* See Explanatory Note 5.1.

** Italics denote preliminary data. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Petroleum Overview, Annual (Thousand Barrels per Day)



¹Includes crude oil and natural gas plant production.

²Includes SPR imports.

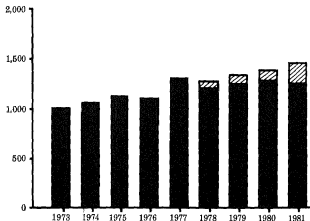
Source table: "Crude Oil and Petroleum Products Overview."

Crude Oil and Petroleum Products Ending Stocks, Annual (Millions of Barrels)

Legend

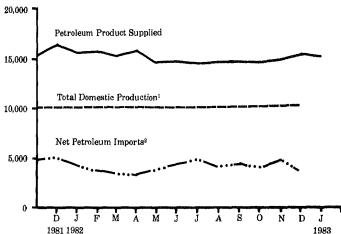
▨ SPR Crude Oil

■ Crude Oil and Petroleum Products, Excluding SPR



Source tables: "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

Petroleum Overview, Monthly (Thousand Barrels per Day)



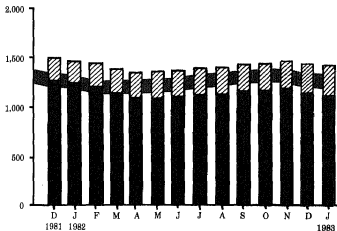
¹Includes crude oil and natural gas plant production.

²Includes SPR imports.

Source table: "Crude Oil and Petroleum Products Overview."

Crude Oil and Petroleum Product Ending Stocks, Monthly (Millions of Barrels)

Legend
 ▨ SPR Crude Oil
 ■ Crude Oil and Petroleum Products, Excluding SPR
 ▨ Average Stock Range¹



¹Average stock range (excluding SPR) based on 3 years of data. See explanatory Note 2.5.

Source tables: "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

Crude Oil¹ Supply and Disposition

		Supply						
		Field Production		Imports ²			Stock Withdrawal ³	
		Total Domestic	Alaskan	Total	SPR ⁴	Other	SPR ⁴	Other
/ Thousand Barrels per Day								
1973	AVERAGE	9,208	199	3,244		3,244		11
1974	AVERAGE	9,774	193	3,477		3,477		-62
1976	AVERAGE	9,376	191	4,106		4,106		-17
1978	AVERAGE	8,132	173	5,287		5,287		-39
1977	AVERAGE	9,246	494	5,916	21	6,094	-20	-160
1979	AVERAGE	8,707	1,229	6,359	182	6,195	-163	54
1978	AVERAGE	8,552	1,401	5,510	67	5,462	-67	-61
1980	AVERAGE	8,697	1,517	5,283	44	6,219	-46	-52
1981	January	8,540	1,696	4,832	106	4,826	-151	201
	February	8,604	1,619	4,673	80	4,793	-127	-150
	March	8,613	1,618	4,521	140	4,382	-155	-477
	April	8,557	1,606	4,336	272	4,068	-444	-151
	May	8,501	1,580	4,267	366	3,901	-513	122
	June	8,629	1,832	4,081	318	3,743	-434	299
	July	8,500	1,805	4,296	175	4,121	-324	-38
	August	8,563	1,802	4,179	257	3,922	-372	789
	September	8,804	1,807	4,740	435	4,305	-466	201
	October	8,963	1,996	4,380	453	3,927	-501	-259
	November	8,568	1,814	4,046	271	3,774	-269	-66
	December	8,586	1,823	4,137	165	3,971	-292	62
		AVERAGE	8,672	1,809	4,396	268	4,141	-338
1982	January	8,689	1,712	3,848	170	3,476	-159	-77
	February	8,690	1,715	2,949	199	2,790	-213	-3
	March	8,697	1,702	2,668	165	2,671	-235	170
	April	8,652	1,667	2,813	190	2,623	-233	341
	May	8,660	1,725	3,314	204	3,110	-176	225
	June	8,651	1,675	3,762	105	3,676	-105	191
	July	8,649	1,715	4,245	97	4,147	-87	-86
	August	8,701	1,809	3,620	206	3,611	-206	-233
	September	8,733	1,707	3,633	139	3,463	-143	396
	October	8,676	1,677	3,636	216	3,420	-216	-346
	November	8,690	1,667	3,983	160	3,663	-179	-177
	December*	8,690	1,663	R 2,958	R 124	R 2,832	R -126	R 267
		AVERAGE	8,671	1,805	3,481	186	3,298	-174
1983	January**	8,634	1,698	3,019	169	2,830	-206	-87

¹ Includes lease condensate.

² Includes shipments from United States possessions and territories.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴ Strategic Petroleum Reserve.

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

NA = Not available. R = Revised data.

* See Explanatory Note 9.2.

** Italics denote preliminary data. See Explanatory Note 2.7.

Note: Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic coverage: The 90 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Crude Oil¹ Supply and Disposition (continued)

		Supply (Continued)		Disposition		Ending Stocks ²		
		Unac- counted for Crude Oil	Crude Used Directly and Leases	Refinery Inputs	Exports ³	Total Crude Oil	SPR ⁴	Other Primary
		Thousand Barrels per Day				Millions of Barrels		
1973	AVERAGE	3	-32	12,431	2	242		242
1974	AVERAGE	-25	-28	12,133	3	285		285
1975	AVERAGE	17	-30	12,442	8	271		271
1976	AVERAGE	77	-33	15,418	8	288		288
1977	AVERAGE	-8	-30	14,502	60	348	7	340
1978	AVERAGE	-57	-30	14,738	168	378	87	309
1979	AVERAGE	-11	-28	14,848	235	430	91	339
1980	AVERAGE	34	-28	13,481	267	488	108	368
1981	January	113	-49	13,247	338	488	112	374
	February	-41	-58	12,902	198	484	115	378
	March	154	-63	12,985	210	514	121	393
	April	51	-62	12,091	168	532	134	397
	May	288	-52	12,304	312	644	150	394
	June	48	-55	12,415	129	548	183	385
	July	147	-65	12,261	257	559	173	388
	August	16	-69	12,908	204	547	186	382
	September	-295	-65	12,505	194	655	188	356
	October	168	-68	12,057	228	578	215	354
	November	276	-88	12,240	278	588	223	368
	December	52	-57	12,349	188	584	230	363
	AVERAGE	83	-63	12,470	228			
1982	January	-138	-66	11,838	238	608	235	371
	February	108	-69	11,252	304	612	241	371
	March	278	-66	11,277	321	614	248	388
	April	58	-68	11,385	174	611	266	355
	May	105	-65	11,601	252	608	251	348
	June	110	-67	12,498	94	607	284	343
	July	1	-63	12,447	228	612	207	345
	August	140	-59	11,856	304	625	274	352
	September	-218	-58	12,125	164	618	278	340
	October	324	-63	11,750	270	635	285	351
	November	-141	-52	11,741	252	648	280	358
	December*	2	-54	R 11,514	180	R 642	R 284	R 348
	AVERAGE	60	-62	11,776	238			
1983	January**	NA	NA	11,267	NA	658	300	356

¹ Includes lease condensates.² Ending stocks for 1973-1980 are totals as of December 31.³ Includes shipments to United States possessions and territories.⁴ Strategic Petroleum Reserve.

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

NA = Not available. R = Revised data.

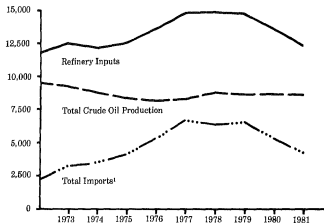
* See Explanatory Note 5.2.

** Italics denote preliminary data. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia.

Source: See "Source" at the end of this section.

Crude Oil Supply and Disposition, Annual (Thousand Barrels per Day)

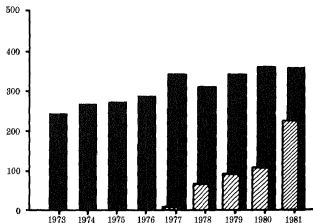


Includes SPR imports.

Source table: "Crude Oil Supply and Disposition."

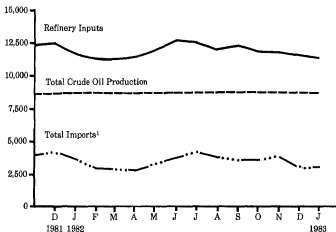
Crude Oil Ending Stocks, Annual (Millions of Barrels)

Legend
 SPR
 Other Primary



Source table: "Crude Oil Supply and Disposition."

Crude Oil Supply and Disposition, Monthly (Thousand Barrels per Day)



¹Includes SPR imports.

Source table: "Crude Oil Supply and Disposition."

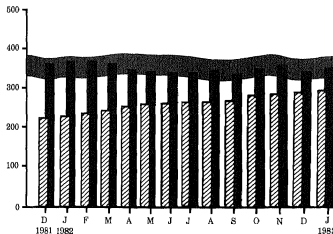
Crude Oil Ending Stocks, Monthly (Millions of Barrels)

Legend

SPR

Other Primary

Average Stock Range¹



¹Average stock range (excluding SPR) based on 3 years of data. See Explanatory Note 2.5.

Source table: "Crude Oil Supply and Disposition."

Finished Motor Gasoline Supply and Disposition

		Supply			Disposition			Ending Stocks		
		Total Production	Imports ¹	Stock Withdrawal ² ³	Exports	Product Supplied			Total Motor Gasoline ³	Finished Motor Gasoline
						Total	Unleaded ⁴	Unleaded		
Thousand Barrels per Day							Percent of Total	Millions of Barrels		
1973	AVERAGE	8,535	134	9	4	8,674	NA	NA	209	
1974	AVERAGE	8,380	204	-24	2	8,537	NA	NA	218	
1975	AVERAGE	6,520	184	-28	2	6,875	NA	NA	235	
1976	AVERAGE	6,841	131	10	3	6,978	NA	NA	231	
1977	AVERAGE	7,033	217	-72	2	7,177	1,976	27.5	266	
1978	AVERAGE	7,169	180	54	1	7,412	2,521	34.0	298	
1979	AVERAGE	8,852	181	2	(*)	7,034	2,798	39.8	287	
1980	AVERAGE	6,508	140	-68	1	6,879	3,087	48.8	281	
1981	January	6,715	138	-421	(*)	6,431	3,141	48.8	278	227
	February	6,308	111	-118	1	6,301	3,085	49.1	284	230
	March	6,215	171	-81	(*)	6,303	3,087	48.1	285	232
	April	6,114	186	303	(*)	6,602	3,284	49.7	272	223
	May	6,122	150	344	1	6,815	3,115	47.1	269	213
	June	6,220	186	622	1	7,028	3,419	48.8	242	194
	July	6,405	181	268	(*)	6,823	3,424	50.2	229	188
	August	6,611	124	-85	3	6,837	3,344	50.4	233	189
	September	6,564	169	-70	2	6,682	3,338	50.1	237	181
	October	6,426	147	7	3	6,578	3,257	49.5	238	180
	November	6,564	148	-338	1	6,373	3,188	50.2	248	201
	December	6,566	187	-91	11	6,681	3,444	51.6	253	203
	AVERAGE	6,406	167	28	2	6,588	3,284	49.5		
1982	January	6,181	114	-358	18	5,820	3,033	51.2	282	214
	February	6,017	133	28	8	6,070	3,145	51.8	282	213
	March	6,034	183	469	44	6,812	3,383	51.4	246	196
	April	6,104	177	541	33	6,890	3,484	50.7	223	180
	May	6,322	163	188	23	6,650	3,415	51.3	215	174
	June	6,767	195	-136	14	6,812	3,561	52.3	220	178
	July	6,788	200	-185	24	6,799	3,574	52.3	228	183
	August	6,447	284	-60	18	6,855	3,520	52.9	228	185
	September	6,530	215	-217	22	6,507	3,386	52.0	234	191
	October	6,263	177	-25	15	6,391	3,380	52.8	234	182
	November	6,273	208	91	11	6,559	3,448	52.8	230	188
	December*	R 6,540	R 178	-164	7	R 6,548	3,488	53.2	R 236	R 194
	AVERAGE	6,347	186	24	20	6,537	3,403	52.1		
1983	January**	6,030	156	NA	NA	5,963	NA	NA	243	201

¹ Beginning in 1981 excludes blending components.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Includes motor gasoline blending components. Ending stocks for 1973-1980 are totals as of December 31.

⁴ Includes gasohol.

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

(*) = Less than 500 barrels. NA = Not available. R = Revised data.

** See Explanatory Note 5.3.

Italics denote preliminary data. See Explanatory Note 2.7.

Notes: Beginning in January 1981, survey forms were modified. See Explanatory Note 4 on Changes for the effects on motor gasoline statistics.

Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ¹
		Total Production	Imports	Stock Withdrawal ²	Crude Used Directly	Exports	Product Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	2,522	382	-115	2	5	3,082	199
1974	AVERAGE	2,669	289	-8	2	2	2,948	200
1975	AVERAGE	2,654	155	40	2	1	2,851	209
1976	AVERAGE	2,924	148	62	1	1	3,133	198
1977	AVERAGE	3,278	250	-176	1	1	3,382	230
1978	AVERAGE	3,167	173	93	1	3	3,432	216
1979	AVERAGE	3,153	193	-34	1	3	3,311	229
1980	AVERAGE	2,862	142	84	1	3	2,868	206
1981	January	2,989	273	836	11	(³)	4,109	179
	February	2,809	325	248	11	17	3,373	173
	March	2,484	147	284	9	(³)	2,904	184
	April	2,413	118	-9	10	3	2,532	185
	May	2,454	179	-232	10	(³)	2,411	172
	June	2,501	225	-270	9	(³)	2,464	180
	July	2,395	179	-204	10	2	2,375	186
	August	2,656	174	-450	8	(³)	2,388	200
	September	2,610	126	-235	10	1	2,513	207
	October	2,485	116	197	9	5	2,803	201
	November	2,716	124	38	11	8	2,880	200
	December	2,858	95	277	11	26	3,212	192
	AVERAGE	2,613	173	38	10	6	2,829	
1982	January	2,615	98	780	10	80	3,410	188
	February	2,447	130	889	11	80	3,187	147
	March	2,294	48	812	10	84	2,881	120
	April	2,357	59	831	13	84	2,896	109
	May	2,618	74	-184	10	75	2,444	114
	June	2,731	100	-335	10	55	2,450	125
	July	2,734	124	-781	11	24	2,084	148
	August	2,526	79	-346	10	40	2,226	159
	September	2,858	59	-77	12	139	2,514	181
	October	2,837	97	-900	8	85	2,585	170
	November	2,863	141	-514	8	24	2,475	186
	December ⁴	R 2,855	R 109	R 226	10	143	R 2,855	R 179
	AVERAGE	2,612	93	32	10	74	2,872	
1983	January**	2,375	63	669	NA	NA	3,056	160

¹ Ending stocks for 1973 - 1980 are totals as of December 31.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

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

(³) = Less than 500 barrels per day. NA = Not available. R = Revised data.

* See Explanatory Note 5.4.

** Italics denote preliminary data. See Explanatory Note 2.7.

Note: Beginning in January 1981, survey forms were modified. See Explanatory Note 4 on Changes for the effects on Distillate Fuel Oil statistics.

Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic coverage: The 50 United States and the District of Columbia.

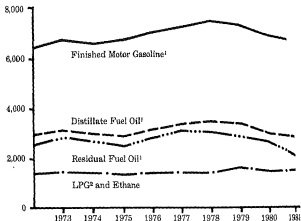
Sources: See "Sources" at the end of this section.

Products Supplied, Annual (Thousand Barrels per Day)

¹Figures for 1979 and 1980 recast to account for data system changes in 1981. See Explanatory Note 4.

²Liquefied Petroleum Gases.

Source tables: "Finished Motor Gasoline Supply and Disposition," "Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition," "Liquefied Petroleum Gases and Ethane Supply and Disposition."



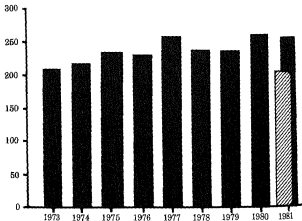
Motor Gasoline¹ Ending Stocks, Annual (Millions of Barrels)

Legend

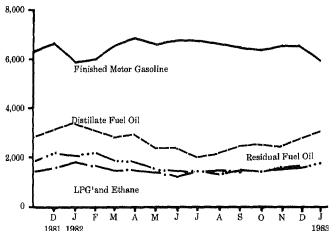
- Total
- ▨ Finished

¹Includes finished motor gasoline blending components.

Source table: "Finished Motor Gasoline Supply and Disposition."



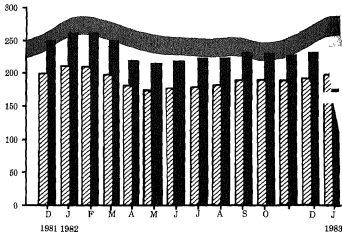
Products Supplied, Monthly (Thousand Barrels per Day)



Motor Gasoline Ending Stocks, Monthly (Millions of Barrels)

Legend

- Total Motor Gasoline¹
- Finished Motor Gasoline
- Average Stock Range²

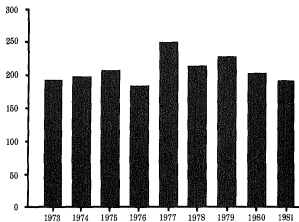


¹Includes finished motor gasoline and blending components.

²Average stock range for total motor gasoline based on 3 years of data. See STATISTICAL NOTE 2.6.

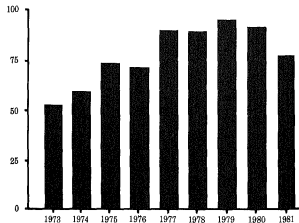
Source: Table: "Finished Motor Gasoline Supply and Disposition."

Distillate Fuel Oil Ending Stocks, Annual (Millions of Barrels)



See table: "Distillate Fuel Oil Supply and Disposition."

Residual Fuel Oil Ending Stocks, Annual (Millions of Barrels)



See table: "Residual Fuel Oil Supply and Disposition."

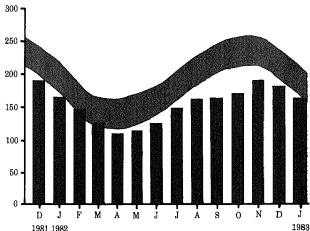
Distillate Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

Legend

 Average Stock Range¹

¹Average stock range based on 8 years of data. See Explanatory Note 2.5.

Source table: "Distillate Fuel Oil Supply and Disposition."



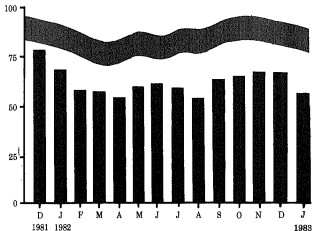
Residual Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

Legend

 Average Stock Range¹

¹Average stock range based on 8 years of data. See Explanatory Note 2.5.

Source table: "Residual Fuel Oil Supply and Disposition."



Residual Fuel Oil Supply and Disposition

		Supply			Disposition		Ending Stock ¹
		Total Production	Imports	Stock Withdrawal ²	Exports	Products Supplied	
		Thousand Barrels per Day					Millions of Barrels
1973	AVERAGE	971	1,853	5	17	23	2,822
1974	AVERAGE	1,070	1,597	-17	13	14	2,839
1976	AVERAGE	1,235	1,223	2	15	15	2,492
1978	AVERAGE	1,377	1,413	5	17	12	2,801
1977	AVERAGE	1,754	1,359	-48	13	8	3,071
1978	AVERAGE	1,887	1,355	-1	13	13	3,023
1979	AVERAGE	1,887	1,151	-15	12	9	2,828
1980	AVERAGE	1,590	838	10	12	33	2,509
1981	January	1,812	1,015	302	32	65	2,896
	February	1,565	854	150	44	125	2,588
	March	1,424	689	100	48	145	2,126
	April	1,320	584	66	49	151	1,868
	May	1,223	741	-170	49	25	1,817
	June	1,232	540	291	49	78	2,037
	July	1,174	830	2	48	82	1,971
	August	1,231	819	-179	50	69	1,852
	September	1,282	841	-176	51	125	1,882
	October	1,238	788	8	54	202	1,884
	November	1,227	880	-49	53	203	1,808
	December	1,328	916	110	52	157	2,250
	AVERAGE	1,321	800	37	48	118	2,089
1982	January	1,183	821	328	53	235	2,150
	February	1,136	828	358	53	213	2,281
	March	1,121	910	26	53	197	1,912
	April	1,162	762	124	52	234	1,857
	May	1,127	738	-175	52	191	1,551
	June	1,077	643	-49	50	217	1,504
	July	1,029	576	51	49	239	1,468
	August	1,007	519	200	47	235	1,538
	September	1,007	871	-302	44	148	1,472
	October	954	758	-58	43	234	1,486
	November	889	843	-85	43	182	1,587
	December*	R 990	R 747	R 8	43	186	R 1,602
	AVERAGE	1,065	759	33	48	209	1,385
1983	January**	1,029	627	385	NA	NA	1,825

¹ Ending Stocks for 1973-1980 are totals as of December 31.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

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

NA = Not available. R = Revised data.

* See Explanatory Note 5.4.

** Italics denote preliminary data. See Explanatory Note 2.7.

Notes: Beginning in January 1981, survey forms were modified.

See Explanatory Note 4 on changes for the effects on residual fuel oil statistics.

Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage.

Geographic Coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Liquefied Petroleum Gases and Ethane Supply and Disposition

		Supply			Disposition			Ending Stocks ¹
		Total Production	Imports	Stock Withdrawal ²	Refinery Inputs	Exports	Product Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	1,600	132	-35	220	27	1,446	99
1974	AVERAGE	1,565	123	-38	220	26	1,406	113
1975	AVERAGE	1,527	112	-35	246	20	1,333	125
1976	AVERAGE	1,536	130	24	260	25	1,404	116
1977	AVERAGE	1,558	181	-66	233	18	1,422	138
1978	AVERAGE	1,537	123	12	238	20	1,413	132
1979	AVERAGE	1,556	217	70	236	15	1,592	111
1980	AVERAGE	1,638	216	-27	233	21	1,489	120
1981	January	1,617	308	383	352	21	1,513	117
	February	1,593	327	173	303	21	1,769	112
	March	1,551	290	-4	287	20	1,530	112
	April	1,568	214	-235	231	28	1,308	119
	May	1,587	186	-256	220	19	1,279	127
	June	1,587	206	-208	237	24	1,304	133
	July	1,507	213	-266	216	17	1,229	141
	August	1,692	165	-242	235	148	1,160	140
	September	1,622	166	-76	267	21	1,438	151
	October	1,593	267	72	320	76	1,556	149
	November	1,671	260	66	363	60	1,465	146
	December	1,468	286	379	426	60	1,624	135
	AVERAGE	1,571	244	-18	289	42	1,466	
1982	January	1,546	314	460	366	67	1,673	122
	February	1,476	291	310	327	61	1,689	114
	March	1,523	223	145	289	74	1,528	109
	April	1,568	168	107	257	77	1,527	108
	May	1,563	166	-61	235	43	1,431	108
	June	1,571	162	-109	262	106	1,288	111
	July	1,558	227	-5	263	37	1,467	111
	August	1,591	126	-44	264	81	1,367	112
	September	1,506	247	33	273	85	1,528	111
	October	1,582	194	62	306	81	1,481	109
	November	1,903	267	172	370	37	1,634	103
	December*	1,926	258	270	395	66	1,702	95
	AVERAGE	1,670	226	116	301	66	1,644	

¹ Ending stocks for 1973 - 1980 are totals as of December 31.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

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

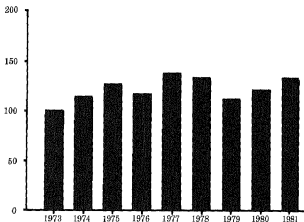
* See Explanatory Note 5.5.

Note: Annual stock changes for 1975 and 1981 were calculated using expended survey coverage.

Geographic coverage: The 60 United States and the District of Columbia.

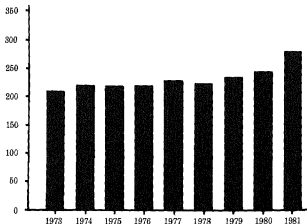
Sources: See "Sources" at the end of this section.

Liquefied Petroleum Gases and Ethane Ending Stocks, Annual
(Millions of Barrels)



Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."

Other Petroleum Products¹ Ending Stocks, Annual
(Millions of Barrels)



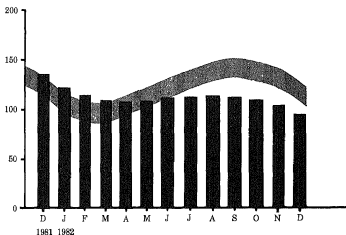
¹Includes natural gasoline and pentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt. Some gasoline blending components not included prior to 1981.

Source table: "Other Petroleum Products Supply and Disposition."

Liquefied Petroleum Gases and Ethane Ending Stocks, Monthly (Millions of Barrels)

Legend

Average Stock Range¹



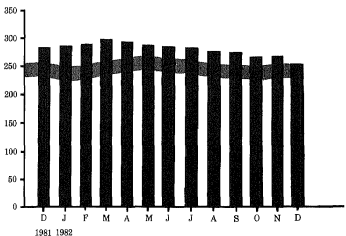
Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."

Other Petroleum Products¹ Endings Stocks, Monthly (Millions of Barrels)

Legend

Average Stock Range¹



includes natural gasoline and pentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt.

Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Other Petroleum Products Supply and Disposition."

Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ²
		Total Production	Imports	Stock Withdrawal ³	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	3,293	602	-9	750	188	3,270	208
1974	AVERAGE	3,558	432	-28	865	174	3,123	218
1975	AVERAGE	3,424	277	-2	537	190	3,002	219
1976	AVERAGE	3,543	206	-5	524	175	3,145	220
1977	AVERAGE	3,912	205	-27	514	185	3,410	230
1978	AVERAGE	4,045	188	14	442	187	3,588	225
1979	AVERAGE	4,153	195	-37	352	205	3,749	235
1980	AVERAGE	3,686	210	-23	311	195	3,534	247
1981	January	3,821	182	90	651	132	3,061	298
	February	3,723	192	-200	538	208	2,958	302
	March	3,722	220	-55	642	210	3,043	304
	April	3,711	230	24	733	192	3,040	303
	May	3,802	229	-58	694	238	3,231	305
	June	3,825	218	-26	658	197	3,251	308
	July	3,852	149	264	791	212	3,282	297
	August	3,878	278	-33	670	210	3,225	298
	September	3,718	285	215	663	178	3,159	291
	October	3,503	241	193	710	227	3,000	285
	November	3,579	282	33	784	154	2,835	284
	December	3,543	243	71	805	223	2,829	282
	AVERAGE	3,739	226	46	723	199	3,066	
1982	January	3,181	240	-102	802	180	2,536	284
	February	3,364	280	-115	846	138	2,724	287
	March	3,485	241	-204	734	161	2,527	284
	April	3,394	287	61	801	204	2,757	291
	May	3,295	309	108	823	210	2,769	285
	June	3,481	315	115	810	216	2,878	281
	July	3,578	391	15	862	187	2,905	281
	August	3,519	329	258	841	202	3,080	273
	September	3,442	385	74	787	213	2,901	271
	October	3,472	387	223	901	286	2,898	264
	November	3,484	406	-12	824	269	2,758	264
	December*	3,285	314	383	868	275	2,801	253
	AVERAGE	3,413	319	77	783	211	2,805	

¹ Includes natural gasoline and isopentane, unrefined stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil.

² Ending Stocks for 1973-1980 are totals as of December 31.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

* See Explanatory Note 5.8.

Note: Annual stock changes for 1975 and 1981 were calculated using expanded survey coverage. Geographic Coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Crude Oil and Petroleum Product Imports from OPEC Sources¹

	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ²	Total OPEC	Total Arab OPEC ³
Thousand Barrels per Day											
1973											
AVERAGE	138	184	488	71	213	223	459	1,135	108	2,993	915
1974											
AVERAGE	190	4	451	74	308	469	713	979	98	3,280	752
1975											
AVERAGE	282	232	715	117	390	280	782	702	122	3,801	1,383
1976											
AVERAGE	432	453	1,230	204	539	298	1,025	700	134	5,088	2,424
1977											
AVERAGE	559	723	1,380	335	541	535	1,143	890	287	6,193	3,185
1978											
AVERAGE	649	854	1,144	385	573	555	919	845	228	6,761	2,983
1979											
AVERAGE	836	958	1,266	281	420	304	1,080	893	212	5,837	3,058
1980											
AVERAGE	498	554	1,261	172	348	9	867	481	130	4,360	2,551
1981											
January	341	500	1,284	93	424	0	906	549	27	4,127	2,219
February	381	468	1,122	93	408	0	886	483	92	3,891	2,084
March	352	485	1,027	47	328	0	771	360	54	3,425	1,912
April	283	485	1,034	68	307	0	812	237	39	3,245	1,887
May	393	443	933	17	297	0	664	331	124	3,208	1,788
June	358	380	888	60	367	0	528	246	118	2,922	1,703
July	333	251	1,079	80	340	0	651	486	38	3,233	1,757
August	348	274	1,082	61	377	0	321	623	84	3,070	1,765
September	336	154	1,477	96	371	0	323	359	148	3,264	2,083
October	242	147	1,242	90	427	0	412	389	172	3,220	1,820
November	210	132	1,270	112	353	0	517	525	55	3,184	1,724
December	176	122	1,045	168	400	0	684	411	122	3,128	1,602
AVERAGE	311	319	1,129	91	385	0	620	408	93	3,323	1,848
1982											
January	254	161	677	87	273	0	682	378	126	2,616	1,378
February	139	92	692	79	236	0	579	347	102	2,267	1,044
March	91	37	555	165	200	0	503	388	91	2,032	880
April	85	0	479	122	216	0	427	411	79	1,616	707
May	178	0	601	118	236	0	211	414	54	1,611	887
June	93	0	593	94	215	72	537	381	110	2,076	798
July	122	0	844	123	327	68	910	348	85	2,840	927
August	170	0	489	138	272	27	542	286	134	2,067	807
September	162	0	432	57	191	21	479	514	52	1,907	859
October	249	7	494	61	227	108	251	496	86	2,029	810
November	247	13	489	47	283	34	480	539	115	2,246	795
December	141	0	237	12	268	68	447	389	73	1,851	407
AVERAGE	161	26	548	91	246	35	605	409	94	2,113	840

¹ Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

² Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

³ Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

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

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Crude Oil and Petroleum Product Imports from Non-OPEC Sources¹

	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico ²	Virgin Islands ²	Other ³	Total
	Thousand Barrels per Day									
1973										
AVERAGE	174	1,326	18	686	265	15	98	329	485	3,283
1974										
AVERAGE	164	1,079	8	611	251	8	90	391	340	2,832
1975										
AVERAGE	152	848	71	332	242	14	90	406	300	2,464
1976										
AVERAGE	118	599	67	275	274	31	68	422	363	2,247
1977										
AVERAGE	171	517	175	211	269	126	105	466	550	2,614
1978										
AVERAGE	160	467	313	226	263	160	64	429	464	2,613
1979										
AVERAGE	147	536	439	231	190	202	92	431	546	2,616
1980										
AVERAGE	76	465	533	226	176	176	68	366	491	2,606
1981										
January	99	543	401	199	150	263	69	494	552	2,701
February	64	546	437	227	163	271	46	461	626	2,661
March	74	472	466	227	93	263	46	370	571	2,603
April	66	412	418	169	139	402	40	365	360	2,423
May	122	365	522	213	105	366	56	344	474	2,573
June	91	353	506	196	124	397	67	282	526	2,613
July	77	362	364	212	176	553	80	206	541	2,533
August	69	376	468	255	123	592	88	164	539	2,696
September	111	423	706	163	169	526	72	285	661	3,100
October	83	449	669	161	121	361	60	303	562	2,736
November	63	547	826	166	106	263	75	294	421	2,567
December	70	501	567	148	125	260	73	367	563	2,714
AVERAGE	74	447	522	197	133	376	62	327	534	2,672
1982										
January	28	609	426	179	106	346	62	334	426	2,416
February	59	533	489	221	120	132	36	354	467	2,424
March	43	436	503	189	116	263	62	307	479	2,426
April	67	357	487	130	166	247	36	266	562	2,466
May	76	416	767	152	95	516	47	302	603	2,974
June	32	462	797	141	129	539	66	322	573	3,153
July	30	527	763	168	111	433	36	369	674	3,122
August	66	435	864	145	106	620	24	320	627	3,099
September	92	464	897	105	69	651	51	270	744	3,453
October	46	456	862	149	106	656	52	262	793	3,202
November	46	647	860	203	90	623	61	334	594	3,460
December	69	561	576	174	102	436	46	336	480	2,901
AVERAGE	68	477	634	173	112	451	50	315	513	2,928

¹ Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

² U.S. Possessions.

³ Includes all Non-OPEC countries except those shown above.

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

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Sources

- 1973 through 1978: Bureau of Mines, U.S. Department of the Interior, "Petroleum Statement, Annual" and PAD Districts Supply/Demand, Annual," Mineral Industry Surveys.
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Monthly Petroleum Statistics Report," (unleaded gasoline category).
- 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual," "Energy Data Reports.
- January 1981 through December 1981: Energy Information Administration, U.S. Department of Energy, "Petroleum Supply Annual."
- January 1982 through December 1982: Detailed statistics in this issue. (See Explanatory Notes 5.1 through 5.6).
- January 1983: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 2.7).
- January 1982 through January 1983: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 2.2).

Detailed Statistics



Table 1. U.S. Petroleum Balance, December 1982

	Current Month		Year-to-Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska	5,536	1,083	5,536	1,083
(2) Lower 48 States	218,922	8,397	2,546,219	8,978
(3) Total U.S.	224,458	8,980	2,551,755	8,971
Net Imports				
(4) Imports (Gross (Excluding SPR))	87,607	2,332	1,202,868	3,296
(5) SPR Imports	3,631	134	60,103	135
(6) Exports	5,970	193	59,279	230
(7) Imports (Net Including SPR)	85,667	2,303	1,178,802	3,224
Other Sources				
(8) SPR Withdrawal (+) or Addition (-)	-3,664	-125	-63,458	-174
(9) Other Stock Withdrawal (+) or Addition (-)	8,291	287	15,728	43
(10) Used Directly and Lost	-1,074	-54	-22,481	-62
(11) Unaccounted for	68	2	20,690	74
(12) Total Other Sources	2,619	91	-43,349	-110
(13) Crude Input to Refineries	368,847	11,514	4,226,425	11,777
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production	90,780	1,938	867,181	1,554
(15) Imports	1	5	7,658	21
(16) Stock Withdrawal (+) or Addition (-)	1,359	44	4,493	12
(17) Total NGPL Supply	62,294	1,887	576,342	1,587
Other Liquids				
Unrefined Oil and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-)	5,807	191	14,794	40
(19) Imports	7,742	260	84,013	175
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	1,641	50	19,232	53
(21) Refinery Processing Gain	18,959	612	183,050	526
(22) Crude Used Directly	1,621	52	21,419	59
(23) Total Other Liquids	35,769	1,154	312,498	858
(23) = (18) through (22)				
(24) Total Production of Products	445,016	14,355	5,190,236	14,220
(24) = (13) + (17) + (23)				
Net Imports of Refined Products				
(25) Imports (Gross)	41,005	1,352	505,424	1,385
(26) Exports	20,687	667	211,235	579
(27) Imports (Net)	21,218	684	294,189	808
(28) Total New Supply of Products	468,228	15,040	5,484,425	15,028
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-)	14,334	489	63,222	228
(30) Total Petroleum Products Supplied for Domestic Use	482,763	15,508	5,567,546	15,254
(30) = (28) + (29)				
Final Use				
(31) Finished Motor Gasoline	292,083	8,640	2,265,236	8,538
(32) Naptha-Type Jet Fuel	6,582	212	75,754	208
(33) Kerosene-Type Jet Fuel	28,081	841	292,529	801
(34) Kerosene	5,608	187	49,791	129
(35) Distillate Fuel Oil	88,522	2,558	976,822	2,870
(36) Residual Fuel Oil	46,554	1,392	818,381	1,994
(37) Liquefied Petroleum Gases and Ethane	62,762	1,702	581,102	1,637
(38) Other	54,935	1,771	723,389	1,982
(39) Total Refined Products	-5,614	-210	-119,326	-310
(40) Total Product Supply	482,763	15,598	5,467,840	15,254
(40) = (31) through (39)				
Ending Stocks, All Oils				
(41) Crude Oil and Lease Condensate (Excluding SPR)	347,735	—	347,735	—
(42) Strategic Petroleum Reserve (SPR)	293,627	—	293,627	—
(43) Unrefined Oil	105,577	—	105,577	—
(44) Gasoline Blending Components	41,738	—	41,738	—
(45) Natural Gasoline and Unrefined Oil	11,028	—	11,028	—
(46) Finished Refined Products	829,323	—	829,323	—
(47) Total Stocks	1,428,927	—	1,428,927	—

1 A balancing item.

2 Includes isopentane, natural gasoline, unrefined stream, and plant condensate only.

3 For products included see Explanatory Note 5.7.

4 = Estimated.

5 = Not Applicable.

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

Source and estimation procedures: See Explanatory Notes 1, 2, and 5.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, December 1982
(Thousands of Barrels)

Commodity	Stock				Disposition					
	Field Production	Refinery Production	Imports	Stock (drawn (+) or added (-))	Unaccounted For Crude Oil	Crude Used Directly and Lost	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 250,460	0	91,638	4,427	67	-1,674	358,947	5,970	0	641,963
Natural Gas Plant Liquids and LBOs	59,449	8,385	8,151	9,714	0	0	18,017	1,740	56,913	198,138
Natural Gasoline and Intermediate	8,444	0	1	319	0	0	4,025	0	4,129	6,007
Unfractionated Stream	-821	0	0	841	0	0	0	0	0	3,573
Plant Condensate	782	0	144	189	0	0	1,125	0	3	1,448
Liquid Petroleum Gases and Ethane	42,035	8,365	8,006	8,255	0	0	12,595	1,740	52,702	95,112
Ethane	9,211	96	1,559	134	0	0	34	(4)	10,264	54,512
Propane	14,090	8,028	1,532	3,290	0	0	115	1,068	26,528	54,512
Butane	144	-159	2,185	4,367	0	0	7,848	675	4,547	15,425
Isobutane-Propene Mixtures	8,898	-178	2,682	-407	0	0	187	0	-688	1,893
Isobutane	3,236	17	2,682	-119	0	0	0	0	11,370	9,774
Isobutane				1,053	0	0	4,305	0	21	8,297
Other Liquids	1,541	0	7,742	5,907	0	0	21,704	0	-6,314	147,015
Other Hydrocarbons and Alcohol	1,541	0	7,742	-100	0	0	1,441	0	0	105,377
Unfractionated Oil	0	0	6,672	6,402	0	0	18,390	0	-3,276	40,205
Motor Gasoline Blending Components	0	0	1,070	-254	0	0	4,135	0	-3,219	482
Aviation Gasoline Blending Components	0	0	0	-141	0	0	-222	0	81	534,211
Finished Petroleum Products	359	407,251	33,699	6,180	0	1,671	0	16,947	430,364	194,136
Finished Motor Gasoline	84	202,059	6,523	-5,075	0	0	0	208	202,059	194,136
Finished Landed Motor Gasoline	14	10,596	3,967	-2,483	0	0	0	0	19,181	194,136
Finished Unleaded Motor Gasoline	14	100,352	1,266	-2,971	0	0	0	0	97,261	194,136
Gasolene	0	51	0	214	0	0	0	0	110	72
Finished Aviation Gasoline	54	340	(4)	382	0	0	0	0	606	2,396
Naphtea-Type Jet Fuel	0	6,201	225	3,332	0	0	0	0	692	2,673
Kerosene	(4)	23,216	225	3,332	0	0	0	0	1	6,002
Jet Fuel	2	4,410	917	0	0	0	0	0	26,081	10,426
Distillate Fuel Oil	2	82,254	3,366	6,967	0	287	0	4,403	86,032	178,395
Residual Fuel Oil	0	30,076	23,170	256	0	1,354	0	5,771	49,054	69,175
Naphtea < 400 Deg. for Petro. Field Use	0	4,590	6	33	0	0	0	187	4,142	1,907
Other Oil > 400 Deg. for Petro. Field Use	0	7,724	0	14	0	0	0	670	7,066	2,180
Special Naphtea	43	1,255	704	-34	0	0	0	24	1,505	3,474
Lubricants	0	3,551	255	117	0	0	0	438	3,485	12,031
Waxes	0	448	110	-32	0	0	0	21	325	766
Petroleum Coke	0	13,532	0	-32	0	0	0	6,308	6,196	15,721
Asphalt	0	7,500	59	0	0	0	0	189	5,008	15,884
Fluid Oil	0	9	0	-1,703	0	0	0	0	0	47
Still Gas	0	16,825	0	7	0	0	0	0	16	0
Still Gas	164	2,541	3	672	0	0	0	0	18,825	1,832
Microchemicals Products								32	3,448	0
Total	320,791	415,038	141,430	26,228	67	-53	396,688	26,657	480,763	1,438,927

1 Unaccounted for crude oil is a blending item.

2 Total equals refinery fuel use and loss.

(4) Less than 500 barrels.

E - Estimated.

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

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition Statistics of Crude Oil and Petroleum Products, January - December 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil	Crude Used Directly and Losses ²	Disposition	
							Refinery Inputs	Exports
Crude Oil (including lease condensate)	5,184,972	0	1,263,081	-47,758	26,890	-22,481	4,964,425	86,279
Natural Gas Plant Liquids and LBGs	561,884	99,019	99,878	44,002	0	0	181,148	0
Natural Gasoline	76,552	0	5,914	3,386	0	0	64,045	583,284
Mineral Spirits	13,131	0	1,854	129	0	0	13,002	21,805
Liquid Petroleum Gases and Ethane	473,468	99,019	92,959	39,599	0	0	110,037	3,579
Propane	101,223	1,474	17,246	-298	0	0	1,378	56
Ethane	168,079	92,930	22,032	21,046	0	0	1,441	951,102
Butane	79,854	3,351	21,051	11,829	0	0	11,457	5,212
Butane-Propane Mixtures	1,520	1,259	1,045	-140	0	0	64,787	292,108
Ethane-Propane Mixtures	83,017	0	12,003	6,801	0	0	2,021	39,060
Isobutane	40,075	31	0	441	0	0	46	15,425
Other Liquids	18,222	0	64,013	14,764	0	0	40,384	102,135
Other Gasolines and Alcohol	19,222	0	0	10,100	0	0	211,305	8,257
Unrefined Oil	0	0	49,407	6,071	0	0	10,119	167,815
Motor Gasoline Blending Components	0	0	14,105	8,597	0	0	120,384	311
Aviation Gasoline Blending Components	0	0	0	199	0	0	63,681	105,277
Finished Petroleum Products	5,198	4,791,909	423,115	43,683	0	21,419	0	187,439
Finished Motor Gasoline	629	2,315,896	87,874	9,032	0	0	7,185	5,097,885
Finished Landed Motor Gasoline	592	1,096,038	43,647	9,924	0	0	7,185	2,396,236
Finished Unrefined Motor Gasoline	37	1,271,043	34,237	-879	0	0	0	1,143,008
Gasolines	0	1,215	0	-13	0	0	0	1,261,429
Ethanol Aviation Gasoline	716	5,175	1,482	147	0	0	0	2,002
Aviation Gasoline	0	75,115	0	0	0	0	0	5,322
Kerosene-Type Jet Fuel	2	289,436	7,445	2,835	0	0	287	73,754
Kerosene	41	41,041	4,009	615	0	0	1,790	250,259
Distillate Fuel Oil	23	953,420	33,022	12,446	0	0	315	10,428
Residual Fuel Oil	0	388,514	278,080	11,817	0	3,721	46,791	176,595
Naphtha < 400 Deg for Petro Feed	0	54,916	18,748	502	0	17,098	78,448	970,822
Other Olefins > 400 Deg. for Petrochem. Feedstock	0	95,223	0	0	0	0	1,504	86,175
Special Naphtha	868	15,415	7,339	490	0	0	7,598	70,082
Unleaded	0	51,563	3,258	1,773	0	0	3,430	60,655
Motor	0	1,114	0	0	0	0	1,750	34,380
Other	0	143,350	0	-2,215	0	0	252	12,251
Aviation Gasoline	0	119,586	1,280	3,703	0	0	58,824	90,317
Aviation Kerosene	0	610	2	-21	0	0	444	15,884
Aviation Fuel Oil	0	202,263	0	0	0	0	0	5,721
Other Gas	2,957	20,039	680	548	0	0	802,260	15,884
Other Gas	0	0	0	0	0	0	0	47
Miscellaneous Products	0	0	0	0	0	0	0	1,932
Total	3,751,277	4,890,028	1,940,187	54,721	26,890	-1,062	4,657,678	287,514
								5,967,448
								1,439,827

¹ Unaccounted for crude oil is a balancing item.

² Total equals refinery fuel use and loss.

Estimated.

Notes: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Disposition of Crude Oil and Petroleum Products, December 1982
(Thousand Barrels per Day)

Commodity	Field Production	Refinery Production	Imports	Supply		Crude Used Directly and Losses ²	Disposition	
				Stock Withdrawal (+) / Buildup (-)	Unaccounted For Crude Oil		Refinery Inputs	Exports
Crude Oil (including lease condensate)	2,860	0	2,356	143	2	-54	11,514	192
Natural Gas Plant Liquids and LUGs	1,427	279	283	313	0	0	581	56
Natural Gasoline and Isopentane	272	0	(4)	10	0	0	150	0
Unfractionated Steam	20	0	0	27	0	0	0	0
Plant Condensate	25	0	5	6	0	0	36	0
Liquefied Petroleum Gases and Ethane	1,366	279	283	270	0	0	386	56
Propane	287	2	0	1	0	0	1	(9)
Butane	455	278	53	108	0	0	4	34
Petroleum Refinery Feedstocks	209	-5	70	141	0	0	247	22
Bitumen	5	-6	0	-16	0	0	0	0
Slurry-Propene Mixtures	286	0	85	-4	0	0	0	0
Isobutane	105	1	0	34	0	0	139	0
Other Liquids	50	0	250	191	0	0	700	0
Other Hydrocarbons and Alcohol	50	0	0	-3	0	0	46	0
Unfinished Oils	0	0	215	207	0	0	527	0
Motor Gasoline Blending Components	0	0	0	5	0	0	133	0
Aviation Gasoline Blending Components	0	0	0	-5	0	0	-7	0
Finished Petroleum Products	11	13,137	1,094	199	0	42	0	611
Finished Motor Gas	3	6,537	178	-164	0	0	0	7
Finished Landed Motor Gasoline	2	3,019	138	-80	0	0	0	7
Gasoline	(4)	3,514	91	-83	0	0	0	0
Finished Aviation Gasoline	2	11	(4)	-1	0	0	0	0
Naphthalene-Type Jet Fuel	0	200	0	12	0	0	0	0
Kerosene-Type Jet Fuel	(4)	749	7	107	0	0	0	(4)
Distillate Fuel Oil	(4)	142	15	30	0	0	0	22
Residual Fuel Oil	(4)	2,555	109	226	0	0	0	(4)
Other Oils < 400 Deg. for Petro. Feed. Use	0	900	747	8	0	43	0	187
Other Oils > 400 Deg. for Petro. Feed. Use	0	138	(4)	1	0	0	0	186
Special Naphthalene	1	40	23	(4)	0	0	0	6
Lubricants	0	115	4	(4)	0	0	0	134
Waxes	0	14	4	4	0	0	0	22
Petroleum Coke	0	431	4	1	0	0	0	14
Asphalt	0	242	2	-50	0	0	0	112
Industrial Oil	0	(4)	0	(4)	0	0	0	1
Sill G.	0	543	0	(4)	0	0	0	263
Miscellaneous Products	5	82	(4)	28	0	0	0	5
Total	10,348	13,487	4,562	846	2	-2	13,796	850
								15,508

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

(4) Less than 500 barrels per day.

E = Estimated.

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

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - December 1982
(Thousand Barrels per Day)

Commodity	Field Production	Refinery Production	Imports	Stocks (thousand barrels)	Unaccounted For (thousand barrels)	Crude Used (thousand barrels)	Disposition	
							Exports	Products Supplied
Crude Oil (including lease condensate)	8,671	0	3,463	131	74	42	235	0
Natural Gas Plant Liquids and Liquefied Petroleum Gas	1,540	271	247	121	0	0	95	1,445
Natural Gas Plant Liquids	2,110	0	16	9	0	0	0	60
Liquefied Petroleum Gas	32	0	5	3	0	0	0	1
Refined Petroleum Products	33	0	0	0	0	0	0	0
Liquefied Petroleum Gas and Ethane	1,298	271	229	100	0	0	65	1,537
Ethane	270	4	47	-1	0	0	321	324
Propane	460	285	63	58	0	0	4	100
Butane	219	9	59	32	0	0	177	104
Branne-Propane Mixtures	4	3	22	0	0	0	5	24
Branne-Propane Mixtures	227	0	34	19	0	0	0	280
Isobutane	110	0	0	1	0	0	111	0
Other Liquids	53	0	175	40	0	0	0	-319
Other Hydrocarbons and Alcohol	53	0	0	0	0	0	0	0
Unrefined Oil	0	0	137	17	0	0	0	-201
Motor Gasoline Blending Components	0	0	29	24	0	0	0	-112
Aviation Gasoline Blending Components	0	0	0	1	0	0	-2	3
Finished Petroleum Products	14	13,129	1,159	120	0	59	514	13,965
Finished Motor Gasoline	2	3,145	10	27	0	0	30	3,183
Finished Landed Motor Gasoline	2	3,004	120	27	0	0	20	3,163
Finished Unleaded Motor Gasoline	0	3,337	62	-2	0	0	0	3,481
Gasohol	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	2	22	0	0	0	0	0	20
Naphtha-Type Jet Fuel	0	220	5	4	0	0	1	220
Kerosene-Type Jet Fuel	0	777	22	8	0	0	5	801
Kerosene	0	115	12	2	0	0	0	128
Distillate Fuel Oil	0	2,612	93	35	0	0	74	2,676
Fuel Oil	0	1,862	793	82	0	48	259	1,944
Naphtha < 400 Deg. for Petro. Feed. Use	0	180	46	1	0	0	0	184
Other Oil > 400 Deg. for Petro. Feed. Use	0	264	44	-1	0	0	20	243
Special Naphthas	2	80	20	1	0	0	5	70
Lubricants	0	141	10	5	0	0	0	159
Waxes	0	14	1	0	0	0	0	15
Petroleum Coke	0	429	0	-6	0	0	1	267
Asphalt	0	328	5	10	0	0	139	341
Pitch	0	2	0	0	0	0	0	2
Sulfur Gas	0	454	0	0	0	0	0	454
Miscellaneous Products	8	79	2	0	0	0	1	81
Total	10,278	13,400	5,042	180	74	-3	815	15,254

1. Unaccounted for crude oil is a balancing item.

2. Includes refinery losses and gains.

(*) Less than 500 barrels per day.

† Estimated.

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

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Flow summary, supply and disposition of Crude Oil and Petroleum Products, December 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Stocks Withdrawn (+) or Added (-)	Unaccounted For Crude Oil	Crude Used in Refineries and Other	Net Receipts	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	5,270	0	23,853	1,312	4,083	3	3,130	35,098	0	0	17,512
Natural Gas Plant Liquids and LRLs	1,031	1,383	558	181	0	0	2,554	310	53	5,354	5,392
Liquid Petroleum Gases	476	1,303	489	181	0	0	2,554	283	53	4,720	5,225
Other Petroleum	310	0	0	0	0	0	0	0	0	319	0
Other Products	236	0	66	10	0	0	0	17	0	257	27
Other Liquids	178	0	2,893	799	0	0	596	4,799	0	-723	18,281
Other Hydrocarbons and Alcohols	178	0	0	-84	0	0	0	84	0	0	100
Unfinished Oil	0	0	2,291	1,179	0	0	596	4,722	0	-746	13,656
Motor Gasoline Blending Components	0	0	312	-291	0	0	0	-2	0	23	5,281
Aviation Gasoline Blending Components	0	0	0	-5	0	0	0	-5	0	0	5
Finished Petroleum Products	33	41,387	29,232	10,823	0	0	77,826	6	1,437	157,863	202,098
Finished Motor Gasoline	33	20,476	4,587	-1,040	0	0	43,015	0	1	67,980	62,096
Finished Landed Motor Gasoline	24	8,613	3,291	-359	0	0	17,653	0	1	20,449	20,090
Finished Unblended Motor Gasoline	9	13,463	1,307	-728	0	0	25,183	0	0	38,288	33,105
Finished Aviation Gasoline	0	0	0	-5	0	0	0	0	0	0	12
Finished Jet Fuel	0	0	0	-144	0	0	151	0	0	239	428
Jet Fuel	0	456	0	170	0	0	626	0	0	1,174	1,174
Kerosene-Type Jet Fuel	0	689	225	1,037	0	0	1,046	0	0	2,322	2,322
Kerosene	0	329	476	557	0	0	1,162	0	380	9,724	9,907
Distillate Fuel Oil	0	9,004	3,280	8,103	0	0	1,162	0	0	2,354	5,307
Residual Fuel Oil	0	0	20,311	1,625	0	0	19,676	0	779	30,354	80,588
Residual Fuel Oil and Other Oils for Petrochemical Feedstocks	0	4,794	0	0	0	0	2,877	0	0	20,037	34,734
Special Naphthas	0	419	2	91	0	0	83	0	42	559	107
Special Naphthas	0	23	62	-53	0	0	253	0	0	229	893
Lubricants	0	457	188	34	0	0	552	0	98	1,163	3,279
Waxes	0	107	52	-18	0	0	7	0	5	142	134
Petroleum Coke	0	1,180	0	373	0	0	0	0	0	1,473	801
Asphalt	0	1,115	56	148	0	0	192	0	154	1,438	3,619
Resid Oil	0	0	0	0	0	0	0	0	0	0	0
SNG Gas	0	1,777	0	0	0	0	0	0	0	1,777	0
Miscellaneous Products	0	463	19	32	0	0	746	0	12	1,229	381
Total	3,949	49,770	96,345	13,015	4,083	3	83,816	40,307	1,490	162,294	243,824

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery feed use and loss.

3 Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(4) Less than 500 barrels.

E Estimated.

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

Source and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II Supply and Disposition of Crude Oil and Petroleum Products, December 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Unaccounted for Crude Oil ¹	Crude Used Directly and Losses ²	Net Receipts	Refinery Inputs	Disposition	
									Exports	Ending Stocks
Crude Oil (including lease condensate)	E 32,054	0	15,643	-725	31,938	-5	1,514	84,183	36	0
Natural Gas Plant Liquids and LRIGs	9,813	2,593	8,272	362	0	0	5,711	8,241	360	18,090
Liquefied Petroleum Gases	9,285	2,450	4,715	1,249	0	0	4,817	4,817	360	10,947
Ethanol	2,753	25	1,528	-549	0	0	0	0	0	3,854
Other Products ³	-1,293	0	0	-307	0	0	1,094	1,424	0	-1,071
Other Liquids										
Other Hydrocarbons and Alcohol	176	0	368	1,258	0	0	967	4,414	0	-1,625
Unrefined Oil	176	0	0	18	0	0	0	154	0	70
Motor Gasoline Blending Components	0	0	253	2,207	0	0	73	2,681	0	-128
Aviation Gasoline Blending Components	0	0	134	-942	0	0	914	1,064	0	-1,488
Aviation Gasoline Blending Components	0	0	0	-45	0	0	0	-45	0	149
Finished Petroleum Products	12	95,202	448	-3,859	0	0	18,056	0	329	112,168
Finished Motor Gasoline	0	54,741	4	-264	0	0	1,073	0	1	66,435
Finished Landed Motor Gasoline	0	27,187	4	-817	0	0	1,073	0	1	30,115
Unleaded Motor Gasoline	0	27,527	2	348	0	0	8,095	0	0	30,922
Gasohol	0	47	0	-15	0	0	0	0	0	52
Finished Aviation Gasoline	0	54	0	25	0	0	72	0	0	151
Aviation-Type Jet Fuel	0	924	0	24	0	0	96	0	0	1,044
Kerosene-Type Jet Fuel	0	3,860	0	-189	0	0	1,571	0	0	5,342
Kerosene-Type Jet Fuel	0	867	0	140	0	0	170	0	0	1,186
Distillate Fuel Oil	2	20,062	1	-1,754	0	0	5,659	0	0	23,990
Residual Fuel Oil	0	3,573	362	-326	0	0	-322	0	0	3,350
Naphtnia and Other Oils for Petrol. Feed	0	1,512	4	32	0	0	-24	0	21	388
Special Naphtnia	0	394	112	30	0	0	0	0	0	524
Lubricants	0	737	14	-182	0	0	91	0	11	2,000
Waxes	0	46	3	-11	0	0	0	0	0	38
Petroleum Coke	0	3,318	0	59	0	0	0	0	0	3,075
Asphalt	0	2,314	1	-1,262	0	0	341	0	302	1,874
Road Oil	0	0	-3	5	0	0	0	0	0	1,293
Slit Gas	0	0	0	0	0	0	0	0	0	2
Slit Gas	0	3,274	0	0	0	0	0	0	0	3,574
Miscellaneous Products	10	146	0	-45	0	0	-78	0	1	69
Total	42,055	98,705	20,750	-2,134	31,938	-5	27,668	94,838	735	128,603
Total										286,213

1. Unaccounted for crude oil is a balancing item.

2. Total equals refinery fuel use and loss.

3. Includes natural gasolines, isopentanes, unrefined stream, and plant condensate.

(4) Less than 500 barrels.

E. Estimated.

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

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table B. PAD District III Supply and Disposition of Crude Oil and Petroleum Products, December 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Stocks Withdrawn or Added ¹	Crude Used Directly and Losses ²	Net Receipts	Disposition		Ending Stocks
							Refinery Inputs	Exports	
Crude Oil (including lease condensate)	130,039	0	40,187	2,570	-24,423	12,377	160,723	0	451,592
Natural Gas Plant Liquids and Liquefied Petroleum Gases	26,238	3,575	0	6,737	0	-7,975	9,476	1,167	39,949
Ethane.....	22,524	3,559	0	6,645	0	-7,235	5,465	1,167	10,841
Other Products.....	6,110	16	0	544	0	0	24	0	6,639
Other Liquids	7,654	0	1,598	0	0	-740	3,367	0	4,506
Other Hydrocarbons and Alcohol	677	0	4,316	3,576	0	-1,859	10,637	0	63,094
Unrefined Oil.....	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components.....	677	0	4,322	2,700	0	-814	7,835	0	127
Aviation Gasoline Blending Components.....	0	0	194	1,002	0	0	2,401	0	46,239
Aviation Gasoline Blending Components.....	0	0	0	-157	0	0	-183	0	10,442
Refined Petroleum Products	238	168,432	2,560	4,576	0	-101,071	0	10,695	82,048
Finished Motor Gasoline.....	0	168,432	0	-1,119	0	-58,086	0	191	30,419
Finished Unleaded Motor Gasoline.....	0	49,141	0	-1,137	0	-30,236	0	0	14,706
Gasoline.....	0	49,073	0	0	0	0	0	0	24,130
Refined Aviation Gasoline.....	54	161	0	61	0	-345	0	0	0
Naphtalene-Type Jet Fuel.....	0	3,070	0	258	0	-762	0	0	2,560
Kerosene-Type Jet Fuel.....	0	1,621	0	2,821	0	-10,264	0	373	2,855
Distillate Fuel Oil.....	0	3,615	0	2,615	0	-35	0	0	1,851
Residual Fuel Oil.....	0	28,500	0	0	0	-25,332	0	3,166	1,960
Naphtalene and Other Oils for Petro. Feed.....	0	11,960	1,026	-123	0	-2,952	0	3,169	7,333
Special Naphtalenes.....	0	9,005	0	180	0	-465	0	16	1,072
Waxes.....	43	759	520	77	0	-330	0	0	1,363
Industrial Coke.....	0	2,074	50	292	0	-731	0	365	5,857
Asphalt.....	0	5,512	49	10	0	-7	0	10	265
Road Oil.....	0	5,562	0	-377	0	0	0	0	446
Sill Gas.....	0	2,566	0	-240	0	-633	0	0	829
Miscellaneous Products.....	137	7,449	0	1	0	0	0	0	3,211
Total	167,162	190,037	47,072	19,509	-24,423	-98,598	180,696	11,862	712,116

1. Unaccounted for crude oil is a balancing item.

2. Total equals refinery fuel use and loss.

3. Includes refined gasoline, kerosene, jetfuel, naphthalene, and plant condensate.

4. Less than 500 barrels.

5. Estimated.

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

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV Supply and Disposition of Crude Oil and Petroleum Products, December 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Stocks Withdrawn (+) Added (-)	Crude Used Directly and Losses ¹	Net Receipts	Refinery Inputs	Disposition		Ending Stocks
								Exports	Products Supplied	
Crude Oil (including lease condensate)	17,473	0	1,774	-551	0	0	13,855	0	0	13,436
Natural Gas Plant Liquids and Liquids	2,360	87	647	84	0	-260	830	(9)	2,688	1,267
Natural Gas Plant Liquids	235	87	571	25	0	-260	830	(9)	2,688	1,267
Liquid Petroleum Gases	20	0	0	-1	0	0	0	0	1,150	584
Ethane	20	0	0	0	0	0	0	0	28	1
Other Products	1,458	0	76	60	0	-354	129	0	1,110	272
Other Liquids	75	0	0	-540	0	0	-766	0	301	5,189
Other Hydrocarbons and Alcohol	75	0	0	-540	0	0	-766	0	301	5,189
Unrefined Oils	0	0	0	0	0	0	0	0	0	0
Other Cracking Blending Components	0	0	0	47	0	0	-486	0	353	2,498
Other Refining Blending Components	0	0	0	-507	0	0	-507	0	-852	2,470
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	67	13,790	9	-1,869	0	263	0	2	12,293	14,171
Finished Motor Gasoline	51	7,268	0	-809	0	163	0	0	6,097	6,006
Finished Landed Motor Gasoline	45	4,050	0	-678	0	-161	0	0	4,056	3,854
Finished Unleaded Motor Gasoline	6	2,458	0	-132	0	329	0	0	2,641	2,131
Gasohol	0	0	0	0	0	0	0	0	0	1
Finished Aviation Gasoline	0	20	0	-12	0	23	0	0	37	67
Naphthalene-Type Jet Fuel	0	419	0	-3	0	-170	0	0	245	340
Kerosene-Type Jet Fuel	0	457	0	-18	0	69	0	0	1,129	1,430
Kerosene	0	80	0	-2	0	0	0	0	42	40
Diesel Fuel Oil	0	3,681	(9)	-121	0	-368	0	0	2,246	4,026
Residual Fuel Oil	0	431	9	-121	0	0	0	0	319	634
Naphthalene and Other Oils for Petro. Feed	0	0	0	0	0	0	0	(9)	0	0
Special Naphthalene	0	4	(9)	-1	0	0	0	(9)	3	9
Lubricants	0	33	0	-15	0	0	0	0	18	84
Household Heating Oil	0	13	0	0	0	0	0	0	0	16
Fuel Oil	0	327	0	-493	0	0	0	0	254	760
Asphalt	0	469	0	-309	0	0	0	(9)	191	1,451
Fuel Oil	0	0	0	0	0	0	0	0	0	0
Shall Gas	0	517	0	0	0	0	0	0	517	0
Miscellaneous Products	17	25	0	1	0	0	0	(9)	42	1
Total	20,095	13,868	2,450	-2,676	-4,841	-1	13,719	3	14,862	34,033

¹ Unaccounted for crude oil is a balancing item.

² Total equals refinery fuel use and loss.

³ Includes natural gasoline, slopentine, unrefined condensate, and plant condensate.

(9) Less than 500 barrels.

0 Estimated.

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

Sources and calculation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V Supply and Disposition of Crude Oil and Petroleum Products, December 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Supply Stock Withdrawal (+) or Addition (-)	Disposition						
					Crude Used and Lost ²	Net Receipts	Refinery Inputs	Exports	Products Supplied	Ending Stocks	
Crude Oil (including lease condensate)	8,187	0	5,371	1,821	-4,701	-1,635	-16,871	63,088	5,934	0	80,354
Natural Gas Plant Liquids and Light	969	817	673	290	0	0	0	1,360	160	1,229	1,771
Liquefied Petroleum Gases	626	800	673	291	0	0	0	1,138	160	1,102	1,714
Ethane	0	17	0	0	0	0	0	0	0	17	6
Other Products ³	342	0	0	-1	0	0	0	252	0	110	67
Other Liquids	435	0	436	844	0	0	346	2,570	0	-509	32,628
Other Hydrocarbons and Alcohol	435	0	436	844	0	0	0	430	0	0	6
Unstabilized Oil	0	0	7	265	0	0	346	1,643	0	-1,071	24,942
Motor Gasoline Blending Components	0	0	428	564	0	0	0	467	0	506	7,059
Aviation Gasoline Blending Components	0	0	0	115	0	0	0	10	0	0	22
Finished Petroleum Products	0	65,441	1,623	-3,541	0	1,612	3,500	0	6,474	96,192	55,788
Finished Motor Gasoline	0	30,359	920	-1,222	0	0	1,720	0	15	32,352	20,212
Finished Labeled Motor Gasoline	0	13,415	663	-837	0	0	1,071	0	15	14,837	9,603
Finished Unlabeled Motor Gasoline	0	17,441	257	-604	0	0	659	0	0	17,433	10,522
Gasohol	0	80	0	-1	0	0	0	0	0	82	7
Finished Aviation Gasoline	0	99	0	32	0	0	326	0	0	151	614
Naphtha-Type Jet Fuel	0	1,333	0	233	0	0	271	0	0	1,881	1,212
Kerosene-Type Jet Fuel	0	6,559	0	298	0	0	271	0	26	7,102	5,256
Kerosene	0	1,716	1	-93	0	0	0	0	(*)	153	146
Distillate Fuel Oil	0	11,057	97	-1,452	0	287	728	0	495	10,232	12,729
Residual Fuel Oil	0	9,888	618	-889	0	1,315	377	0	2,584	8,726	9,311
Naphtha and Other Oils for Paving, Flood, and Other	0	945	1	-117	0	0	0	0	6	823	815
Special Naphtha	0	75	10	-48	0	0	0	0	1	15	265
Lubricants	0	252	(*)	-12	0	0	86	0	0	243	1,223
Waxes	0	70	6	-12	0	0	0	0	0	6	57
Petroleum Coke	0	3,459	0	-270	0	0	0	0	0	3,273	2,411
Asphalt	0	909	0	-93	0	0	0	0	0	875	1,144
Road Oil	0	12	0	0	0	0	0	0	0	12	82
Sol Gas	0	3,500	0	1	0	0	0	0	0	3,500	0
Macellaneous Products	0	152	0	4	0	0	-20	0	3	133	311
Total	87,381	70,238	8,832	-486	-6,701	-23	-12,875	67,018	12,568	86,311	170,741

1. Unaccounted for crude oil is a balancing item.

2. Total equals refinery fuel use and loss.

3. Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(*) Less than 500 barrels.

E Estimated.

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

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (Including Lease Condensate) by PAD District and State, for the Most Current Month, October 1992
(Thousands of Barrels)

PAD District and State		Production	
		Total	Daily Average
PAD District I			
Florida	2,049	56	
New York	8,771	3	
Virginia	8,917	10	
West Virginia	1,010	10	
West Virginia	8,295	10	
Total	8,732	86	
PAD District II			
Arkansas	2,590	94	
California	8,171	13	
Kansas	5,943	102	
Kentucky	8,596	18	
Michigan	2,595	63	
Missouri	8,191	1	
Nebraska	4,170	18	
North Dakota	1,161	135	
Ohio	13,533	37	
Oklahoma	1,512	437	
South Dakota	1,512	3	
Tennessee	163	3	
Total	8,715	1,029	
PAD District III			
Alabama	1,498	48	
Arkansas	1,501	32	
California	1,183	1,183	
Gulf Coast	3,037	99	
Fixed Oil State	36,711	1,391	
Total Louisiana	2,775	90	
Mississippi	583	18	
New Mexico	5,822	49	
Northwestern	5,822	200	
Southwestern	5,822	200	
Total New Mexico	2,128	69	
THRC District 01	3,439	111	
THRC District 02	11,896	377	
THRC District 03	2,266	73	
THRC District 04	880	27	
THRC District 05	3,532	114	
THRC District 06, excluding East Texas	2,796	90	
THRC District 07	2,866	92	
THRC District 07C	13,367	831	
THRC District 08	1,658	55	
THRC District 09	3,252	106	
THRC District 10	1,658	55	
THRC District 10	4,437	143	
THRC District 10	76,114	2,520	
Total Texas	4,130	4,130	
PAD District IV			
Colorado	2,582	83	
Montana	2,885	83	
Utah	8,149	83	
Wyoming	8,149	83	
Total	8,178	488	
PAD District V			
Alaska	2,316	76	
Alaska	52,665	1,831	
North Slope	52,665	1,831	
Total Alaska	26	1	
California	8,590	212	
Central Coast	21,298	64	
East Central	17	1	
North	6,810	230	
South	34,396	1,116	
Total California	87,853	2,824	
Nebraska	87,853	2,824	
Total	8,684	8,684	
United States Total	8,684	8,684	

1 Includes offshore production.
Source: See Explanatory Notes on Data Collection and Estimation.
2 Estimated.

Table 12. Offshore Production of Crude Oil (Including Lease Condensate) By State, for the Most Current Month,¹ October 1982
(Thousands of Barrels)

State	Offshore Production	
	Total	Daily Average
Alaska ²	2,030	60
California	2,530	82
Federal	2,530	82
State	9,233	104
California, Total	5,763	186
Louisiana	23,899	771
Federal	23,899	771
State	25,074	838
Louisiana, Total	1,553	50
Federal	1,42	5
State	1,695	55
Texas, Total	35,471	1,144
United States Total		

¹ These production data are included in Table 11.

² All offshore production within State boundaries.

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

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 13. Production of Lease Condensate by State, for the Most Current Month,¹ October 1982
(Thousands of Barrels)

State	Lease Condensate Production	
	Total	Daily Average
Alabama	844	27
California	11	(9)
Louisiana	5,261	170
Mississippi	163	6
Nebraska	365	12
Oklahoma	882	28
Texas	3,602	118
Total	11,140	360

¹ These production data are included in Table 11. Small amounts of lease condensate are known to be produced in states other than those listed; however, statistics on the quantities produced are not available.

(9) Less than 500 barrels.

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

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 14. Natural Gas Processing Plant Production of Petroleum Products by PAD District: December 1982
(Thousands of Barrels)

Commodity	PAD District I				PAD District II				PAD District III				PAD District IV				United States
	East Coast	Apalachian	Total	Ind. IL, Ky.	Wisc. Minn.	Ohio, Pa., Mo.	Total	Texas	Gulf Coast	La. Gulf Coast	No. La. Ark.	New Mexico	Total	Rocky Mt.	Dist. V West Coast	United States	
Natural Gas Plant Liquids	580	430	1,010	1	1,034	434	7,453	9,913	13,094	3,020	8,767	787	3,670	36,236	2,390	969	50,440
Isopentane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gasoline	70	34	113	0	69	58	1,122	1,369	1,610	2,430	1,371	0	492	5,432	386	349	7,568
Unfractionated Steam	36	86	123	1	888	81	-3,940	-10,183	-13,114	1,424	1,424	187	2,342	1,036	0	0	751
Plant Condensates	0	0	0	0	0	0	29	70	256	501	10	-85	2	884	19	0	752
Liquefied Petroleum Gases and Ethane	485	330	795	0	947	256	9,843	11,046	7,530	13,402	6,077	582	1,033	26,624	934	636	42,035
Ethane	150	108	319	0	403	0	2,350	2,753	909	2,994	2,085	48	77	5,110	29	0	9,211
Propane	189	108	257	0	394	157	3,262	3,603	2,711	3,627	2,060	177	469	9,044	576	370	14,050
Butane	134	35	139	0	68	86	1,337	1,482	1,223	1,322	718	208	266	4,328	320	137	5,477
Ethane-Propane Mixtures	0	0	0	0	0	0	2,342	2,220	2,072	3,559	527	14	0	97	0	41	144
Ethane-Butane Mixtures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane	22	18	40	0	37	11	552	600	576	1,595	387	147	84	2,568	9	18	3,206
Finished Motor Gasoline	33	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Finished Lead Gasoline	24	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Finished Unleaded Motor Gasoline	9	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasohol-Isopentane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Special Naphtha	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Production	613	450	1,064	1	1,235	494	7,454	9,825	20,207	3,022	8,771	801	3,575	36,475	2,457	969	50,700

1. Production represents quantity of natural gas processing plant output less input to fractionating facilities.

(*) Less than 500 barrels.

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

Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Refinery Input of Crude Oil and Petroleum Products by PAD District, December 1982
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V			Unalut Stanes West Coast
	East Coast	Apogee Coast	Total	Apogee Inland	Inc. IL, NY	Wm. Dist.	On- line In- line	On- line Dist.	Total	Texas Coast	La. Coast	No. La. Ark.	Now Mexico	Total	Rocky Mts.	Coast
Crude Oil (including lease condensates)	32,271	2,827	35,098	1,723	59,920	7,694	21,546	94,163	14,154	73,021	60,538	4,967	2,333	180,723	13,355	63,088
Natural Gas Plant Liquids																
Unfractionated Stream	17	0	17	0	407	55	794	1,266	779	1,062	171	102	16	3,007	50	232
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LPG and Ethane	250	43	293	179	2,851	480	1,307	4,136	91	678	0	220	1	650	25	0
Propane	0	0	0	0	0	0	0	0	0	2,175	2,402	129	64	5,519	503	1,128
Normal Butane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
Isobutane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115
Other Petroleum Products	195	0	195	101	1,347	353	512	2,619	286	925	1,295	28	16	2,505	124	508
Crude Oil Blends	0	0	0	0	537	57	49	643	131	80	77	0	0	288	279	369
Bitumen-Propene Mixtures	0	0	0	0	0	0	0	0	0	72	48	0	25	145	8	0
Isobutane-Propene Mixtures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117
Isobutane	55	43	98	78	839	64	446	1,487	332	1,026	940	91	23	2,414	63	243
Other Liquids																
Other Hydrocarbons	48	0	48	0	180	0	14	194	17	445	106	0	0	638	75	419
Unfractionated Stream	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unfractionated Oil (fuel)	4,659	63	4,722	15	1,454	-37	1,139	2,691	386	3,793	3,259	264	106	7,870	-406	1,945
Motor Gasoline Blending																
Components (fuel)	-12	10	-2	2	1,878	-83	-183	1,504	-642	529	2,602	-39	-45	2,401	-355	487
Aromatic Gasoline Blending																
Components (fuel)	-5	0	-5	0	-43	0	-2	-45	-76	-45	-61	0	0	-162	0	-222
Total Input to Refineries	37,248	2,959	40,207	1,919	59,803	8,438	24,687	94,838	15,438	88,409	69,104	5,343	2,652	180,886	13,719	67,016
Crude Oil Distillates																
Gross Input (dry average)	1,269	31	1,300	82	1,749	271	704	2,706	484	2,671	2,026	160	85	5,437	452	2,046
Operating Capacity (dry average)	1,644	117	1,761	98	2,162	358	858	3,269	618	4,162	2,758	267	107	7,009	589	3,150
Operating Ratio (percent)	65.0	77.3	65.0	93.7	74.5	91.7	82.0	79.3	50.0	62.7	73.5	60.1	75.8	68.5	76.8	65.4
Crude Oil Qualities																
Sulfur Content, Weighted Average	21	28	26	47	32	156	56	29	58	93	90	150	38	86	88	100
API Gravity, Weighted Average	31.41	40.40	35.14	38.00	35.52	31.29	37.15	35.58	38.38	34.60	33.04	32.15	39.03	34.88	35.37	28.50

1 Represents gross input divided by operating capacity.

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

Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Refinery Production of Petroleum Products by PAD District, December 1982
(Thousands of Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			United States				
	East Coast	Appalachian	Total	Appalachian	Inc. Ill. Ky.	Wisc. Mo.	Okla. Kans. Mo.	Total	Texas Gulf Coast	La. Gulf Coast	No. La. Ark.	New Mexico		Total	Rocky West Coast	PAID	PAID
Liquefied Petroleum Gases and Ethane	1,370	15	1,385	42	1,560	281	610	2,503	251	2,099	1,074	75	76	3,575	87	017	8,305
For Petrochemical Feedstock Use	296	0	296	0	198	0	75	274	17	1,189	252	14	0	1,472	16	1,472	2,232
For Other Uses	1,074	15	1,089	42	1,362	281	535	2,229	234	910	822	61	76	2,103	71	653	6,143
Ethane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Other Uses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propane	1,183	13	1,206	42	1,517	287	623	2,469	250	2,115	1,387	50	47	3,827	97	194	8,629
For Petrochemical Feedstock Use	249	0	249	0	199	0	75	274	17	1,189	252	14	0	1,472	16	1,472	2,232
For Other Uses	944	13	957	42	1,318	287	548	2,195	233	1,926	1,135	36	47	2,335	78	719	6,397
Butane	177	0	177	0	20	4	-13	11	-24	21	-288	23	0	340	-18	-49	-159
For Petrochemical Feedstock Use	47	0	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Other Uses	130	0	130	0	20	4	-13	11	-24	21	-288	23	0	340	-18	-49	-159
Butane-Propane Mixtures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Other Uses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane for Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane for Other Uses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	19,320	1,110	20,430	4,420	14,038	54,741	8,192	45,431	34,588	41,536	17,833	10,437	1,251	650	40,141	4,850	93,596
Finished Unleaded Motor Gasoline	7,424	589	8,013	149	10,348	2,348	7,922	27,107	4,156	17,833	10,437	1,251	650	40,141	4,850	13,415	93,596
Finished Unleaded Motor Gasoline	11,986	567	12,463	581	18,013	2,054	5,999	27,147	4,033	25,736	18,131	696	417	43,073	2,438	17,441	109,342
Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Other Uses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jet Fuel	418	38	456	81	302	77	404	824	730	4,007	489	11	324	3,070	418	1,333	6,201
Jet Fuel-Other	689	0	689	101	2,961	237	561	3,860	724	4,000	6,830	18	21	1,851	467	9,558	23,216
Kerosene	251	68	319	0	733	87	47	867	50	1,412	1,437	-2	31	35,520	3,051	11,057	82,294
Distillate Fuel Oil Less No. 4	8,207	707	9,004	364	10,368	2,332	6,008	20,033	3,448	20,152	12,434	1,434	861	38,520	3,051	11,057	82,294
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Other Uses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residual Fuel Oil	4,475	308	4,783	143	2,648	341	441	3,573	589	5,551	5,312	456	82	11,560	431	9,668	30,576
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Other Uses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Oil > 400 Deg. For Petro. Feed. Use	412	0	412	0	61	0	116	207	453	2,687	365	1	0	3,516	0	155	4,290
Other Oil > 400 Deg. For Petro. Feed. Use	17	11	28	0	1,437	0	1,438	-61	2,793	2,725	46	0	5,489	0	790	7,724	
Special Naphthas	86	372	457	0	195	0	129	324	130	491	29	149	0	799	4	75	1,255
Lubricants	13	137	150	0	31	0	370	337	22	1,272	580	200	0	2,074	33	250	3,251
Bright Stock	0	221	221	0	975	0	269	544	0	141	216	0	0	357	5	12	671
Neutral	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Grades	72	14	86	0	73	0	73	146	23	487	138	67	0	967	20	178	1,338
Wax	17	80	107	0	8	0	38	48	8	159	52	33	0	212	13	70	448
Microcrystalline	1	17	18	0	0	0	1	8	9	2	33	0	0	52	0	47	256
Crystalline-Fully Refined	10	28	38	0	6	0	28	34	0	64	60	0	0	124	13	47	266
Crystalline-Other	6	45	51	0	2	0	9	11	0	36	0	0	0	36	0	23	121
Crystalline-Light	1,180	20	1,200	29	2,046	330	913	3,215	294	2,802	1,805	157	10	5,069	327	3,459	13,352
Marketable	923	0	923	0	1,192	210	629	2,031	97	1,335	1,032	132	0	2,562	171	2,618	7,711
Asphalt	805	20	825	29	854	130	284	1,267	227	1,467	773	25	10	2,562	156	641	5,641
Paved Oil	1,173	20	1,193	00	1,292	130	482	2,314	437	359	1,190	502	60	2,595	469	900	7,000
Sill Gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Petrochemical Feedstock Use	1,668	129	1,777	09	2,291	262	962	3,574	427	4,446	2,243	106	47	7,440	517	3,590	10,826
For Other Uses	20	0	20	0	1	0	0	0	0	0	0	0	0	0	0	0	0
For Other Uses	1,628	129	1,767	09	2,290	262	962	3,573	423	4,446	2,243	106	47	7,440	517	3,590	10,826
For Other Uses	441	22	463	3	65	24	54	149	118	716	900	21	0	1,755	25	152	2,541
Miscellaneous Products	38,785	2,845	42,770	1,982	62,221	8,903	25,596	90,705	15,817	53,974	72,303	5,430	2,593	190,207	13,986	70,256	416,626
Total Output	-2,537	-36	-2,563	-63	-2,418	-474	-912	-3,067	-389	-5,515	-3,099	-87	-31	-9,121	-167	-3,340	-19,358
Increasing Gals(l) or Less(l) (1)																	

1 Represents the arithmetic difference between input and output.
Notes: Total may not equal sum of components due to independent rounding.
See Explanatory Notes on negative product yield.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Percent Refinery Yield of Petroleum Products by PAD District.¹ December 1982

Commodity	BAPD District I			BAPD District II			BAPD District III			BAPD District IV			United States				
	Flzet Cont	Appales Cont	Total	Appales Cont	Incl. Ill. Ky.	Data. Min. Wisc.	Total	Texas Inland	Texas Gulf Coast	No. La. Ark.	New Mexico	Total		BAPD Dist. IV Rocky Mt.			
Finished Motor Gasoline ¹	51.4	37.6	89.4	35.5	54.7	48.4	58.1	53.8	49.7	45.6	45.8	31.3	39.1	45.5	51.9	44.3	48.0
Finished Aviation Gasoline ²	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Finished Kerosene ³	3.7	4.4	8.1	2.4	2.9	3.7	2.7	2.0	1.7	2.5	1.7	1.5	0.1	2.1	2.7	1.2	2.2
Finished Heating Oil ⁴	1.9	0	1.9	5.5	3.1	3.0	3.6	1.1	5.0	1.7	2.9	1.0	1.8	3.1	2.1	1.7	1.7
Finished Type A Fuel Oil ⁵	1.9	0	1.9	5.5	3.1	3.0	3.6	1.1	5.0	1.7	2.9	1.0	1.8	3.1	2.1	1.7	1.7
Finished Type B Fuel Oil ⁶	7	3.4	10.4	0	1.8	1.1	2	1.0	5	1.7	3.2	0.8	9	6	10.1	5.2	8.2
Residual Fuel Oil ⁷	22.5	14.5	37.0	20.2	20.2	20.2	20.2	23.1	23.7	24.4	10.8	33.3	35.5	22.6	27.8	17.1	22.0
Residual Fuel Oil ⁸	12.1	10.7	22.8	8.2	4.9	4.3	1.9	4.1	4.0	6.7	8.3	9.2	3.4	7.1	3.2	5.3	8.2
Natural Gas ⁹	1.1	0	1.1	0	2.6	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas > 400 Btu Per Gallon ¹⁰	(9)	0	(9)	0	2.6	0	(9)	1.7	-4	3.3	4.3	9	0	3.0	0	1.2	2.1
Special Naphtha ¹¹	4	-1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lubricants ¹²	2	12.9	14.9	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0
Asphalt ¹³	0	3.7	3.7	17	0	0	0	0	1.7	8	2	1.5	9	4.1	0	1.2	2
Petroleum Coke ¹⁴	5.1	7	12.1	3.7	3.7	4.1	4.2	3.7	3.0	9.5	10	3.2	4	0	2.1	5.3	8.6
Residual Oil ¹⁵	3.2	7	10.2	3.0	3.5	2.3	2.7	2.7	2.0	8	10	19.2	24	0	3.7	14	20
Gas for Petro. Feed. Use ¹⁶	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas for Petro. Feed. Use ¹⁷	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas for Petro. Feed. Use ¹⁸	4.4	4.5	8.9	4.4	4.0	4.2	3.8	4.2	4.1	2.0	4.5	3.8	1.9	4.0	3.7	5.2	4.3
Gas for Petro. Feed. Use ¹⁹	1.2	8	9.2	1.2	8	8	8	8	8	8	8	8	8	8	8	8	8
Miscellaneous Products ²⁰	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Processing Gains ²¹ or Losses ²²	-8.9	-9	-17.9	-3.6	-4.4	-6.0	-4.0	-4.5	-2.7	-6.7	-4.9	-1.6	-1.3	-3.4	-1.2	-5.0	-5.1

[†] Based on crude oil input and net refining of unfinished oils.

2. Based on total finished motor gasoline output plus net output of natural gas plant liquids, other hydrocarbons and alcohols.

^a Based on finished aviation gasoline output plus net output of aviation gasoline blending components (hydrocarbons and alcohols).

4 Represents the arithmetic difference between Input and Production

(ii) Less than 0.05 percent.

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

See Explanatory Notes on negative product yields.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 18. Refinery Receipts of Crude Oil by PAD District, December 1982
(Thousands of Barrels)

Method	PAD District I			PAD District II			PAD District III			PAD District IV			United States
	East Coast	Appl. chain coast	Total	Appl. chain coast	Total	Appl. chain coast	Appl. chain coast	Total	Appl. chain coast	Total	Appl. chain coast	United States Coast	
Refinery	0	2,115	2,115	95,089	3,926	20,020	61,491	12,241	48,199	32,697	3,409	2,035	95,371
Domestic	0	0	0	152	14,419	3,943	1,111	19,625	862	7,052	5,012	249	11,269
Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0
Tanker	4,531	0	4,531	0	0	0	0	0	0	0	0	0	9,057
Domestic	22,038	0	22,038	0	803	0	803	0	11,714	12,507	0	0	24,251
Foreign	0	0	0	0	0	0	0	0	0	0	0	0	5,877
Barge	0	79	79	0	1,128	0	1,128	0	5,188	4,990	30	0	9,608
Domestic	0	0	0	0	0	0	0	0	45	70	113	0	228
Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck	0	316	316	0	354	34	905	1,303	688	173	459	862	325
Domestic	0	0	0	0	0	0	0	0	182	0	0	0	182
Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4,531	2,848	7,379	95,089	3,926	20,020	61,491	12,241	48,199	32,697	3,409	2,035	95,371
Domestic	22,038	0	22,038	0	803	0	803	0	11,714	12,507	0	0	24,251
Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Source: See Explanatory Notes on Data Collection and Estimation.

Table 19. Fuels Consumed at Refineries by PAD District, December 1982
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			United States
	Road	Appl. chain coast	Total	Road	Appl. chain coast	Total	Road	Appl. chain coast	Total	Road	Appl. chain coast	Total	
Crude Oil (including lease condensate)	0	0	0	0	0	0	0	0	0	0	0	0	20
Unrefined Petroleum Gasol	26	0	26	3	64	67	19	111	130	4	177	181	5
Unrefined Oil	0	0	0	0	0	0	0	0	0	0	0	0	124
Distillate Fuel Oil	35	17	52	0	5	5	3	8	13	0	0	0	64
Residual Fuel Oil	584	78	662	23	407	430	3	159	162	0	283	104	334
Marketable Petroleum Coke	0	0	0	0	0	0	0	0	0	0	0	0	15
Catalyst Petroleum Coke	808	20	828	28	868	896	258	1,164	1,462	25	10	2,448	156
Oil Gas	1,378	129	1,507	0	2,432	2,432	682	3,114	3,796	181	47	6,042	483
Oil Gas	0	0	0	0	0	0	0	0	0	0	0	0	0
Oil Gas	1,501	272	1,773	44	3,090	3,134	3,316	6,445	9,561	340	168	36,960	1,235
Natural Gas (million cubic feet)	0	15	15	373	49	422	76	337	413	23	22	890	170
Coal (thousand short tons)	209	103	312	15	100	115	0	0	0	0	0	0	572
Purchased Electricity (million kWh)	665	9	674	0	100	100	0	0	0	0	0	0	834
Purchased Steam (million pounds)	0	0	0	0	0	0	0	0	0	0	0	0	2,247

1 Includes liquefied refinery gases

2 Includes small quantities of other petroleum products (e.g., unfinished oils, kerosene, etc.) consumed at refineries

(N) Less than 500 barrels except where noted.

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

Source: See Explanatory Notes on Data Collection and Estimation.

Table 20. Imports of Crude Oil and Petroleum Products by PAD District, December 1982
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts				
	I	II	III	IV	V
Crude Oil (including lease condensate) 1, 2	23,953	18,643	40,197	1,774	8,071
Natural Gas Liquids					
Ethane	558	8,273	0	647	8,071
Propane	1	0	0	0	0
Butane	48	0	0	0	0
Liquefied Petroleum Gases and Ethane	489	8,273	0	79	8,071
Ethane	0	1,558	0	577	8,071
Propane	364	662	0	365	88
Butane	186	1,222	0	203	675
Ethane-Propane Mixtures	0	0	0	0	0
Ethane-Butane Mixtures	0	2,632	0	0	0
Other Liquids 1	2,663	368	4,318	0	436
Unrefined Oil 1	2,291	233	4,125	0	436
Motor Gasoline	312	134	194	0	429
Motor Gasoline Blending Components					
Finished Petroleum Products	28,232	446	2,560	8	1,653
Finished Motor Gasoline	4,537	4	0	0	820
Finished Labeled Motor Gasoline	3,291	4	0	0	820
Finished Unlabeled Motor Gasoline	1,247	2	0	0	0
Finished Diesel Fuel	0	0	0	0	257
Finished Jet Fuel	0	0	0	0	1,653
Kerosene-Type Jet Fuel	0	0	0	0	0
Bonded Aircraft Fuel	225	0	0	0	0
Other	225	0	0	0	0
Kerosene	225	0	0	0	0
Distillate Fuel Oil	476	0	0	0	0
Bonded ships bunkers	3,260	1	8	0	225
For military offshore use	0	0	0	0	0
No. 2 fuel oil	0	0	0	0	1
No. 4 fuel oil	3,257	1	8	0	477
Residual Fuel Oil	20,311	365	1,826	0	81
Bonded ships bunkers	0	0	0	0	0
For military offshore use	0	0	0	0	0
Other	20,311	365	1,826	0	81
No. 400 Dsg. for Petrol. Prod. Use	2	4	0	0	0
Other Oil > 400 Dsg. for Petrol. Prod. Use	0	0	0	0	0
Special Naphthas	62	112	520	0	10
Lubricants	186	14	53	0	704
Wax	52	3	48	0	110
Asphalt	58	1	0	0	0
Miscellaneous Products	0	0	3	0	59
Total Imports	56,345	26,780	47,072	2,430	8,832
					141,430

1 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 origin.

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

(*) Less than 500 barrels.

Notes: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, December 1982
(Thousands of Barrels)

Source	Crude Oil	LPG and Ethane	Unrefined Crude	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Special Naphthas	Other Petroleum Products	Total Petroleum	Total (Daily Average)
All PAD Districts													
Arab OPEC													
Algeria	2,535	0	0	0	0	0	0	0	1,728	0	0	1,728	4,267
Libya	0	0	182	0	0	0	0	0	0	0	0	182	535
Saudi Arabia	7,213	127	0	0	0	0	0	0	0	0	0	127	7,340
United Arab Emirates	0	0	388	0	0	0	0	0	0	0	0	388	368
Subtotal Arab OPEC	10,206	127	182	388	0	0	0	0	1,728	0	0	2,405	12,611
Other OPEC													
Ecuador	0	0	0	0	0	0	0	0	316	0	0	316	10
Gabon	1,412	0	0	0	0	0	0	0	0	0	0	1,412	48
Indonesia	7,522	0	0	182	0	0	0	38	504	0	0	685	8,217
Iran	7,715	0	0	0	0	0	0	0	0	0	0	0	2,715
Nigeria	13,520	0	0	0	0	0	0	0	344	0	0	344	13,864
Venezuela	5,245	0	1,459	150	0	0	0	0	4,089	340	57	5,115	12,350
Subtotal Other OPEC	31,415	0	1,459	150	182	0	0	38	5,233	340	57	7,470	38,884
Other													
Angola	0	0	0	0	0	0	0	0	390	0	0	390	369
Australia	0	26	0	0	0	0	0	0	254	0	0	280	250
Bahamas	0	0	1,397	0	0	0	0	229	1,111	0	0	2,730	80
Brunei	381	0	0	0	268	0	0	0	36	0	0	620	1,001
Canada	217	0	0	0	0	0	0	0	0	0	0	0	217
Costa Rica	7,693	0	282	240	31	0	0	429	491	184	224	9,717	12,385
Congo	0	0	0	0	0	0	0	0	174	0	0	174	174
Egypt	518	0	0	312	0	0	0	0	0	0	0	312	891
France	0	0	0	0	0	0	0	0	0	0	0	0	24
Germany	0	0	0	0	0	0	0	0	601	0	16	617	34
Malaysia	0	0	0	0	0	0	0	0	0	0	0	0	621
Mexico	20,868	0	0	0	0	0	0	17	0	0	7	25	20,913
Netherlands	0	0	0	0	1,053	0	0	240	217	22	0	1,532	1,532
Netherlands Antilles	0	0	535	0	121	0	0	3	4,899	0	39	5,387	49
Norway	1,365	0	0	0	0	0	0	0	0	0	0	0	1,365
Oman	633	0	0	0	0	0	0	0	0	0	0	0	633
People's Republic of China	0	0	0	0	0	0	0	25	35	0	0	758	20
Peru	378	0	0	0	0	0	0	0	784	0	0	784	1,162
Spain	0	0	444	0	475	0	0	468	0	0	107	1,484	48
Sweden	0	0	0	0	0	0	0	0	504	0	0	507	507
Switzerland	2,645	0	0	0	0	0	0	0	0	0	0	0	2,645
United Kingdom	12,890	7	0	0	346	0	0	0	350	0	23	3,183	102
United States	0	0	1,698	0	0	0	0	0	28	0	28	30	12,777
Virgin Islands	0	0	0	0	2,046	225	469	1,900	3,896	189	0	10,411	358
Zaire	259	0	0	0	0	0	0	0	0	0	0	0	259
Other Western Hemisphere													
Hemisphere	143	0	0	0	0	0	0	0	536	4	0	680	703
Other Eastern Hemisphere	2,021	0	655	0	300	0	0	24	1,254	6	79	2,359	141
Subtotal Other	50,017	7,879	4,982	652	5,371	525	477	3,307	15,308	954	252	30,917	80,934
Total Imports	91,638	8,006	6,672	1,070	5,523	225	477	3,395	23,170	704	579	46,782	141,430

See footnotes at end of table.

Source	Crude Oil 1	LPG	Unrefined Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Diesel Fuel Oil	Residual Fuel Oil	Special Naphthas	Other Products	Total Products	Total Petroleum	Total (Daily Average)
Arab OPEC														
Algeria	1,060	0	0	0	0	0	0	0	1,728	0	0	1,728	2,768	90
Libya	354	0	182	0	0	0	0	0	0	0	0	0	182	535
Saudi Arabia	3,467	127	0	0	0	0	0	0	0	0	0	0	127	3,695
Subtotal Arab OPEC	4,881	127	182	0	0	0	0	0	1,728	0	0	2,037	5,918	223
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gabon	530	0	0	0	0	0	0	0	316	0	0	316	316	10
Indonesia	1,453	0	0	0	0	0	0	0	0	0	0	0	530	17
Nigeria	1,311	0	0	0	0	0	0	0	484	0	0	484	1,947	63
Venezuela	1,366	0	0	0	0	0	0	0	0	0	0	0	4,951	160
Subtotal Other OPEC	8,298	0	260	0	0	0	0	0	3,759	0	57	4,046	5,411	175
Other														
Angola	0	0	0	0	0	0	0	0	4,539	0	57	4,635	13,154	454
Australia	0	0	0	0	0	0	0	0	0	0	0	0	389	13
Bahrain	0	0	0	0	0	0	0	0	253	0	0	253	253	8
Brunei	381	0	0	0	0	0	0	232	1,121	0	0	1,914	1,914	62
Canada	0	359	2	0	225	0	0	0	361	0	0	620	1,001	32
Congo	0	0	0	0	26	0	0	427	151	0	186	1,157	1,157	37
Egypt	0	0	0	0	0	0	0	0	174	0	0	174	174	6
France	0	0	0	0	0	0	0	0	0	0	0	0	312	10
Germany	0	0	0	0	0	0	0	0	0	0	0	0	16	1
Malaysia	0	0	0	0	0	0	0	0	0	0	0	0	621	20
Mexico	1,022	0	0	0	0	0	0	0	821	0	0	821	1,255	50
Netherlands	0	0	0	0	1,053	0	0	240	217	0	0	1,510	1,510	40
Netherlands Antilles	0	0	0	0	121	0	0	3	4,475	0	39	5,173	5,173	167
Oman	683	0	0	0	0	0	0	0	0	0	0	0	683	23
Persia	378	0	0	0	0	0	0	0	0	0	0	0	794	27
Puerto Rico	0	0	0	0	475	0	0	0	764	0	0	1,152	1,152	37
Trinidad and Tobago	495	0	0	0	0	0	0	498	0	0	107	1,484	1,484	48
United Kingdom	6,614	7	0	0	0	0	0	0	495	0	0	495	989	32
Virgin Islands	0	0	0	0	386	0	0	0	289	0	26	706	7,322	258
Other Western Hemisphere	0	0	306	0	2,048	225	408	1,200	3,536	0	0	8,880	8,880	286
Hemisphere	0	0	0	0	0	0	0	0	550	0	0	550	550	18
Other Eastern Hemisphere	448	0	0	0	231	0	0	0	225	0	0	456	904	29
Subtotal Other	10,773	362	1,849	312	4,597	225	476	3,260	14,044	62	312	25,060	36,274	1,170
Total Imports	23,853	489	2,291	312	4,597	225	476	3,260	20,311	62	369	32,382	56,345	1,818
PAD District II														
Arab OPEC														
Algeria	1,106	0	0	0	0	0	0	0	0	0	0	0	1,106	36
Saudi Arabia	347	0	0	0	0	0	0	0	0	0	0	0	347	11
Subtotal Arab OPEC	1,453	0	0	0	0	0	0	0	0	0	0	0	1,453	47

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, December 1982
(Thousands of Barrels)

Source	Crude Oil 1	LPG and Ethane	Unrefined Petroleum Products	Gasoline Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Dist. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District II														
Other OPEC														
Iran	923	0	0	0	0	0	0	0	0	0	0	0	923	32
Nigeria	3,371	0	0	0	0	0	0	0	0	0	0	0	3,371	109
Venezuela	621	0	0	0	0	0	0	0	0	0	0	0	621	26
Subtotal Other OPEC	5,184	0	0	0	0	0	0	0	0	0	0	0	5,184	167
Other														
Canada	5,159	6,273	253	134	6	0	0	1	305	112	22	7,106	12,265	396
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	0	17
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Italy	4,278	0	0	0	0	0	0	0	0	0	0	0	4,278	138
Japan	1,477	0	0	0	0	0	0	0	0	0	0	0	1,477	48
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	1,573	0	0	0	0	0	0	0	0	0	0	0	1,573	51
Subtotal Other	13,065	6,273	253	134	6	0	0	1	305	112	22	7,106	20,112	649
Total Imports	19,643	6,273	253	134	6	0	0	1	305	112	22	7,106	26,750	863
PAD District III														
Arab OPEC														
Algeria	473	0	0	0	0	0	0	0	0	0	0	0	473	15
Libya	3,399	0	0	0	0	0	0	0	0	0	0	0	3,399	110
Saudi Arabia	3,072	0	0	0	0	0	0	0	0	0	0	0	3,072	125
Subtotal Arab OPEC														
Other OPEC														
Gabon	852	0	0	0	0	0	0	0	0	0	0	0	852	28
Indonesia	962	0	0	0	0	0	0	0	0	0	0	0	952	31
Iran	1,722	0	0	0	0	0	0	0	0	0	0	0	1,722	56
Nigeria	5,199	0	0	0	0	0	0	0	344	0	0	344	5,542	179
Venezuela	4,060	1,238	89	0	0	0	0	0	340	340	0	2,008	6,068	195
Subtotal Other OPEC	12,814	1,238	89	0	0	0	0	0	684	340	0	2,352	15,166	469
Other														
Australia	0	0	0	0	0	0	0	0	1	0	0	1	1	(*)
Bahrain	0	0	835	0	0	0	0	0	0	0	0	835	835	27
Canada	0	0	105	0	0	0	0	0	0	0	0	105	105	3
France	0	0	0	0	0	0	0	0	0	0	0	0	0	(*)
Germany	14,785	0	0	0	0	0	0	0	0	0	1	14,785	477	1
Holland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Italy	1,360	0	0	0	0	0	0	0	0	0	0	0	1,360	44
Japan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Korea	2,151	0	0	0	0	0	0	0	0	0	0	0	2,151	70
United Kingdom	4,788	0	0	0	0	0	0	0	0	0	0	0	4,788	154
United States	0	1,262	0	0	0	0	0	0	0	0	0	0	1,262	49
Virgin Islands	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Zaire	289	0	0	0	0	0	0	0	0	0	0	0	289	10
Other Western Hemisphere	143	0	0	0	0	0	0	0	0	0	0	0	143	5
Other Eastern Hemisphere	0	0	655	0	0	0	0	0	737	6	78	1,417	48	48
Subtotal Other	23,511	0	2,962	105	(*)	0	0	0	1,263	130	115	4,523	28,034	904

See footnotes at end of table.

TABLE 21. Imports of Petroleum Products by Source and PAD District, December 1982
(Thousands of Barrels)
(continued)

Source	Crude Oil	LPG and Ethane	Unfinished Crude Oil	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Other Products	Total Petroleum	Total Daily Average
PAD District III													
Other													
Total Imports	40,187	0	4,122	194	(%)	0	0	8	1,805	520	105	6,875	47,072
PAD District IV													
Other													
Canada	1,774	571	0	0	0	0	0	(%)	9	(%)	76	656	2,430
Subtotal Other	1,774	571	0	0	0	0	0	(%)	9	(%)	76	656	2,430
Total Imports	1,774	571	0	0	0	0	0	(%)	9	(%)	76	656	2,430
PAD District V													
Arabia OPEC													
United Arab Emirates	0	0	0	368	0	0	0	0	0	0	0	368	368
Subtotal Arab OPEC	0	0	0	368	0	0	0	0	0	0	0	368	368
Other OPEC													
Indonesia	5,117	0	0	0	152	0	0	38	10	0	0	201	5,318
Venezuela	0	0	0	61	0	0	0	0	0	0	0	61	172
Subtotal Other OPEC	5,117	0	0	61	152	0	0	38	10	0	0	262	5,380
Other													
Australia	0	26	0	0	0	0	0	0	0	0	0	26	26
Bahrain	217	0	0	0	0	0	0	0	0	0	0	217	217
Canada	736	647	7	0	0	0	1	(%)	26	10	0	1,428	46
Mexico	0	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands Antilles	0	0	0	0	0	0	0	0	214	0	0	214	16
People's Republic of China	0	0	0	0	688	0	0	25	35	0	0	758	758
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	(%)	0	0	0	0	0	0	0	24	333	0	357	14
Subtotal Other	953	673	7	0	708	0	1	58	538	10	7	2,131	426
Total Imports	6,071	673	7	429	820	0	1	87	618	10	7	2,762	8,832

1 Includes crude oil reported for storage in the Strategic Petroleum Reserve.

2 Includes aviation gasoline, waxes, asphalt, kerosene, natural gasolene, naphthas, plant condensate, naphthas less than 400 degrees F, other olefins greater than 400 degrees F and miscellaneous products.

(%) Less than 500 barrels or less than 100 barrels per day.

Notes: The may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 22. Exports of Crude Oil and Petroleum Products by PAD District, December 1982
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) 1	0	36	0	0	5,934	5,970
Liquid Petroleum Gases and Ethane	53	360	1,167	(*)	160	1,740
Ethane	0	0	(*)	0	0	0
Propane	20	142	636	(*)	64	1,065
Butane	30	218	531	(*)	96	875
Butane-Propane Mixtures	0	0	0	0	0	0
Friedrich Motor Gasoline	1	1	131	0	15	208
Naphtha-Type Jet Fuel	0	0	0	0	1	1
Kerosene-Type Jet Fuel	283	0	373	0	26	682
Kerosene	(*)	0	0	0	(*)	1
Distillate Fuel Oil	779	0	3,162	0	495	4,436
Heating Fuel Oil	(*)	0	3,162	0	495	4,436
Naval Fuel Oil	41	5	135	(*)	2,394	2,575
Other Oil < 400 Deg. for Petroleum, Feedstock	1	16	652	(*)	0	670
Other Oil > 400 Deg. for Petroleum, Feedstock	3	2	10	(*)	1	24
Lubricants	66	11	295	(*)	63	438
Wax	5	(*)	10	0	6	21
Petroleum Coke	60	302	2,653	(*)	3,273	6,308
Asphalt	154	1	1	1	1	159
Miscellaneous Products	12	1	16	(*)	3	32
Total Product Exports	1,490	699	11,962	3	6,634	20,657
Total Exports	1,490	735	11,962	3	12,568	26,657

1 Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(*) Less than 500 barrels.

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

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, December 1982
(Thousands of Barrels)

Destination	Crude Oil	LPG and Ethane	Fresh Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphtha	Lubricants	Wax	Petro-chem Coke	Asphalt	Other	Total	Total (Days Average)
Argentina	0	1	0	0	0	0	(M)	(M)	(M)	50	(M)	2	53	2
Australia	0	1	0	0	0	0	(M)	(M)	(M)	55	(M)	2	61	2
Bahrain	0	5	1	0	0	100	(M)	3	0	0	0	(M)	106	3
Belgium & Luxembourg	0	0	0	0	0	0	(M)	(M)	0	0	0	(M)	1	(M)
Brazil	0	140	0	0	99	0	(M)	(M)	(M)	845	(M)	(M)	985	32
Canada	0	(M)	0	0	0	0	0	(M)	1	0	0	0	141	5
Chile	36	395	1	0	0	648	3	34	1	437	4	36	1,595	(M)
China (Taiwan)	0	0	0	0	0	0	0	0	(M)	123	0	1	4	(M)
Colombia	0	(M)	0	0	0	0	0	10	(M)	0	0	(M)	12	(M)
Costa Rica	0	(M)	0	0	0	0	(M)	(M)	0	0	0	(M)	4	(M)
Denmark	0	0	0	0	0	0	0	(M)	(M)	0	0	(M)	12	(M)
Dominican Republic	0	11	0	0	0	0	(M)	7	1	0	0	(M)	1	(M)
Ecuador	0	0	0	0	0	0	(M)	1	0	0	0	(M)	1	(M)
Egypt	0	0	0	0	0	0	(M)	9	0	0	0	(M)	9	(M)
El Salvador	0	0	0	0	0	0	(M)	0	0	0	0	(M)	0	(M)
Finland	0	0	0	0	0	0	(M)	0	0	0	0	(M)	0	(M)
France	0	53	0	0	184	23	(M)	1	0	716	(M)	161	1,115	36
French Pacific Is.	0	0	0	0	0	0	(M)	(M)	0	0	0	(M)	0	(M)
Germany	0	0	0	0	0	0	(M)	(M)	0	31	0	0	31	1
Ghana	0	1	0	0	0	833	0	(M)	0	76	0	(M)	9	29
Guatemala	0	0	0	0	0	0	(M)	5	3	0	0	(M)	9	(M)
Guinea	0	0	0	0	0	0	(M)	(M)	0	0	0	(M)	0	(M)
Hong Kong	0	0	0	0	0	0	(M)	8	0	0	0	(M)	8	(M)
India	0	0	0	0	0	0	(M)	0	(M)	27	0	(M)	28	1
Indonesia	0	0	0	0	0	0	(M)	25	(M)	0	0	(M)	25	1
Ireland	0	0	0	0	0	0	(M)	0	0	0	0	(M)	0	0
Israel	0	0	0	0	0	0	(M)	0	0	0	0	(M)	0	0
Italy	0	349	0	0	224	326	0	(M)	1	230	0	348	1,298	45
Ivory Coast	0	0	0	0	0	0	(M)	5	0	1	0	(M)	6	(M)
Japan	0	0	0	0	0	0	(M)	22	(M)	2	1,211	0	1,366	1
Jordan	0	20	(M)	0	66	310	11	4	0	0	0	54	1,089	55
Korea, Republic of	0	0	0	0	0	1,044	0	(M)	3	28	0	0	1,372	44
Kuwait	0	0	0	0	0	0	0	2	(M)	0	152	2	155	5
Lebanon	0	0	0	0	0	0	0	2	(M)	0	0	(M)	2	(M)
Liberia	0	0	0	0	0	0	0	(M)	1	0	0	(M)	1	(M)
Malaysia	0	635	0	0	0	0	0	16	6	37	0	0	1,083	36
Mexico	0	48	0	0	1,093	1,093	5	8	0	1,048	(M)	24	3,093	123
Netherlands	0	0	0	0	0	0	0	(M)	(M)	0	0	(M)	1	(M)
New Zealand	0	0	0	0	0	0	0	0	0	0	0	(M)	0	(M)
Nigeria	0	0	0	125	0	0	0	20	0	0	0	(M)	21	1
Norway	0	0	0	0	0	0	0	43	0	0	0	(M)	159	5
Oman	0	0	0	0	0	0	0	(M)	(M)	55	0	(M)	96	(M)
Panama Canal Zone	0	0	0	0	0	0	0	0	0	0	0	(M)	0	(M)
Paraguay	0	0	0	0	0	0	0	19	0	0	0	(M)	21	1
Peru	0	0	0	0	0	0	0	3	(M)	0	0	(M)	3	(M)
Philippines	0	0	0	0	0	0	0	8	1	(M)	0	2	12	(M)

See footnotes at end of table.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, December 1962

(Thousands of Barrels)

Destination	Crude Oil 1	LPG and Ethane	Flushed Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphtas	Lubricants	Wax	Petroleum Coke	Asphalt	Other	Total	Total (Daily Average)
Puerto Rico	1,491	16	(*)	0	0	362	1	12	1	0	0	0	2,851	76
Rep. of South Africa	0	0	0	0	0	0	0	0	5	(*)	0	0	149	132
Saudi Arabia	0	3	0	0	0	0	0	20	0	0	0	0	3	26
Singapore	0	1	0	0	0	470	(*)	6	0	0	0	0	2	478
Spain	0	0	0	0	0	0	0	0	0	0	0	0	2	762
Surinam	0	0	0	0	0	0	0	1	0	0	0	0	1	762
Sweden	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Switzerland	0	0	0	0	0	469	0	0	0	0	0	0	0	15
Thailand	0	0	0	0	0	453	0	0	0	0	0	0	0	454
Trinidad and Tobago	0	(*)	0	0	0	0	0	0	0	0	0	0	1	2
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	2
United Arab Emirates	0	0	0	0	0	0	0	0	0	0	0	0	0	2
United Kingdom	0	(*)	0	0	0	0	0	0	0	0	0	0	0	2
U.S.S.R.	0	1	0	150	224	331	0	10	0	62	0	14	762	26
Uruguay	0	0	0	0	0	0	0	81	0	222	0	13	316	10
Venezuela	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Virgin Islands	0	2	0	0	0	0	0	0	0	0	0	0	2	51
West Germany	3,456	(*)	0	0	0	738	0	0	0	0	0	0	4,194	136
Yugoslavia	0	0	0	0	0	206	0	0	0	0	0	0	105	312
Other	547	0	0	0	0	0	0	0	0	0	0	0	0	45
Total	5,970	1,740	228	653	4,436	5,771	24	438	21	6,208	139	889	26,697	860

1. Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange, on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(*) Less than 500 barrels or less than 500 barrels per day.

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

Sources: See Explanatory Notes on Data Collection and Estimation.

Crude Oil and Petroleum Products by PAD District, December 31, 1982

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			United States		
	East Coast	Appalachian	Ind. & Ill. No.	Wisc. Minn.	Chia. No.	Texas	La. No.	New Mexico	Total	Rocky Mts.	West Coast				
Crude Oil (incl. lease condensate)															
Refinery	—	15,182	—	—	—	—	—	—	15,811	—	—	41,525	1,733	25,310	96,681
Tank Farms and Pipelines	—	2,265	—	—	—	—	—	—	60,989	—	—	98,125	30,119	303,330	533,059
Leases	—	65	—	—	—	—	—	—	1,569	—	—	17,108	1,782	2,949	23,907
Strategic Petroleum Reserve?	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Station in-Transit	—	—	—	—	—	—	—	—	—	—	—	281,627	0	0	281,627
Total	—	17,512	—	—	—	—	—	—	78,469	—	—	22,643	0	22,643	22,643
												431,592	13,436	80,554	841,582
Petroleum Products															
Refinery	42,866	3,022	48,488	686	42,671	6,263	20,039	49,782	10,367	71,175	47,632	5,371	1,441	175,306	65,965
Bus. Terminal	141,110	8,542	149,552	3,879	40,556	8,785	11,981	55,311	4,788	30,064	6,136	3,593	54	12,420	332,056
Pipeline	28,456	2,715	29,171	1,294	12,436	3,652	16,219	35,901	7,444	6,963	7,461	1,293	403	42,144	43,931
Natural Gas Processing Plant	429	572	1,001	0	2,441	120	16,183	19,750	5,480	10,363	9,279	3,618	1,053	37,437	3,613
Total	210,861	15,451	226,312	6,159	88,004	19,150	66,431	189,744	27,585	126,525	72,462	27,815	3,728	260,524	201,997
															767,564
Natural Gasoline and kerosene															
Refinery	2	0	2	0	28	136	105	268	37	89	173	1	24	324	630
Pipeline	0	0	0	0	129	17	262	414	211	33	110	81	10	162	5
Natural Gas Processing Plant	4	24	25	0	26	16	1,614	1,659	332	474	33	40	2,522	12	1,011
Total	6	24	27	0	183	168	1,967	2,359	580	1,696	647	115	145	3,366	6,007
Hydrocracked Steam															
Refinery	0	0	0	0	78	0	16	94	0	28	28	0	0	58	0
Natural Gas Processing Plant	0	0	0	0	162	2	2,114	2,218	223	724	56	1	167	1,172	32
Total	0	0	0	0	180	2	2,130	2,312	223	752	84	1	167	1,228	32
Plant Condensate															
Refinery	0	0	0	0	5	0	0	5	12	86	0	82	0	180	0
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	814	269	49	4	17	1,153	0
Total	0	0	0	0	5	0	0	5	12	868	352	86	19	1,310	0
Ethane															
Refinery	0	0	0	0	6	0	0	6	0	377	0	0	0	377	0
Bus. Terminal	0	0	0	0	50	0	42	92	0	289	0	0	0	389	0
Pipeline	0	0	0	0	43	840	152	1,135	167	79	107	0	3	366	0
Natural Gas Processing Plant	0	0	0	0	25	0	850	874	386	1,390	302	(9)	0	2,060	1
Total	0	0	0	0	126	940	1,044	2,108	558	2,135	408	(9)	3	3,102	1
Propane for Petrochemical Feedstock Use															
Refinery	55	0	55	0	30	0	2	82	0	5	417	0	0	422	0
Total	55	0	55	0	30	0	2	82	0	5	417	0	0	422	0
Propane for Other Uses															
Refinery	650	8	658	4	1,191	39	302	1,536	77	699	1,005	3	5	1,778	162
Bus. Terminal	606	0	606	0	1,083	82	300	1,465	134	1,010	126	32	0	10,962	235
Pipeline	1,513	2,406	3,919	3	4,290	254	1,948	3,653	472	408	240	518	152	1,759	31
Natural Gas Processing Plant	392	0	392	0	1,016	91	173	1,290	453	2,049	5,602	1,270	10,803	146	298
Total	2,544	2,991	4,905	7	5,581	486	10,729	17,085	3,376	16,700	6,942	4,623	367	31,113	460
															473
															473

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, December 31, 1982
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			Unbond States
	East Coast	Appalachian	Total	Ind. & Res.	Wholesale	Chas. & Mfg.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La. Am.	New Mexico	Total	
Butane for Petro. Feed. Use													
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Butane for Other Uses													
Refinery	182	0	182	208	53	194	74	379	543	4	0	2,004	2,509
Bulk Terminal	236	0	236	0	206	0	73	279	95	2,230	0	0	2,540
Pipeline	33	65	98	58	724	15	329	1,123	875	19	140	77	2,481
Natural Gas Processing Plant	17	7	23	0	58	0	871	930	893	3,233	1,894	82	7,502
Total	468	72	539	290	1,196	77	1,464	2,687	1,907	5,861	2,442	268	15,362
Butane-Propene Mixtures for Petro. Feed. Use													
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Butane-Propene Mixtures for Other Uses													
Refinery	0	0	0	0	0	0	0	1	10	11	0	7	217
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline	0	0	0	130	0	20	604	796	14	0	1	1,415	1,435
Natural Gas Processing Plant	0	0	0	11	0	36	47	58	2	(8)	1	0	111
Total	0	0	0	141	0	56	197	661	908	25	1	1,503	1,893
Ethane-Propene Mixtures													
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline	0	0	0	66	0	437	529	318	40	2	0	114	2,304
Natural Gas Processing Plant	0	0	0	0	0	1,208	318	430	2	0	109	4,733	5,459
Total	0	0	0	66	0	1,742	832	6,773	2	0	223	7,831	9,774
Isobutane													
Refinery	0	8	8	33	124	25	164	348	100	133	432	13	1,087
Bulk Terminal	0	0	0	0	53	0	92	145	90	1,275	0	0	1,518
Pipeline	19	0	19	0	915	0	76	391	139	11	0	130	810
Natural Gas Processing Plant	1	2	3	0	23	0	1,233	321	1,826	38	71	3,445	4,762
Total	19	10	29	33	513	27	1,465	3,449	678	1,616	262	139	6,297
Other Hydrocarbons and Alcohol													
Refinery	83	26	109	0	70	0	0	70	1	86	40	0	311
Total	83	26	109	0	70	0	0	70	1	86	40	0	311
Unrefined Oils													
Refinery	3,265	315	3,580	43	2,570	122	1,139	3,874	701	6,228	4,346	141	24,103
Naphthenes and Lighter	1,896	9	1,905	0	2,058	8	782	2,616	416	5,083	1,343	36	18,734
Kerosene and Lighter Gas Oils	5,794	357	6,151	87	4,708	320	1,802	6,822	848	11,502	878	11,229	44,550
Heavy Gas Oils	1,711	309	2,020	4	2,026	21	1,247	4,170	542	3,560	3,219	45	19,881
Residuum	12,666	990	13,656	134	12,234	476	4,940	17,784	2,587	27,273	15,106	895	52,330
Total	12,666	990	13,656	134	12,234	476	4,940	17,784	2,587	27,273	15,106	895	52,330

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, December 31, 1982
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II				PAD District III			PAD District IV			United States			
	Exist. Coast	Approp. chm. ST	Total	Ind. St. Rpt.	Wholesale, Min., No.	Total	Traces Inland Coast	Traces Gulf Coast	No. Lic. Act.	New Mexico	Total	Dist. IV Rocky Mtn.	Dist. V Coast				
Motor Gasoline Blending Components																	
Bulk Terminal	4,958	105	5,061	32	5,093	853	1,678	8,294	1,969	8,398	100	183	18,358	2,473	7,814	40,100	
Pipeline	218	1	220	0	5	92	2	180	49	0	0	0	49	0	45	494	
Total	5,175	106	5,281	32	5,079	867	2,277	8,000	2,018	8,398	100	183	18,442	2,473	7,859	40,593	
Aviation Gasoline Blending Components																	
Refinery	5	0	5	0	140	0	9	149	37	70	269	0	316	0	22	402	
Total	5	0	5	0	140	0	9	149	37	70	269	0	316	0	22	402	
Total Finished Motor Gasoline																	
Refinery	6,051	327	6,358	107	5,920	1,315	3,744	11,086	2,966	8,120	326	206	18,123	2,884	8,373	46,824	
Pipeline	3,475	1,890	5,365	1,090	18,045	3,962	5,301	29,228	3,283	32,511	994	328	33,499	1,849	9,578	93,307	
Natural Gas Processing Plant	14,114	718	15,139	629	6,004	1,322	7,896	15,653	4,391	4,316	2,965	19	19,623	1,313	2,964	54,251	
Total Finished Motor Gasoline	57,746	4,440	62,206	2,626	29,969	6,629	15,943	56,167	7,157	18,107	12,289	11,425	717	48,795	8,096	20,312	194,436
Finished Leaded Motor Gasoline																	
Refinery	2,534	187	2,721	49	2,778	852	2,125	5,803	1,383	3,866	3,090	768	162	9,180	1,868	3,553	23,196
Pipeline	17,684	1,806	19,290	974	9,236	2,384	3,425	13,569	1,263	2,018	770	1,025	159	6,158	1,193	5,017	47,657
Natural Gas Processing Plant	6,760	283	7,043	345	2,978	871	4,395	8,576	985	2,455	1,742	4,391	85	9,718	835	1,113	27,268
Total	27,004	2,066	28,000	1,367	14,993	4,087	9,895	30,378	3,697	9,349	5,811	6,122	376	25,056	3,894	5,663	98,161
Finished Unleaded Motor Gasoline																	
Refinery	3,497	150	3,627	69	3,198	460	1,619	5,280	1,013	4,267	3,205	220	109	8,043	994	4,813	20,657
Pipeline	19,595	1,899	21,404	916	8,797	1,603	8,170	13,181	1,054	2,980	867	1,041	139	5,791	556	4,238	40,990
Natural Gas Processing Plant	7,530	435	8,065	294	3,059	480	3,511	7,272	1,473	1,796	2,576	4,034	86	9,375	478	1,151	28,948
Total	30,721	2,374	33,105	1,259	14,895	2,541	7,002	25,737	3,550	8,767	6,748	5,303	341	24,709	2,131	10,222	99,304
Gasohol																	
Refinery	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
Bulk Terminal	12	0	12	0	42	0	6	48	0	0	0	0	0	0	0	0	0
Pipeline	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Total	12	0	12	0	45	1	6	52	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline																	
Refinery	12	0	12	0	81	0	28	110	22	365	92	0	479	44	223	868	
Bulk Terminal	352	64	416	1	279	48	87	413	42	5	2	23	16	88	23	391	1,331
Pipeline	0	0	0	0	10	0	9	19	9	5	0	0	14	0	0	0	0
Natural Gas Processing Plant	0	0	0	0	0	0	0	74	0	0	0	0	74	0	0	74	0
Total	364	64	428	1	370	46	125	542	147	375	94	23	16	635	67	514	2,306
Jet-A-Type Jet Fuel																	
Refinery	291	36	327	0	418	29	270	715	282	520	467	190	1,597	251	831	3,691	
Bulk Terminal	18	10	28	9	16	46	160	380	118	52	0	44	0	212	13	95	726
Pipeline	199	0	199	21	16	90	76	259	85	0	62	110	228	485	85	386	1,394
Total	468	46	514	30	591	171	512	1,354	495	572	529	344	356	2,394	349	1,212	5,073

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, December 31, 1952
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			United States		
	East Coast	Apalachicola Bay	Total	Ind. Ill. Ky.	Miss. Okla. Tex. Mo.	Total	Tex. Gulf Coast	La. Ark.	New Mexico	Total	Dist. IV West Coast	Dist. V West Coast			
Kerosene-Type Jet Fuel															
Refinery	1,191	0	1,191	43	1,172	104	305	1,813	2,262	17	23	4,410	379	3,919	10,830
Bulk Terminal	4,414	178	4,592	59	2,923	236	543	3,491	228	1,072	69	44	37	1,484	15,616
Pipeline	3,164	0	3,164	84	3,577	211	1,490	2,342	418	787	729	1,113	37	3,087	11,222
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	8,769	288	9,057	186	4,982	551	2,235	7,254	951	3,072	3,067	1,174	97	8,361	63,919
Kerosene															
Refinery	307	90	397	0	592	44	225	839	92	840	440	0	54	1,403	13
Bulk Terminal	3,815	403	4,218	230	1,272	70	21	1,593	14	332	36	24	0	406	29
Pipeline	990	2	992	26	129	0	39	194	31	70	390	175	0	576	0
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4,712	495	5,207	256	1,993	114	283	2,546	90	1,242	785	207	54	2,387	42
Total Distillate Fuel Oils															
Refinery	8,088	305	8,393	53	7,579	2,119	4,870	14,421	1,361	8,559	8,102	1,311	329	15,593	2,483
Bulk Terminal	61,396	3,232	64,628	1,379	13,725	3,430	4,425	22,928	1,264	4,900	1,923	1,093	153	8,686	980
Pipeline	7,152	307	7,459	473	2,853	1,095	5,209	9,630	667	1,940	1,585	4,637	114	8,963	701
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	75,544	4,944	80,488	1,905	24,157	6,644	14,305	47,011	3,377	14,795	8,398	7,041	630	34,343	4,024
Dist. Fuel Oils Less No. 4 Fuel Oil															
Refinery	0,086	408	8,584	53	7,542	2,119	4,870	14,384	1,344	8,130	8,044	1,290	326	16,033	2,455
Bulk Terminal	59,901	3,232	63,133	1,371	13,692	3,430	4,425	22,888	1,244	4,900	1,923	1,093	153	8,686	980
Pipeline	7,152	307	7,459	473	2,853	1,095	5,209	9,630	667	1,940	1,585	4,637	114	8,963	701
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	75,139	4,937	79,176	1,887	24,057	6,644	14,305	46,903	3,326	14,560	8,104	6,990	572	33,902	4,018
No. 4 Fuel Oil															
Refinery	0	7	7	0	37	0	0	37	37	238	148	81	58	560	8
Bulk Terminal	1,405	0	1,405	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,405	7	1,412	0	37	0	0	37	37	238	148	81	58	560	8
Residual Fuel Oils															
Refinery	4,483	137	4,620	111	2,900	379	159	3,149	317	5,150	4,663	279	40	10,345	634
Bulk Terminal	25,557	577	26,134	153	1,107	170	643	2,073	211	1,616	4,169	41	0	6,027	0
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	34,040	714	34,754	264	3,607	549	802	5,222	518	6,767	8,639	320	40	16,374	634
Asphalt < 400 Deg. Petro. Feedstock															
Refinery	102	0	102	0	87	0	85	182	108	969	330	9	0	1,416	0
Total	102	0	102	0	87	0	85	182	108	969	330	9	0	1,416	0
Other Oils > 400 Deg. Petro. Feedstock															
Refinery	5	0	5	0	185	0	1	185	343	832	264	42	0	1,441	0
Total	5	0	5	0	185	0	1	185	343	832	264	42	0	1,441	0

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, December 31, 1962
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			United States				
	East Coast	Apalachee	Total	Apalachee	Ind. Ill. Ky	Miss. Wisc. Ohio, Pa.	Texas	La. Gulf Coast	No. La. Ark.	New Mexico	Total	PAD In-House		Dist. V	West Coast		
Special Naphthas																	
Refinery	28	42	70	0	210	0	165	375	56	129	0	1,517	9	231	2,202		
Bulk Terminal	750	73	823	46	204	5	0	255	0	21	0	23	0	34	1,285		
Natural Gas Processing Plant	0	0	0	0	0	0	0	137	0	0	0	137	0	0	137		
Total	778	115	893	46	414	5	165	630	56	150	0	1,677	9	265	3,414		
Lubricants																	
Refinery	80	457	545	0	44	0	49	93	0	207	56	0	0	363	4	39	1,034
Bright Stock	485	485	970	0	597	0	334	1,101	0	1,852	1,002	84	0	2,300	68	572	5,634
Neutral	17	17	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	821	188	1,009	83	434	18	77	612	12	17	210	50	0	299	3	502	2,425
Bulk Terminals	2,001	1,279	3,279	83	1,131	18	796	2,008	59	3,004	1,549	345	0	5,057	84	1,223	12,531
Total																	
Wax, Microcrystalline	4	20	24	0	0	0	12	19	26	25	11	0	0	62	0	0	106
Refinery	4	20	24	0	0	0	12	12	26	25	11	0	0	62	0	0	106
Total																	
Wax, Crystalline-Fully Refined	16	66	82	0	18	0	38	59	0	93	183	0	0	270	10	41	465
Refinery	16	66	82	0	18	0	38	59	0	93	183	0	0	270	10	41	465
Total																	
Wax, Crystalline-Other	6	74	80	0	0	0	11	11	0	108	0	0	0	108	0	16	215
Refinery	6	74	80	0	0	0	11	11	0	108	0	0	0	108	0	16	215
Total																	
Petroleum Coke	801	0	801	0	816	132	1,026	1,974	1	137	623	268	0	929	776	2,241	6,721
Refinery	801	0	801	0	816	132	1,026	1,974	1	137	623	268	0	929	776	2,241	6,721
Total																	
Asphalt	1,674	28	1,702	308	2,148	731	971	4,026	635	573	976	679	187	3,020	1,451	1,289	11,328
Refinery	1,674	28	1,702	308	2,148	731	971	4,026	635	573	976	679	187	3,020	1,451	1,289	11,328
Bulk Terminal	1,706	401	2,107	124	1,107	666	130	2,077	0	225	72	0	287	0	75	4,396	15,664
Total	3,160	439	3,619	330	3,255	1,417	1,101	6,133	635	573	1,201	751	157	3,317	1,451	1,364	15,664
Road Oil	0	0	0	0	15	0	0	15	0	0	0	0	0	0	0	32	47
Refinery	0	0	0	0	15	0	0	15	0	0	0	0	0	0	0	32	47
Total																	
Miscellaneous Products																	
Refinery	310	52	362	1	84	12	15	92	49	436	359	50	0	894	0	196	1,534
Bulk Terminal	19	0	19	0	14	2	3	19	0	11	13	0	0	24	0	123	157
Pipeline	0	0	0	0	0	0	15	15	41	2	0	0	0	43	0	58	117
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	329	52	381	1	98	14	33	130	130	442	371	65	0	1,009	1	311	1,652
Total Stocks, All Oils			245,324					268,213						712,116	34,033	170,741	1,428,927

1 Crude oil stocks are not collected by refinery district.
2 Less than 200 barrels.
3 Less than 500 barrels.
4 Less than 100 barrels.
5 Note: Total may not equal sum of components due to independent rounding.
6 Source: See Explanatory Notes on Data Collection and Estimation.
7 Not Applicable.

Table 25. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, December 1982
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	I	II	III	V	I	II	III	IV	V	I	II	III	V	I	II
Crude Oil	43	0	0	0	0	0	0	0	0	423	1,271	0	0	0	0
Petroleum Products	8,433	436	0	2,705	5,517	2,568	0	86,934	27,511	0	2,902	1,300	69	1,300	316
Natural Gasoline and Isopentane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unrefined Petroleum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases	0	25	0	471	1,938	198	0	2,108	7,147	0	0	0	0	0	0
Unrefined Oil	28	208	0	0	0	0	0	742	43	0	346	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	914	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	2,755	0	0	1,256	2,032	1,471	0	47,214	10,790	0	914	487	0	816	0
Finished Low-Speed Motor Gasoline	3,135	0	0	630	1,099	723	0	20,335	4,963	0	521	334	0	550	0
Finished Unleaded Motor Gasoline	2,052	0	0	1,636	933	745	0	26,871	5,857	0	393	153	0	286	0
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	133	0	0	0	0	23	0	151	95	0	0	0	0	0	0
Naphtha-Type Jet Fuel	328	0	0	100	132	0	0	863	0	0	231	70	0	95	0
Kerosene-Type Jet Fuel	73	0	0	100	90	719	0	8,344	2,114	0	216	8	0	55	0
Kerosene	0	0	0	0	2	0	0	1,233	99	0	0	0	0	0	0
Distillate Fuel Oil	1,864	50	0	233	548	157	0	21,777	4,502	0	394	211	0	334	0
Decade Fuel Oil Less No. 4	1,264	40	0	233	548	157	0	21,659	4,502	0	394	211	0	334	0
No. 4 Fuel Oil	0	10	0	0	0	0	0	138	0	0	0	0	0	0	0
Residual Fuel Oil	0	0	0	63	394	0	0	2,568	155	0	693	0	0	0	0
Naphtha and Other Oils for Petro.	18	0	0	28	36	0	0	79	32	0	0	0	0	0	0
Feedstock	0	0	0	0	15	0	0	248	102	0	0	0	0	0	0
Special Naphtha	27	37	0	62	21	0	0	594	147	0	108	0	0	0	20
Lubricants	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0
Wax	0	0	0	0	0	0	0	192	341	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	616	60	0	0	0	0	0	0
Miscellaneous Products	37	8	0	175	0	0	0	0	0	0	0	0	0	0	20
Total All Products	8,476	436	0	2,705	5,517	2,568	0	86,957	28,782	0	2,902	1,300	69	1,300	3,066
															14,111

Notes: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 26. Movements of Petroleum Products by Pipeline Between PAD Districts, December 1982
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	I	II	III	IV	V	VI	I	II	III	IV	V	VI	I	II	III
Natural Gasoline and Isopentane	0	0	336	0	0	1,078	0	0	342	0	0	12	0	0	0
Unrefined Petroleum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquid Petroleum Gases	0	471	1,338	180	1,905	7,147	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	77	57	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Freshed Motor Gasoline	4,526	1,365	2,032	1,471	37,416	10,035	0	914	487	0	816	0	0	0	0
Freshed Leaded Motor Gasoline	2,364	558	1,099	723	16,289	4,548	0	521	334	0	550	0	0	0	0
Freshed Unleaded Motor Gasoline	1,862	907	933	748	21,127	5,478	0	383	153	0	386	0	0	0	0
Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gasoline	0	0	132	0	22	17	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	213	95	98	719	5,735	1,851	0	261	75	0	95	0	0	0	0
Kerosene	43	0	0	0	887	99	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,318	190	520	157	16,380	4,070	0	594	211	0	334	0	0	0	0
No. 4 Fuel Oil	1,318	190	520	157	16,380	4,070	0	594	211	0	334	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mechanical Products	0	119	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5,890	2,303	5,046	2,568	64,525	25,353	0	1,795	1,200	69	1,300	0	0	0	0

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 27. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, December 1982
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
Crude Oil	43	0	0	0	0	0	0	423	0	423	0	1,271	0	2,750	0
Petroleum Products	2,633	438	0	402	459	0	22,011	2,673	5,140	14,190	2,238	1,147	316	0	14,071
Liquid Petroleum Gases	0	25	0	0	0	0	113	0	0	183	0	0	0	0	0
Unrefined Petroleum	28	208	0	0	0	0	742	57	685	0	45	346	0	0	0
Freshed Motor Gasoline	1,259	0	0	191	0	0	3,788	746	8,590	764	0	0	0	0	0
Aviation Gasoline	133	0	0	0	0	0	114	11	324	0	0	0	0	0	0
Naphtia-Type Jet Fuel	145	0	0	0	0	0	469	11	134	324	0	0	0	0	0
Kerosene-Type Jet Fuel	30	0	0	7	0	0	2,649	230	412	1,917	283	0	0	0	0
Kerosene	666	90	0	2	0	0	3,468	698	1,032	1,758	332	0	0	0	0
Distillate Fuel Oil	0	109	0	63	394	0	2,606	875	981	750	155	693	316	0	0
Residual Fuel Oil	18	0	0	28	36	0	719	0	90	29	22	0	0	0	0
Naphtia and Other Oils for Petro. Prod. Use	22	0	0	15	0	0	3,353	39	1,312	1,312	0	0	0	0	0
Lubricants	22	37	0	62	21	0	554	7	372	175	141	108	0	20	0
Wax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	192	0	192	341	0	0	0	0	0
Mechanical Products	37	8	0	0	0	0	616	10	561	15	31	0	0	0	0
Total	2,676	438	0	402	459	0	22,434	2,673	5,571	14,190	2,479	1,147	3,066	0	14,111

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 28. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts, December 1982
(Thousands of Barrels)

Commodity	P.A.D. District I			P.A.D. District II			P.A.D. District III			P.A.D. District IV			P.A.D. District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Cruise Oil	3,173	43	3,130	1,214	10,790	26,254	14,671	1,694	12,377	0	0	0	0	16,321	-18,321
Petroleum Products	85,555	8,669	80,886	37,144	10,790	26,254	5,262	118,947	-110,885	2,569	2,569	-1	4,202	356	3,846
Natural Gasoline	0	0	0	1,480	328	1,094	308	1,078	-740	0	0	0	0	0	0
Unfractionated Steam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases	2,679	26	2,654	7,224	2,607	4,617	2,020	9,255	-7,235	196	134	64	0	0	0
Motor Gasoline	742	235	506	73	0	73	200	1,132	-925	0	0	0	346	0	346
Motor Gasoline Blending Components	0	0	0	914	0	914	0	914	-914	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	48,770	9,745	43,015	17,032	6,069	11,073	2,032	98,918	-56,886	1,471	1,303	168	1,730	0	1,730
Finished Motor Gasoline	20,965	3,133	17,832	6,370	2,452	5,916	1,099	35,759	-34,660	723	884	-161	1,071	0	1,071
Finished Unblended Motor Gasoline	27,805	2,622	25,183	6,662	2,507	5,035	933	33,159	-32,226	748	419	329	659	0	659
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Furnished Aviation Gasoline	151	0	151	95	23	72	0	246	-765	23	170	-170	328	0	328
Naphtia-Type Jet Fuel	843	153	510	220	132	95	132	10,954	-10,747	719	68	656	271	0	271
Kerosene-Type Jet Fuel	5,444	358	5,086	2,450	305	1,571	0	1,932	-1,282	0	0	0	0	0	0
Kerosene	20,710	2,024	19,278	6,857	838	5,659	598	20,573	-25,075	157	545	-388	728	0	728
Distillate Fuel Oil	22,072	2,024	19,248	8,597	838	5,659	908	26,435	-35,847	157	545	-388	728	0	728
Distillate Fuel Oil Less No. 4	130	108	125	0	0	0	10	138	-128	0	0	0	0	0	0
No. 4 Fuel Oil	2,942	108	2,877	155	457	-302	502	3,454	-2,952	0	0	0	668	316	377
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtia and Other Oils for Petro.	1,067	15	80	40	64	-34	36	101	-65	0	0	0	0	0	0
Feedstock Use	268	0	268	102	18	87	0	360	-350	0	0	0	168	20	85
Special Naphtias	510	64	552	114	83	51	16	493	-373	0	0	0	0	0	0
Lubricants	182	0	182	34	0	341	0	523	-323	0	0	0	0	0	0
Wax and Fuel Oil	182	0	182	34	0	341	0	523	-323	0	0	0	0	0	0
Wax and Fuel Oil	791	45	746	37	175	-70	28	676	-648	0	0	0	0	20	-20
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total All Products	92,728	9,912	83,816	38,458	10,790	27,568	20,133	116,441	-96,508	2,668	2,509	-1	4,202	17,177	-12,375

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

Table 29. PRODUCTION OF SULFUR FUEL OIL AND RESIDUAL FUEL OIL BY SULFUR CONTENT, DECEMBER 1982
(Thousands of Barrels)

[illegible]

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Stocks of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, December 1982
(Thousands of Barrels)

Commodity	PAC District I			PAC District II			PAC District III			PAC District IV			United States			
	East Coast	Appalachian	Total	Appalachian	Inland	Total	Chesapeake	Mem. W. Va.	Total	Texas Gulf Coast	La. Gulf Coast	New Mexico		Total	PAC Dist. V	Rocky West
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
No. 4 Fuel Oil - 0.00 to 0.20% Sulfur																
Refinery	0	7	7	0	4	4	0	0	0	4	0	12	4	0	16	0
Bulk Terminal	474	0	474	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	474	7	481	0	4	4	0	0	0	4	0	12	4	0	16	0
No. 4 Fuel Oil - 0.31 to 0.50% Sulfur																
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bulk Terminal	70	0	70	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	70	0	70	0	0	0	0	0	0	0	0	0	0	0	0	0
No. 4 Fuel Oil - 0.51 to 1.00% Sulfur																
Refinery	0	0	0	0	12	12	28	236	19	3	56	344	0	23	379	0
Bulk Terminal	398	0	398	0	63	63	0	0	11	0	0	11	0	0	472	0
Total	398	0	398	0	75	75	28	236	30	3	56	355	0	23	851	0
No. 4 Fuel Oil - 1.01 to 2.00% Sulfur																
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	3	15	21
Bulk Terminal	383	0	383	0	0	0	0	0	0	0	0	0	0	3	37	430
Total	383	0	383	0	0	0	0	0	0	0	0	0	0	3	52	451
No. 4 Fuel Oil - Greater Than 2.00% Sulfur																
Refinery	0	0	0	0	13	13	0	0	13	0	115	74	0	190	0	18
Bulk Terminal	70	0	70	0	8	8	14	0	55	0	171	74	0	189	0	18
Total	70	0	70	0	21	21	14	0	169	0	286	148	0	379	0	366
Residual Fuel Oil - 0.00 to 0.20% Sulfur																
Refinery	590	25	615	0	5	5	11	56	275	42	12	15	402	109	523	1,660
Bulk Terminal	4,190	0	4,190	0	25	25	0	0	2,508	2	0	2	2,512	0	7,023	8,663
Total	4,780	25	4,805	0	30	30	11	56	2,513	44	12	17	2,514	109	7,526	10,323
Residual Fuel Oil - 0.31 to 0.50% Sulfur																
Refinery	847	4	851	0	104	104	0	6	110	3	25	8	133	51	1,115	2,940
Bulk Terminal	2,881	0	2,881	0	34	34	0	24	0	20	0	0	26	0	3,031	3,681
Total	3,728	4	3,732	0	138	138	0	30	113	23	25	8	159	51	1,115	6,621
Residual Fuel Oil - 0.51 to 1.00% Sulfur																
Refinery	1,541	0	1,541	111	861	0	70	1,042	150	1,116	1,431	15	4	2,715	1,357	5,992
Bulk Terminal	7,056	60	7,116	66	598	11	24	610	117	246	279	0	0	862	8,710	10,323
Total	8,597	60	8,657	177	1,370	11	94	1,652	267	1,362	1,710	15	4	3,577	14,779	21,315
Residual Fuel Oil - 1.01 to 2.00% Sulfur																
Refinery	503	106	611	0	659	139	62	660	66	567	632	14	0	1,279	4,395	7,097
Bulk Terminal	2,615	418	3,033	87	384	107	474	1,082	0	512	435	22	0	969	1,016	6,293
Total	3,118	524	3,642	87	1,043	246	536	1,062	66	1,079	1,067	36	0	2,248	5,311	13,377
Residual Fuel Oil - Greater Than 2.00% Sulfur																
Refinery	582	0	582	0	871	240	15	1,135	40	3,187	2,347	141	21	5,716	286	6,640
Bulk Terminal	12,215	79	12,294	0	158	52	145	352	84	832	948	17	0	1,862	336	14,664
Total	12,797	79	12,876	0	1,029	292	160	1,478	124	3,999	3,295	158	21	7,578	286	21,304
Residual Fuel Oil - Sulfur Content Not Specified																
Pipeline	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	17
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	18

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 31. Imports of Residual Fuel Oil by major Continent by Country of Origin, December 1982
(Thousands of Barrels)

Country	Residual Fuel Oil					Total
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater than 2.00%	
Arab OPEC						
Algeria	1,518	195	0	0	18	1,728
Iran	0	0	0	0	0	0
Kuwait	0	0	0	0	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0
Saudi Arab OPEC	1,518	195	0	0	18	1,728
Other OPEC						
Brazil	318	0	0	0	0	318
Libya	0	0	0	0	0	0
Nigeria	492	10	0	0	0	502
Iran	0	0	0	0	0	0
Nigeria	944	0	340	380	0	1,664
Venezuela	818	0	340	380	0	1,538
Subtotal Other OPEC	1,771	10	340	380	0	2,491
Other						
Angola	0	383	0	0	0	383
Australia	1	0	0	0	253	254
Bahamas	203	0	0	195	728	1,126
Belize	0	0	0	0	0	0
Bolivia	312	0	40	0	0	352
Brunei	0	0	0	0	0	0
Canada	32	0	273	178	10	493
Congo	0	174	0	0	0	174
Egypt	0	0	0	0	0	0
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
India	0	0	0	0	0	0
Japan	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0
Mexico	0	0	0	0	621	621
Netherlands	0	0	0	0	0	0
Netherlands Antilles	0	0	0	0	217	217
Norway	0	0	0	148	4,542	4,690
Other	0	0	0	0	0	0
People's Republic of China	0	0	0	0	0	0
Peru	287	0	527	0	0	814
Porto Rico	0	0	0	0	0	0
Spain	0	504	0	0	0	504
Syria	0	0	0	0	0	0
Turkey	0	0	0	0	0	0
Tunisia	0	0	0	448	47	495
United Kingdom	0	0	0	0	0	0
United States	600	620	410	229	0	1,859
Yugoslavia	0	1,533	281	973	0	3,387
Zaire	0	0	0	0	0	0
Other Western Hemisphere	0	83	277	0	196	556
Other Eastern Hemisphere	742	2,027	2,334	1,260	7,121	11,484
Subtotal Other	2,147	2,107	2,334	1,260	7,121	11,369
Total Imports	5,438	2,232	3,274	1,660	10,567	23,179

(*) Less than 500 barrels.

Notes: Total may not equal sum of components due to independent rounding.
Source: See Expenditure Notes on Data Collection and Estimation.

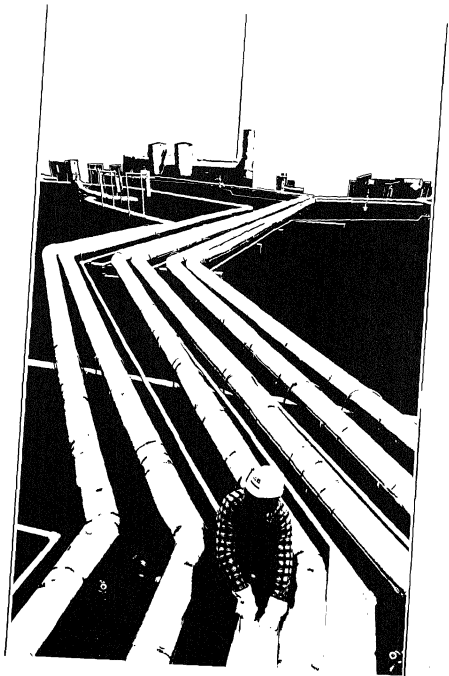
Table 32. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, December 1982
(Thousands of Barrels)

State	Residual Fuel Oil					Total
	0.00 to 0.35%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	
PAD District I	4,317	1,468	2,706	1,478	10,343	0
Connecticut	0	0	0	0	217	0
Delaware	36	0	0	0	0	0
Florida	0	0	0	0	0	0
Georgia	0	0	264	0	485	0
Illinois	0	0	0	0	31	0
Maine	0	0	0	0	1,042	0
Maryland	0	0	359	329	432	0
Massachusetts	0	0	0	0	2,815	0
New Jersey	557	110	609	50	1,418	0
New York	3,144	1,252	853	400	2,347	0
North Carolina	0	0	263	0	240	0
North Dakota	287	105	359	25	404	0
Rhode Island	0	0	0	0	51	0
South Carolina	0	0	0	0	2,815	0
Virginia	0	0	0	74	584	0
PAD District II	6	0	228	61	10	0
Michigan	6	0	228	0	0	0
Minnesota	0	0	0	0	0	0
Missouri	0	0	0	20	6	0
North Dakota	0	0	0	35	4	0
PAD District III	1,082	504	340	0	0	0
Louisiana	2	504	340	0	0	0
Texas	1,081	0	0	0	0	0
PAD District IV	0	0	0	0	0	0
Montana	0	0	0	0	0	0
PAD District V	31	261	(*)	112	214	0
California	0	0	0	0	214	0
Hawaii	5	261	(*)	112	0	0
Washington	26	0	0	0	0	0
All PAD Districts	5,438	2,332	3,274	1,660	16,567	0
Total						23,179

(*) Less than 500 barrels.

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

Sources: See Explanatory Notes on Data Collection and Estimation.



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 hydroxyl group, $\text{CH}(\text{OH})\text{-OH}$. "Alcohol" includes ethanol and methanol.

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 following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor is 42-gallon barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines as given in ASTM Specification D 910 and Military Specification MIL-G-5572.

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 coko, asphalt and wax to barrels are given in the definitions for these products.

Butane. A normally gaseous paraffinic hydrocarbon, C_4H_{10} . It is extracted from natural gas or refinery gas streams. Butane is covered by ASTM Specification D1835 and Gas Processors Association Specification for commercial butane.

- **Normal Butane**—A saturated straight-chain hydrocarbon of butane. It is a colorless paraffinic gas that boils at a temperature of 31.1°F . This classification includes mixtures of gases that contain 80 percent or more normal butane.

- **Other Butanes**—All butanes not included as normal butane or isobutane.

Butane-Propane Mixtures. Mixtures consisting exclusively of butane and propane that conform to ASTM Specification D1895 and Gas Processors Association Specification for commercial butane-propane. They are extracted from natural gas and refinery gas streams.

Butylene. An olefinic hydrocarbon, C_4H_8 , recovered from refinery processes. It is reported to the "Butane" category.

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 D 388.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through a surface separating facilities. Lease condensate is included. Drips are also included, but topped crude (residue) 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 U.S.C. 1331. Hydrocarbons such as shale oil and tar sand oil are included.

- **Foreign**—Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

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 and No. 2 heating oils, No. 1 and No. 2 diesel fuel oils, and No. 4 fuel oil.

- **No. 1 Fuel Oil**—A light distillate fuel oil intended for vaporizing pot-type burners. ASTM Specification D 396 specifies for this grade maximum distillation temperatures of 400° F. at the 10-percent 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 domestic heating for use in atomizing-type burners or for moderate capacity commercial-industrial burner units. ASTM Specification D 396 specifies for this grade temperatures at the 90-percent point between 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 given by ASTM Specification D 975:

1. **No. 1-D**—A volatile distillate fuel oil in the 400° to 550° F. boiling range for engines in service requiring frequent speed and load changes. Type C-B diesel fuel, which is used for city buses and similar operations, is included.

2. **No. 2-D**—A distillate fuel oil of lower volatility in the 540° to 640° F. boiling range for engines in industrial and heavy mobile service. Type R-R diesel fuel for railroad compression-ignition engines and Type T-T for diesel-engine trucks are included.

- **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 or residual fuel oil stocks that conforms to ASTM Specification D 396 or Federal Specification VV-F-815C; its kinematic viscosity is between 6.8 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 D 975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa, and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electric Energy (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous paraffinic hydrocarbon, C_2H_6 , extracted from natural gas and refinery gas streams. "Ethane" includes any product containing 90 percent liquid volume or more ethane.

Ethane-Propane Mixtures. Mixtures of ethane and propane in which neither component is 90 percent or more of the liquid volume. It is extracted for natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, C_2H_4 , recovered from refinery and petrochemical processes. It is reported in the "Ethane" category.

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.

Gas Well Gas. Natural gas produced from gas wells. Such gas may be either associated gas or non-associated gas.

- **Associated Gas**—Free natural gas in immediate contact, but not in solution, with crude oil in the reservoir.

- **Non-Associated Gas**—Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

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 oil shale.

Isobutane. A saturated branch-chain isomer of butane. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. This classification includes mixtures of gases that contain 80 percent liquid volume or more isobutane. It is extracted from natural gas and refinery gas streams.

Isopentane. A saturated branch-chain hydrocarbon, C_5H_{12} , obtained by fractionation of natural gasoline or isomerization of normal pentane.

Kerosene. A petroleum distillate that boils at a temperature between 300° and 550° F., that has a flash point higher than 100° F. by ASTM Method D 56, that has a gravity range from 40° to 46° API, and that has a burning point in the range of 150° to 175° F. It is a clean-burning product suitable for use as an illuminant when burned in wick lamps. Includes grades of kerosene called range oil having properties similar to No. 1 fuel oil, but with a gravity of about 43° API and having a maximum end-point of 625°F. Kerosene is used in space heaters, cook stoves, and water heaters.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7° API, a 10 percent distillation temperature of 400° F., and an end-point of 572° F. It is covered by ASTM Specification D 1655 and Military Specification MIL-T-5624L (Grade JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) by lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Lease Separator. A surface facility used for separating casinghead gas from produced crude oil as water and separating gas from that portion of associated gas and non-associated gas that liquefies at the temperature and pressure conditions of the separator.

Liquefied Petroleum Gases (LPG). Propane, propylene, butanes, butylene, ethane-propane mixtures and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Formerly called "Liquefied Gases."

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gas. Through compression and/or refrigeration they are retained in the liquid state. The reported categories are ethane and/or ethylene, propane and/or propylene, butane and/or butylene, butane-propane mixtures, and isobutane. Excludes still gases used for chemical or rubber manufacture which are reported as petrochemical feedstocks and also excludes liquefied gases ready for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstocks, other uses, or both.

Lubricants. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories reported are:

- **Bright Stock**—A refined, high viscosity lubricating oil base stock that is usually made from residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.
- **Neutral**—A distillate lubricating oil base stock with a viscosity that is usually not above 50° Saybolt Universal Seconds (SUS) at 100° F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.
- **Other**—A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Miscellaneous Products. Includes all finished products not classified elsewhere. "Miscellaneous products" include petroleum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and other finished products.

Motor Gasoline Blending Components. Finished components in the gasoline range that will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition

annginas. Specifications for motor gasoline, as given in ASTM Specification D 489 or Federal Specification VV-G-1690B, include a boiling range of 122° to 168° F. at the 10-percent point to 365° to 374° F. at the 90-percent point and a Reid vapor pressure range 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 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating.
- **Finished Unleaded Gasoline**—Contains up to 0.05 grams of lead per gallon and 0.005 grams of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating.
- **Gasohol**—A blend of alcohol and finished motor gasoline that is no more than 90 percent of finished motor gasoline (leaded or unleaded as described above) and no less than 10 percent of mere alcohol (ethanol or methanol).

Motor Gasoline (Total). Includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8° API and 20 to 90 percent distillation temperatures of 290° to 470° F., meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. This category excludes ram-jet and petroleum rocket fuels, which are included in the "Miscellaneous Products" category.

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, butane, natural gasoline, 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, ethane-propane mix, isobutane, butane, butane-propane mix, isopentane, natural gasoline, plant condensate, unfractionated stream, and other products from natural gas processing plants (i.e., products meeting the standards of 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 facility designed to recover natural gas liquids from a stream of natural gas that may or may not have been processed through lease separators or natural gas field facilities. The facility also controls the quality of natural gas to be marketed. Cyclic plants are classified as gas processing plants.

Natural Gasoline. 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 Producers Association.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing and-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.

Operable Distillation Capacity. The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and

grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within 90 days.

Other Hydrocarbons. Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal, tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum, principally for the manufacture of synthetic rubber and a variety of plastics. The categories reported are "Naphtha-less than 400° F. end-point" and "Other oils over 400° F. end-point."

- **Naphtha less than 400° F. end-point**—A naphtha with an end point of less than 400° F. and that is reported as used as a petrochemical feedstock.
- **Other oils over 400° F. end-point**—Oils with an end point over 400° F. and that are reported as used as a petrochemical feedstock.

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 5.42-gallon barrels per short ton.

- **Marketable Coke**—Those grades of coke that are produced in delayed or fluid cokers and which may be recovered as relatively pure carbon. This "green" coke may be sold or further purified by calcining.
- **Catalyst Coke**—In many catalytic operations (i.e., 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 fuel in the refinery 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, natural gasoline and isopentane, plant condensate, unfractionated stream, ethane, liquefied petroleum gases, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils over 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas plant liquids, other hydrocarbons, and alcohol.

Plant Condensate. One of the natural gas plant liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tank farms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. "Primary Stocks" excludes stocks of foreign origin that are held in bonded warehouse storage.

Propane. A normally gaseous hydrocarbon, C_3H_8 , extracted from natural gas and refinery gas streams. It is used primarily as a fuel and as a petrochemical feedstock. Propane is covered by ASTM Specification D1835, Gas Processors Association for commercial and HD-5 propane, and ASTM Specification for special duty propane.

Propylene. An olefinic hydrocarbon, C_3H_6 , recovered from refinery and petrochemical processes. It is reported in the "Propane" category.

Residual Fuel Oil. Topped crude of refinery operations. "Residual Fuel Oil" includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D 396 and Federal Specification VV-F-816C; Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2; Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Road Oil. Any heavy petroleum oil, including residual asphaltic oils, used as a dust palliative and surface treatment of roads and highways. It is generally produced in six grades; from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, and solvents. These products are refined to a specified flash point and have a boiling range of 90° to 220° F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D 484, 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 that is purchased for use by a refinery that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and refinery fuel use.

- **Petrochemical Feedstock Use**—Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.

- **Fuel Use**—All other still gas.

Strategic Petroleum Reserve (SPR). Stocks (currently, only crude oil) maintained by the Federal Government for use during periods of major supply interruption.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unfractionated Stream. Mixtures of unsegregated natural gas plant liquid components excluding those included in plant condensate. This product is extracted from natural gas.

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 a 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 reported are microcrystalline, crystalline—fully refined, and crystalline—other. The conversion factor is 280 pounds per 42-gallon 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. (D-1321)—60 maximum.
- Viscosity at 210° F. in Saybolt Universal Seconds (SUS) (D-88)—60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum.
- Oil content (D-721)—5 percent minimum.

- **Crystalline-Fully Refined Wax**—A light-colored paraffin wax having the following characteristics:

- Viscosity at 210° F. (D-88)—59.9 SUS (10.18 centistokes) maximum.
- Oil Content (D-721)—0.5 percent maximum.
- Other +20 color, Saybolt minimum.

- **Crystalline-Other Wax**—A paraffin wax having the following characteristics:

- Viscosity at 210° F. (D-88)—59.9 SUS (10.18 centistokes) maximum.
- Oil Content (D-721)—0.61 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and the surrounding waters.

Bureau of Mines Petroleum Refining Districts and PAD Districts

PAD District

Refining 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 #1—The State of West Virginia, those parts of the States of Pennsylvania and New York not included in the East Coast District.

Appalachian #2—The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

II

Indiana—Illinois—Kentucky—The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

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.

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.

III

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.

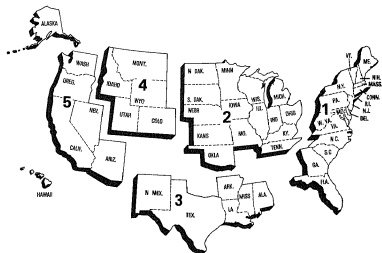
IV

Rocky Mountain—The States of Montana, Idaho, Wyoming, Utah, and Colorado.

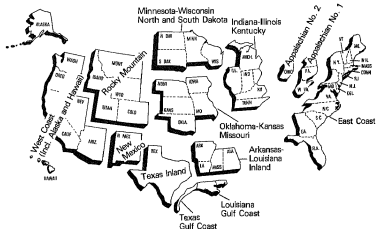
V

West Coast—The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

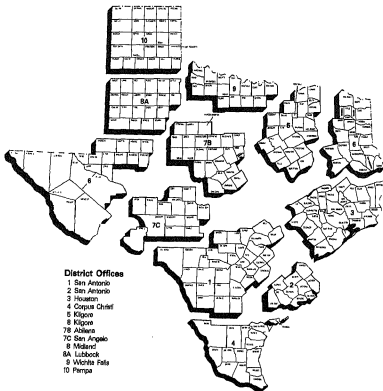
Petroleum Administration for Defense (PAD) Districts



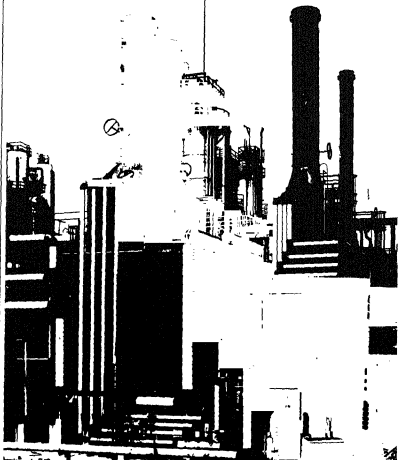
Bureau of Mines Refining Districts



District Map Oil and Gas Division Railroad Commission of Texas



Explanatory Notes



Explanatory Notes

Note 1.1 EIA-64: Natural Gas Liquids Operations Report

Background

The EIA-64, "Natural Gas Liquids Operations Report" evolved from a survey designed and conducted by the United States Geological Survey beginning in 1911. This form collects data on the production and storage of natural gas plant liquids at natural gas processing plants and fractionators.

Description of Survey

Universe

The universe includes all operators of facilities designed to: (1) extract liquid hydrocarbons from natural gas streams (natural gas processing plants); (2) separate a combined products liquid hydrocarbon stream into its component products, i.e. propane, butane, natural gasoline, etc. (fractionators); or (3) store the liquid hydrocarbon output of plants and fractionators.

The mailing list is automated. It is maintained by matching periodically with the *LP Gas Almanac* listings (including supplements) and the *Oil and Gas Journal* Processing Plant Survey listings, and by making changes reported by the respondents.

Information Collected

The data are submitted monthly by facility and include all products that the company controls through possession, regardless of ownership. The main items of information collected by the EIA-64 are shown by the example of the form presented below.

Collection Methods

Completed reports are required to be postmarked 20 days following the last day of the report month. Follow-up telephone calls are made to nonrespondents in order to collect data before publication of the aggregated data.

Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. 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 the current month's ending stocks. The value of shipments is adjusted to balance stock level, production, receipts, plant fuel use, and losses. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by a resubmission of actual data.

Response Rates

The initial response rate averages 85 percent, with a final response averaging 98 percent as a result of telephone follow-up procedures.

Data Processing

Upon receipt, the reports are reviewed for identification section omissions, duplicate submissions, and identification information changes. The data are then entered and edited. The edit program includes checks for invalid data entry codes, range checks for current-month to previous-month changes (absolute and relative), arithmetic calculation errors, line balancing errors, etc. Telephone calls are made to respondents to resolve questions.

Note 1.2 EIA-87, 88, 89 and 90: Joint Petroleum Reporting System

Background

The Joint Petroleum Reporting System (JPRS) comprises four surveys: the "Refinery Report" (EIA-87); the "Bulk Terminal Stocks Report" (EIA-88); the "Pipeline Products Report" (EIA-89); and the

1992

U.S. Department of Energy
Energy Information Administration
Mail Station, B6-086 Ford
Washington, D.C. 20585

Manual Gas Liquids Operations Report

This Report is Mandatory Under Public Law 90-235. Failure to Comply May Result in Criminal Penalties, Civil Penalties and Other Sanctions as Provided in 18 U.S.C. § 1024.

Second Time

10

[illegible]

1

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Pin Code of Plant Location

© 2000 Blackwell Science Ltd *Journal of Internal Medicine* 247: 101–106

2

Form Approved
GSA GEN. REG. NO. 2700E-01008

Section 1. Natural Gas Processing Plant and Fractionator Operations (Bareilly of 42 Gallons)

Product Code	Products	Stocks Opening Inventory	Receipts During Month	Inputs During Month	Production During Month	Shipments To					Plant Use Unit	Losses	Stocks End of Month
						Freight Facility	Storage Facility	Refinery	Chemical Plant	Other			
110	Gasoline	30	30	30	30	30	30	30	30	30	30	30	30
221	Gasoline	30	30	30	30	30	30	30	30	30	30	30	30
341	Gasoline	30	30	30	30	30	30	30	30	30	30	30	30
353	Isobutane	30	30	30	30	30	30	30	30	30	30	30	30
395	Normal Butane	30	30	30	30	30	30	30	30	30	30	30	30
396	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
397	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
400	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
401	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
402	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
403	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
404	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
405	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
406	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
407	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
408	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
409	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
410	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
411	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
412	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
413	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
414	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
415	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
416	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
417	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
418	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
419	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
420	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
421	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
422	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
423	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
424	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
425	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
426	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
427	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
428	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
429	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
430	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
431	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
432	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
433	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
434	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
435	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
436	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
437	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
438	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
439	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
440	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
441	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
442	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
443	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
444	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
445	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
446	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
447	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
448	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
449	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
450	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
451	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
452	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
453	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
454	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
455	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
456	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
457	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
458	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
459	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
460	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
461	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
462	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
463	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
464	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
465	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
466	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
467	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
468	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
469	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
470	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
471	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
472	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
473	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
474	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
475	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
476	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
477	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
478	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
479	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
480	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
481	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
482	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
483	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
484	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
485	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
486	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
487	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
488	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
489	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
490	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
491	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
492	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
493	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
494	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
495	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
496	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
497	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
498	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
499	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
500	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
501	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
502	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
503	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
504	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
505	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
506	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
507	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
508	Crude Fueloil	30	30	30	30	30	30	30	30	30	30	30	30
509	Crude Fueloil	30											

"Crude Oil Stocks Report" (EIA-90). This group of forms collects data on petroleum refinery operations and on storage of crude oil and petroleum products. The origins of JPRS lie in the voluntary petroleum reporting systems instituted by the Bureau of Mines (BOM) soon after it was established as a part of the Department of the Interior in May 1910.

Description of Survey

Universe

The respondent universe of each JPRS survey is defined as follows:

EIA-87: All petroleum refineries and plants producing finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Hawaiian Foreign Trade Zone, and Guam.

EIA-88: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline regardless of ownership of the material.

EIA-89: All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia.

EIA-90: Crude oil pipeline companies (gathering and trunk pipeline companies), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water (in excess of 1,000 barrels), regardless of ownership in the 50 States and the District of Columbia.

The list of respondents is kept current by checking for new respondents in the *Oil and Gas Journal* weekly magazine; newspaper articles; the Office of Resource Applications publication "Trends in Refinery Capacity & Utilization;" the Office of Refinery Operations (ERA) list of U.S. Refiners; and the annual survey EIA-177 "Capacity of Petroleum Refineries."

Information Collected

The main items of information collected by EIA-87, are shown by the example presented below. The EIA-88 and EIA-89 collect data on petroleum product stocks. The EIA-90 collects data on crude oil stocks and crude oil used directly as fuel.

Collection Methods

The data for the JPRS surveys are collected on a monthly basis. Completed forms are required to be postmarked by the 20th day following the report month. Telephone follow-up calls are made to nonrespondents in order to collect data before publication deadline. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For these companies, the 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 the current month's ending stocks. The value of shipments is adjusted to balance stock level, production receipts, and losses. In the event that previous month's data were estimated, the respondent is contacted and requested to submit estimates if necessary, to be followed by a resubmission of actual data.

Response Rates

As of the filing deadline, the response rate of the JPRS respondents is over 90 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Thirty calendar days after the report month, data for companies that still fail to file the form are estimated based on prior month's data. Names of companies that fail to file for two consecutive months are forwarded to DOE for further noncompliance action. Final response rate is 100 percent.

Note 1.3 EIA-161, 162, 163, 164 and 165: Weekly Petroleum Reporting System

Background

The Weekly Petroleum Reporting System (WPRS) comprises five surveys: the "Refinery Report" (EIA-161); the "Bulk Terminal Stocks Report" (EIA-162); the "Pipeline Product Stock Report" (EIA-163); the "Crude Oil Stocks Report" (EIA-164); and the "Imports Report" (EIA-165).

The EIA weekly reporting system was designed to collect data similar to those collected under the monthly Joint Petroleum Reporting System (JPRS) (See Note 1.2). In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-161 through EIA-164, companies report data on a custody basis. On the Form EIA-165, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data from the JPRS are used to estimate the published weekly totals.

Description of Survey

Universe

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly in either the JPRS system or the ERA-60 system (for imports). All sampled companies report data only for facilities in the 50 States and the District of Columbia.

The sampling frame for each weekly survey is defined as follows:

EIA-161: Uses the EIA-87 universe, which includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline.

EIA-162: Uses the EIA-88 universe, which includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline.

EIA-163: Based on the EIA-89 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that only transport natural gas liquids are not included in the EIA-163 frame. Only those pipeline companies which transport products covered in the weekly survey are included.

EIA-164: Uses the EIA-90 universe, which consists of all trunk pipeline companies in the United States and its territories which transport crude oil, all refining companies, all crude oil producers, all terminal operators, and all storers of 1,000 barrels or more of crude oil.

EIA-165: Uses the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico.

Sampling

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 some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for the previous time period.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

Formula and Calculations

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data.

First, the current week's data for a given product reported by companies in that region are summed. (Call this weekly sum, W_i) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum, M_i). Finally, let M_i be the sum of the most recent month's data for the product as reported by all companies. Then, the current week's ratio estimate for that product for all companies is given by.

$$W_i = \frac{M_i}{M_i} \cdot W_i$$

This procedure is used directly to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Under such conditions, the ratio method is known to result in large errors. Hence, a number of other procedures for estimating weekly imports were considered. The average ratio method was selected for estimating imports because it produces estimates that were close to benchmark values computed from monthly data. Estimates are obtained using the ratio method, but with each company in turn omitted from the sample. These estimates are then averaged to obtain the average ratio estimate.

Imputing Missing Data

The ratio method of estimation automatically imputes for nonresponse. Data from companies that do not respond are excluded from both the weekly and the monthly totals for the sampled companies.

Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-161; 75 percent for the EIA-162; 95 percent for the EIA-163; 80 percent for the EIA-164; and greater than 95 percent for the EIA-165. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

Note 1.4 EIA-170: Tanker and Barge Shipments of Crude Oil and Petroleum Products Between Districts

Background

The EIA-170 survey collects data for calculation of monthly petroleum supply and disposition figures on U.S. and PAD District levels.

Instrument and Design

This form is designed to collect data on total movements by tanker and barge of crude oil and petroleum products between PAD Districts or between PAD Districts and the Panama Canal, by shipping State and receiving State.

Universe

The respondent universe of the EIA-170 consists of all known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are currently about 60 respondents.

Collection Methods

Survey data are collected by mail every month. The filing deadline is the 20th calendar day of the month following the report period. The response rate as of the filing deadline is about 98 percent. Late respondents are contacted by telephone. All responses are processed each month before release of the data for publication.

Note 1.5 ERA-60: Reports of Oil Imports into the United States and Puerto Rico

Background

The "Report of Oil Imports into the United States and Puerto Rico" (ERA-60) survey was designed by the Economic Regulatory Administration (ERA) of the Department of Energy to collect data on port of entry, country of origin, destination, and quantity of imported crude oil and petroleum products, as well as sulfur content and API gravity. All licensed importers and exporters of record are required to report. The "Shipments of Refined Products from Puerto Rico to the United States" (P-133-M-O) survey was designed to collect data on imports to the United States that are not covered by the ERA-60.

Universe

The monthly submission of Form ERA-60 and P-133-M-O is required by all licensed importers and exporters of record into the United States and Puerto Rico. The respondent universe consisted of approximately 750 firms as of June 30, 1981. The respondent universe for these surveys is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

Collection Methods

The survey data are collected by mail each month. It is mandatory for each respondent to file the ERA-60/P-133-M-O by the 15th working day of the month following the reporting period. Resubmissions are received frequently and are processed when received.

Response Rates

In December 1980, the survey had a response rate of 92 percent by the filing deadline. The universe was 40 at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard followup of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. Response rate is generally 98-99% by the time the data are first published. Revised publications are not generated as standard operating procedure. The ERA-60 file is never closed; submissions are constantly received and processed.

Note 1.6 Census Import (IM-145) and Export (EM-522 and EM-594) Tabulations

The foreign trade statistics program, conducted by the Bureau of the Census, involves compilation and dissemination of a large body of data relating to the imports and exports of the United States.

Import Statistics

Universe

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise shipped in transit through the United States, when documented with Customs as an intransit movement.
2. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; shipments between any of these outlying areas; and imports into U.S. possessions from foreign countries.
3. U.S. merchandise returned by U.S. Armed Forces for their own use.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501- 7506).

Imported petroleum is reported as "Imports for Consumption." Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics

Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; between any of these outlying areas; and shipments from U.S. Possessions to foreign countries.
2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
3. 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 Bureau of the Census primarily from copies Shipper's Export Declarations. Shipper's Export Declarations are required to be filed with Customs officials, except when qualified exporters have been authorized to submit data in the form of magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations directly to the Bureau of the Census.

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2 Estimation

The geographic coverage of all estimates is the 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Note 2.1 Supply

The components of petroleum supply are field production, refinery production, imports, stock withdrawal or addition, crude oil used directly, and losses.

Field Production is the sum of crude oil (including lease condensate) production, natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. Reports of crude oil production from each of the 31 producing States are not received until several months after the other components of petroleum supply described in Explanatory Note 2.1 are available for publication. For an explanation of the crude oil estimation procedure used until the State reports are complete, see Explanatory Note 2.2.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operation 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. For survey description and other detail, see Explanatory Note 1.1.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operations 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. For survey description and other detail, see Explanatory Note 1.1.

Refinery Production of LRGs, ethane, and finished petroleum products is reported monthly on survey Form EIA-87, "Refinery Report." Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under 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 is also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey descriptions and other detail. It should also be noted that refineries do not report production of crude oil, natural gasoline, isopentane, unfractionated stream, plant condensate, or other hydrocarbons and alcohol.

Imports of crude oil and petroleum products are reported monthly on Form ERA-60, "Report of Oil Imports into the United States and Puerto Rico," and Form P-133-M-O, "Shipments of Refined Products (including unfinished oils) from Puerto Rico to the United States." In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501 and 7506. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where Census data show a much higher level of imports than Energy Information Administration data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and because LPGs are not licensed products. Therefore, respondents that only import LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade and for military offshore use. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Imports are also reported weekly on survey Form EIA-165, "Imports Report." See Explanatory Notes 1.3, 1.5, and 1.6 for survey descriptions and other detail.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (-) would represent a buildup of stocks and reduce petroleum supplies distributed for domestic consumption. For survey forms used to make stock withdrawal or addition calculations see Explanatory Note 2.4.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports and stock withdrawal or addition, less crude used directly and losses. Crude oil disposition is the sum of exports and refinery input.

Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A negative 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 would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used. This calculation is performed for crude oil to ensure that product supplied for crude oil is always zero.

Crude Oil Used Directly and Losses is the sum of crude oil losses at refineries, crude oil burned at refineries, and crude oil burned on leases. Crude oil losses and consumption at refineries are reported on Form EIA-87, "Refinery Report." Crude oil burned on leases is reported on Form EIA-90, "Crude Oil Stocks Report." Crude oil burned on leases is divided into two categories: crude burned as residual fuel oil and crude burned as distillate fuel oil. Crude burned on leases appears as a negative supply to crude oil (a reduction in crude oil supplies) and as a positive supply to residua and distillate fuel oil (an increase to these supplies).

Note 2.2: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the individual State conservation agencies, which collect crude oil production values for tax purposes. In addition, the U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of six State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports from the State conservation agencies and the U.S. Geological Survey. The six States that do not report monthly values are Indiana, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 3 to 4 months between the end of the reporting month and the time when the actual values are available for this publication. In order to provide more timely crude oil production estimates, the Department of Energy has established a series of statistical models that forecast the volume of crude oil production based on the historical production patterns. The models use Auto Regressive Integrated Moving Average (ARIMA) to analyze series of monthly crude oil production values collected over several years.

In order to provide detailed crude oil production information on both the PAD District level and for the major producing States, the total United States crude oil production volume was separated into nine distinct groupings. The nine different time series are the monthly reported crude oil production volumes for: (1) all the States in PAD District 1; (2) all the states in PAD District 2; (3) Texas; (4) Louisiana; (5) the States in PAD District 3 excluding Texas and Louisiana; (6) all the States in PAD District 4; (7) Alaska; (8) California; and (9) the States in PAD District 5 excluding Alaska and California. Monthly data collected beginning in January 1978 are used for each of these time series.

A separate ARIMA model is identified for each time series. New model parameters are estimated monthly for each of these nine updated time series. Then, these ARIMA models are used to forecast crude oil production volumes for the month of interest. These values are then aggregated into PAD District and national totals. The forecasts made during 1981 had an average error of less than 0.6 percent compared to the monthly crude oil production volumes eventually reported by the States.

Note 2.3 Disposition

The components of petroleum disposition are refinery input, exports, and products supplied for domestic consumption.

Refinery inputs of crude oil, NGPL and other liquids are reported monthly on survey Form EIA-87, "Refinery Report." Published inputs of unfinished oils, and motor and aviation gasoline blending components, equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production. Refinery inputs are also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey description and other details.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM522 and EM594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-87.

Product supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, plus crude oil used directly and losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply. Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative when total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) misreporting or delayed reporting of data, and (3) for calculations on a PAD District basis, incomplete coverage of interdistrict movements data compiled to calculate net receipts.

Note 2.4 Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-87, "Refinery Report," and Form EIA-90, "Crude Oil Stocks Report." Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form 161, "Refinery Report," and Form EIA-164, "Crude Oil Stocks Report." Primary stocks of petroleum products are summed from data reported on the Form EIA-64, "Natural Gas Liquids Operations Report," Form EIA-87, "Refinery Report," Form EIA-88, "Bulk Terminal Stocks Report," and Form EIA-89, "Pipeline Products Stocks Report." Primary stocks of petroleum products do not include secondary stocks held by dealers and jobbers, or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-161, "Refinery Report," Form EIA-162, "Bulk Terminal Stocks Report," and Form EIA-163, "Pipeline Products Stocks Report." For survey descriptions and other details see Explanatory Notes 1.1, 1.2, and 1.3.

Note 2.5 Average Stock Levels

The graphs displaying monthly stock levels of petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products provide the user with recent data as well as a summary of data from the most recent 3 year period from January through December or from July through June. This summary takes the form of an "average range" that includes seasonal variation determined from a longer time period. The average range represents the historical pattern; it is not a forecast.

These curves are updated every 6 months effective January 1 or July 1 by basing the "average ranges" on a more recent time period. At that time, each 3-year data series will be adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors were estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors were 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 stock levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors were very small relative to crude oil stock levels. Therefore, the seasonal factors for crude oil stock levels were set to zero. The seasonal factors for total petroleum (crude and products), distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products were derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors were based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973 and 1974 appeared to be different from those in recent years. It was therefore assumed that the seasonal patterns in 1973, 1974, and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for total petroleum (crude and products), crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3 year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the "average range" is twice this standard error.

The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

Note 2.6 Movements

Movements of crude oil between PAD Districts are reported on Form EIA-170, "Tanker and Barge Report." Petroleum product movements are reported on Forms EIA-170 and EIA-89, "Pipeline Products Report." Net receipts are calculated by summing total movements into and total movements from each PAD District by pipelines, tankers, and barges, and subtracting for the difference. Movements of crude oil by pipeline are not reported. For survey descriptions and other detail, see Explanatory Notes 1.2 and 1.4.

Note 2.7 Preliminary Monthly Statistics

Data from the Weekly Petroleum Reporting System (Forms EIA-161, 162, 163, 164 and 165) are used to estimate the most recent monthly values for the historical statistics. Since some of the weekly reporting periods overlap 2 adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To calculate monthly estimates of crude oil and petroleum product imports, crude oil input to refineries, and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel and residual fuel) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the 2 weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of earlier of the 2 weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 2.2.

Note 3 Accuracy of Petroleum Supply Data

Early in 1981, the Energy Information Administration completed an assessment of the accuracy of principal petroleum supply data series. This assessment concentrated on two methods of analysis:

- Comparisons between EIA's final annual estimates published in the *Petroleum Statement Annual (PSA)* and annual estimates from independent sources.

- Comparisons between EIA's final monthly estimates published in the *PSA* and EIA's earlier estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* (predecessor of the *Monthly Petroleum Statement*).

Selected excerpts from these comparisons are presented below.

Comparisons of Annual Estimates

All of the systems that provide data for the *Petroleum Supply Monthly*, except for the weekly systems, try to collect data from the entire universe of their potential respondents. They do not sample, and have no sampling errors. Inaccuracies in the data still occur because of problems such as incomplete lists of respondents, errors in the responses, and conceptual errors in the design of the data systems. Such inaccuracies are hard to identify and even harder to quantify. Some understanding of the overall accuracy of the estimates can be achieved by comparing estimates derived from independent sources of data, as shown in the following tables. Close agreements among annual estimates from several independent sources support the conclusion that the estimates are accurate, and accuracy in the annual estimates implies accuracy in the monthly estimates that comprise the annual estimates.

Crude Oil Production

Comparisons among independent estimates of annual crude oil and lease condensate production lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent.

Crude Oil Imports

Comparisons among independent estimates of annual crude oil imports lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent. This conclusion is supported by a study of EIA and Customs/Census import data performed for EIA.³

Motor Gasoline Supplied

Comparisons among independent estimates of the annual volume of motor gasoline supplied for domestic use show that differences in the estimates grew between 1977 and 1979. By 1979, the EIA estimate of sales by refiners and the Environmental Protection Agency's estimate of production had grown about 6-7 percent larger than the comparable *PSA*, Lundberg, and American Petroleum Institute (API) estimates. Research conducted by EIA in 1979 and 1980⁴ confirmed that the lower

¹An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292, June 1981.

²Maxima Corporation, *Petroleum Imports Reporting Systems, Preliminary Draft*, (Silver Spring, Maryland: February 1980). Prepared for the Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, Washington, D.C.

³Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *An Evaluation of Published EIA Gasoline Supply Estimates* (Washington, D.C.: April 1980).

estimates were inaccurate, and identified changes in the petroleum industry that had an adverse effect on the PSA estimate. During 1980, EIA developed and tested improved procedures for collecting petroleum supply data, and implemented them in January 1981. (See Explanatory Note 4.)

Distillate Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of distillate fuel oil supplied for domestic use lead to the conclusion that the PSA estimates are probably accurate to within 1 to 2 percent.

Residual Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of residual fuel oil supplied for domestic use seem to show sizable and consistent differences between the EIA estimates of sales by refiners and the PSA and API estimates. When imports of residual fuel oil by nonrefiners are added to the refiner sales, however, the difference between refiner sales and the PSA estimates are narrowed to within 1 percent. The comparisons therefore lead to the conclusion that the PSA estimates are probably accurate to within 1 to 2 percent.

Comparison of Estimates of the Volume of Crude Oil and Lease Condensate Production, 1977-1979

	Estimated Volume of Production in Millions of 42-U.S. Gallon Barrels*			Comparative Estimate as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from Petroleum Statement Annual ^b	3,121	3,178	3,009	///	///	///
Comparative Estimates						
American Petroleum Institute Estimate from API Monthly Statistical Report ^c	3,130	3,214	3,021	100.3%	101.1%	100.4%
Census Estimate from the Annual Survey of Oil and Gas ^d	—	3,148	3,016	—	99.1%	100.2%
Oil and Gas Journal Estimates ^e of Total Production derived from Monthly Data	3,168	3,165	3,005	101.5%	99.6%	99.9%
EIA Estimate from Annual Survey of Oil and Gas Reserves (EIA-23) ^f	3,102	3,144	3,001	99.4%	98.9%	99.7%

/// = Not applicable

— = Not available

*Volumes are rounded to the nearest million barrels.

^bFrom Table 6 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

^cFrom issues of the American Petroleum Institute's *Monthly Statistical Report*. The annual values were obtained by summing the monthly values for each of the twelve-month periods.

^dFrom Table 1, p.2 of the Bureau of Census' *Annual Survey of Oil and Gas*, 1978.

^eFrom issues of the *Oil and Gas Journal*. Monthly estimates are in thousands of barrels per day. They are converted to millions of barrels by dividing by 1,000 and multiplying by the number of days in the reporting period.

^fFrom EIA's *U.S. Crude Oil and Natural Gas Reserves 1979 Annual Report* (Table 19, p. 23), *1978 Annual Report* (Table 16, p. 20), and *1977 Annual Report* (Table 22, p.30).

Geographic coverage: the 50 United States and District of Columbia with adjacent areas of the Outer Continental shelf.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0250.

Comparison of Estimates of the Volume of Crude Oil Imports, 1977-1979

	Volume of Millions of 42-U.S. Gallon Barrels*			Comparative Estimates as a Percent of the Primary Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate of Receipts at Ports of Entry (ERA-60) from Petroleum Statement, Annual ^b	2,380	2,320	2,414	///	///	///
Comparative Estimates						
American Petroleum Institute Estimate of Receipts as Reported by Refiners ^c	2,346	2,323	2,360	98.6%	100.1%	97.8%
Customs/Census Estimate of Receipts at Ports of Entry (Customs Forms 7501 and 7502) ^d	2,415	2,338	2,431	101.5%	100.8%	100.7%
EIA Estimate of Inputs of Foreign Crude at Refineries (ETA-87) ^e	2,364	2,334	2,431	99.3%	100.6%	100.7%

/// = Not applicable

*Volumes are rounded to the nearest million barrels.

^bFrom Table 1 in EIA's *Petroleum Statement Annual* 1977, 1978, 1979. This table also includes imports for the Strategic Petroleum Reserve (SPR) which were 7.5 million in 1977, 68.8 million in 1978, and 24.4 million in 1979.

^cEstimate equals the sum of the annual estimate of imports derived from API's *Monthly Statistics Report* (which excludes imports for SPR), and the EIA estimates for imports for the SPR which are listed in footnote b above. The annual estimates from API data are equal to the sum of the API monthly estimates weighted by the number of days in each month.

^dData on imports to Puerto Rico which are included in the source for these estimates have been excluded from these estimates in keeping with the geographic coverage of the table. Data are from computer printouts of the Bureau of Census Report 1M-245-X dated April 8, 1980 (1977 and 1978 data) and December 19, 1980 (1979 data).

^eEstimate equals refinery inputs of foreign crude plus (minus) stock increases (decreases) of foreign crude. The data for the computation are published in EIA's *Petroleum Statement, Annuals*. The stock changes (all increases) are derived from data on stocks of crude oil at refineries, bulk terminals, and pipelines as reported on Form EIA-86, plus the increase in the SPR. This estimate excludes crude oil imported and not used as refinery input.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

Comparison of Estimates of the Volume of Motor Gasoline Supplied for Domestic Use, 1977-1979

	Volume in Millions of 42-U.S. Gallon Barrels ^a			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement, Annual</i> ^b	2,573	2,711	2,625	///	///	///
Comparative Estimates						
EIA Estimate of Sales by Refiners (P-306) ^c	2,708	2,782	2,671	106.2%	106.0%	101.6%
Environmental Protection Agency Estimate derived from Production Data ^d	2,766	2,851	2,706	107.5%	105.2%	103.1%
Lundberg Surveys, Inc. Estimate of U.S. Motor Gasoline Sales ^e	2,631	2,746	2,656	102.3%	101.3%	101.2%
American Petroleum Institute Estimate of Deliveries ^f	2,679	2,697	2,612	100.2%	98.5%	98.5%

/// = Not applicable

^aVolumes are rounded to the nearest million 42-U.S. gallon barrels.

^bDerived from Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

^cDerived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products* 1977, 1978, 1979.

^dThe estimate shown is derived by substituting EIA Domestic Production values with values of domestic production tabulated from the Environmental Protection Agency Eq. Form 3520-2, "Lead Additive Report for Refineries." The EPA production estimates are 2,694 million barrels in 1977, 2,757 in 1978, and 2,648 in 1979 as compared from a summary sheet provided by Mr. Bob Summerhayes of EPA.

^eFrom the mid-June issues of the "National Petroleum News," 1979 and 1980.

^fAPI publishes monthly estimates in thousands of barrels per month of the volume of motor gasoline delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of motor gasoline multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

Comparison of Estimates of the Volume of Distillate Fuel Oil (Including Kerosene) Supplied for Domestic Use, 1977-1979

	Volume in Millions of 42-U.S. Gallon Barrels ^a			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement Annual</i> ^b	1,269	1,307	1,275	///	///	///
Comparative Estimates						
EIA Estimate of Sales by Refiners (P-306) ^c	1,282	1,275	1,242	101.0%	97.6%	97.4%
American Petroleum Institute Estimate of Deliveries ^d	1,291	1,300	1,277	101.7%	99.5%	100.2%

/// = Not applicable

^aVolumes are rounded to the nearest million 42-U.S. gallon barrels.

^bDerived from Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

^cDerived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

^dAPI publishes monthly estimates in thousands of barrels per month of the volume of distillate and kerosene delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of distillate and kerosene multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

Comparison of Estimates of the Volume of Residual Fuel Oil Supplied for Domestic Use, 1977-1979.

	Volume in Millions of 42-U.S. Gallon Barrels ^a			Volume Supplied as a Percent of the PSA Estimates		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement, Annual</i> ^b	1,024	1,085	1,109	///	///	///
Comparative Estimates						
EIA Estimate of Sales by Refiners (P-306) ^c	796	832	847	80.8%	79.6%	80.1%
American Petroleum Institute Estimate of Deliveries ^d	1,044	1,101	1,114	102.0%	100.5%	100.4%

/// = Not Applicable

^aVolumes are rounded to the nearest million 42-U.S. gallon barrels.

^bDerived From Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979. Refinery fuel use, subtracted from the figures in the source referenced below, has been reinstated in those estimates.

^cDerived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

^dAPI publishes monthly estimates in thousands of barrels per month of the volume of residual fuel oil delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of residual fuel oil multiplied by the number of days per month.

Geographic Coverage: the 50 United States and the District of Columbia.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

Comparisons of Monthly Estimates Over Time

Inaccuracies in petroleum data resulting from incomplete or delayed reports from respondents and from data processing errors are usually eliminated from the final PSA estimates. Such inaccuracies can still have important effects on the monthly estimates published in the *Petroleum Supply Monthly* and its predecessors. The following tables compare the initial monthly estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* with the final monthly estimates published in the PSA. During 1977-1979, the *Monthly Petroleum Statistics Report* was published about 60 days after the end of the reporting month, and the *Petroleum Statement, Monthly* was published about 120-150 days after the end of the reporting month. The tables show that, both in terms of bias and in terms of standard deviation, the later estimates are consistently more accurate than the earlier estimates. In spite of this, the earlier estimates may have been more valuable to users of energy information because of the large difference in timeliness.

For purposes of comparison, the *Petroleum Supply Monthly* is scheduled to be published on about the same time lag as the *Monthly Petroleum Statistics Report*. Caution should be exercised, however, in drawing conclusions from this similarity. The *Petroleum Supply Monthly* uses improved data processing procedures developed and successfully implemented during 1981. In addition, since 1979, EIA has greatly improved the accuracy of its 60-day crude oil production estimates and is making progress in improving the accuracy of its 60-day import estimates.

Initial Monthly Estimates of Production, Stocks, and Imports of Crude Oil As A Percent of EIA's Final Published Estimates *
January 1977 - December 1979

	Production During Month		Primary Stocks At End of Month		Imports During Month	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> ^b	# 98.7%	1.6%	# 98.8%	1.4%	# 95.4%	2.4%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> ^c	# 99.6%	0.6%	100.0%	0.1%	# 98.4%	1.3%

Initial Monthly Estimates of Products Supplied for Domestic Use As A Percent of EIA's Final Published Estimates *
January 1977 - December 1979

	Motor Gasoline		Distillate Fuel Oil		Residual Fuel Oil	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> ^b	99.9%	1.3%	99.9%	2.3%	# 97.9%	2.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> ^c	100.0%	0.8%	99.7%	0.5%	99.4%	1.2%

Initial Monthly Estimates of End-of-Month Primary Stocks As a Percent of EIA's Final Published Estimates *
January 1977 - December 1979

	Motor Gasoline		Distillate Fuel Oil		Residual Fuel Oil	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> ^b	99.7%	0.8%	99.7%	1.1%	100.1%	0.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> ^c	99.9%	0.2%	100.0%	0.1%	100.1%	0.5%

Represents a difference from 100% found to be statistically significant at the 95% level of confidence ($\alpha = .05$).

^aFinal monthly estimates are from the "Petroleum Statement, Annual" for 1977, 1978 and 1979. The mean percent is calculated as follows: each preliminary estimate is first expressed as a percent of EIA's final published estimate, these are then summed and the sum is divided by the number of estimates. The standard deviation is the square root of the quantity computed by summing the squared deviation of the percents from the mean percent and then dividing by the number of percents.

^bBased on 36 initial estimates appearing in issues dated January 1977 - December 1979.

^cBased on 36 initial estimates appearing in issues dated January 1977 - December 1979.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

Note 4 Changes in Petroleum Industry Reporting

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 in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

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 throughout 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. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are 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). The following table 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. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.¹

¹Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C.: December, 1981).

**Finished Motor Gasoline Product Supplied on Old and New Basis
(Thousand Barrels per Day)**

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA ¹	EIA Reported	API Recast	EIA Recast	FHWA ¹
Jan	6,830	7,230	7,084- 7,246	6,984	6,323	6,789	6,630- 6,791	6,672
Feb	7,254	7,496	7,389- 7,568	7,538	6,596	6,983	6,831- 7,003	6,880
Mar	7,229	7,414	7,301- 7,468	7,316	6,406	6,763	6,607- 6,768	6,713
Apr	7,056	7,300	7,187- 7,363	7,375	6,800	7,014	6,886- 7,062	6,961
May	7,213	7,429	7,313- 7,475	7,428	6,729	6,954	6,823- 6,984	7,044
Jun	7,191	7,483	7,350- 7,516	7,441	6,667	6,966	6,824- 6,991	7,049
Jul	6,902	7,241	7,105- 7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426- 7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016- 7,262	7,232	6,510	6,692	6,962	6,686
Nov	6,791	7,068	6,956- 7,122	7,142	6,234	6,507	6,516	6,961
Dec	6,730	7,106	6,966- 7,127	7,064	6,632	6,948	6,936	6,993
Average	7,034	7,302	7,183- 7,347	7,309	6,679	6,882	6,806- 6,889	6,925

¹FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

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 oil produced by a refinery is 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, 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. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. 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.

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,546	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,626
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,001
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	-48	2,599	1,627	1,602	-25	2,684
Oct.	3,251	3,217	-34	3,085	1,629	1,612	-17	2,523
Nov.	3,239	3,200	-39	3,208	1,736	1,716	-20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

1980

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,598	1,509	1,579	70	2,395
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,268	1,444	1,506	62	2,343
Sep.	2,586	2,726	140	2,627	1,495	1,516	21	2,330
Oct.	2,589	2,660	71	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,752
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,552

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils is now reported as part of the reclassified products (line 39) in the U.S. Petroleum Balance (Table 1). Imbalances between the supply and disposition of gasoline blending components comprise the remainder of the reclassified in Table 1. These imbalances are reported as negative product supplied in the Other Liquids section of the Table of Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 5 Notes on Tables

5.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Plant Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Petroleum Products Exports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Exports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousands of barrels in Table 2.

5.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousands of barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousands of barrels in Table 2.

- Total Imports appear in Table 4.

5.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending Stocks appear in thousands of barrels in Table 2.

5.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Crude Used Directly, Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousands of barrels in Table 2.

5.5 Liquefied Petroleum Gases and Ethane statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousands of barrels in Table 2.

5.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.
- Ending stocks are aggregated from ending stocks in thousands of barrels in Table 2.

Note 5.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3) of Table 1: Crude oil (including lease condensate) production for "Alaska," "Lower 48 States," and "Total U.S." are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 2.2), and taking the difference to equal production in the lower 48 states.
- Line (6) of Table 1: SPR imports are reported on Survey Form ERA-60.
- Line (12) of Table 1: "Total Other Sources" equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil plus crude used as fuel and losses in Table 2.
- Line (14) of Table 1: Natural gas plant liquids (NGPL) "Production" equals field production of natural gas plant liquids (NGPL) plus field production of finished petroleum products in Table 2.
- Line (15) of Table 1: NGPL "Imports" equals the sum of the imports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.
- Line (16) of Table 1: NGPL "Stock Withdrawal (+) or Addition (-)" is equal to the sum of stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.
- Line (17) of Table 1 equals the sum of lines (14), (15), and (16) of Table 1.
- Line (18) of Table 1: unfinished oils and gasoline blending components "Stock Withdrawal (+) or Addition (-)" equals stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.
- Line (20) of Table 1: "Other Hydrocarbons and Alcohol New Supply" equals the field production of same in Table 2.
- Line (21) on Table 1: "Refinery Processing Gain" is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (22) on Table 1: "Crude Used Directly" equals the sum of crude oil used directly as distillate and residual fuel oils in Table 2.
- Line (23) of Table 1: "Total Other Liquids" equals the sum of lines (18) through (22) of Table 1.
- Line (24) of Table 1: "Total Production of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or

addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils in Table 2.

- Line (25) of Table 1: "Gross Imports of Refined Products" equals imports of LPG and ethane plus imports of finished petroleum products in Table 2.

- Line (26) of Table 1: "Exports of Refined Products" equals exports of LPG and ethane plus exports of finished petroleum products in Table 2.

- Line (27) of Table 1: "Net Imports of Refined Products" equals the difference between lines (25) and (26) of Table (1).

- Line (28) of Table 1: "Total New Supply of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils; plus imports of LPG and ethane and finished petroleum products; minus exports of LPG and ethane and finished petroleum products in Table 2.

- Line (29) of Table 1: "Refined Products Stocks Withdrawal (+) or Addition (-)" equals the sum of stock withdrawal (+) or addition (-) for LPG and ethane, and finished petroleum products in Table 2.

- Line (30) of Table 1: "Total Petroleum Products Supplied for Domestic Use" equals total products supplied in Table 2.

- Lines (31) through (37) of Table 1 equal the respective products supplied in Table 2.

- Line (38) of Table 1: "Other Products Supplied" equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock uses, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, and miscellaneous products supplied in Table 2.

- Line (39) of Table 1: "Total Reclassified" is a balancing item equal to the sum of unfinished oils, motor gasoline blending components, and aviation gasoline blending components products supplied in Table 2.

- Line (40) of Table 1: "Total Product Supplied" is equal to total products supplied in Table 2.

- The sum of lines (41) and (42) of Table 1, stocks of "Crude Oil and Lease Condensate (Excluding SPR)" and stocks held by the "Strategic Petroleum Reserve," equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-90.

- Line (46) of Table 1, stocks of "Refined Products," equals the sum of LPG and ethane and finished petroleum product stocks in Table 2.

SEND ORDER FORM TO: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402

☐ Check

☐ Money order, or charge to my Deposit Account No.

-

Order No. _____



Total charges \$ _____ Fill in the boxes below

[illegible]

Credit

Card No. _____

Expiration Date
Month/Year

1015

☐ **When out**

PLEASE PRINT OR TYPE

NAME AND ADDRESS

NAME - FIRST, LAST

COMPANY NAME OR ADDITIONAL ADDRESS LINE

STREET ADDRESS

city

ICR COUNTRY

PRINT OR TYPE TITLES OF ITEMS YOU WISH TO RECEIVE ON A SUBSCRIPTION BASIS:

—

[illegible]

FOR OFFICE USE ONLY	QUANTITY	CHARGES
		ENCLOSED
		TO BE MAILED
		SUBSCRIPTIONS
		POSTAGE
		FOREIGN HANDLING
		MINORS
		OTHER
		UPNS
		DISCOUNT
		REFUND

KEEP UP IN A CHANGING WORLD

Take advantage of the wealth of knowledge available from your Government. The U.S. Government Printing Office has just produced a new catalog. It tells about the most popular books sold by the Government—nearly 1,000 in all. Books on agriculture, business, children, diet, energy, health, history, space, and much, much more. For a free copy of this new catalog, write—

New Catalog

Superintendent of Documents
Washington, D.C. 20402

