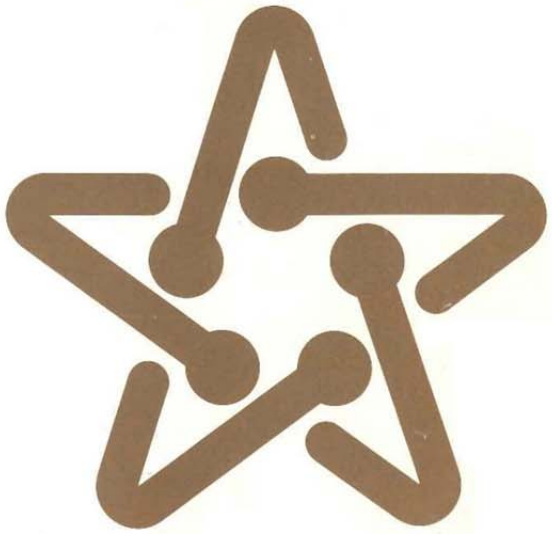
Monthly Energy Review

October 1974



Federal Energy
Administration

National Energy
Information Center

Washington
D.C. 20461

Foreword

The Federal Energy Administration is charged with the responsibility for collecting, analyzing, and disseminating energy-related information. Through FEA's National Energy Information Center, a variety of technical reports have been published. This new report, *Monthly Energy Review,* incorporates the energy information previously published in the *PIMS Monthly Petroleum Report,* the supplements to the *PIMS,* and *Monthly Energy Indicators.* Other data elements will be included as they are developed. The introduction of *Monthly Energy Review* is part of our continuing effort to meet your information needs.

Eric R. Zausner
Assistant Administrator for Policy and Analysis

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Part 1 Overview

The domestic production of energy for the first 8 months of 1974 was comparable to the output during the same period of 1973. Minor changes did occur in the mix of domestically produced fossil fuels. As of the end of August 1974, the portion of total U.S. energy production contributed by coal was 23.9 percent, a 1 percent increase above coal production for the first 8 months of 1973. For the same period in 1974, natural gas production represented 40.4 percent of the total, a decline from 41.2 percent in 1973. Petroleum production declined from 29.8 percent of the total in 1973 to 29.2 percent in the 1974 period.

The domestic production of crude oil declined in 1974 by 3 percent from the level achieved in the first 8 months of 1973. Imports have tended to compensate for the decrease in domestic production, especially from April through August of this year. Crude oil stocks in 1974 have been maintained at levels comparable to those held in the same period of 1972, and above those recorded for 1973.

With natural gas production declining by 3 percent from last year and imports declining by 7 percent, significant shortages are expected for this coming winter. The shortage of natural gas is further complicated by the recent Canadian Government announcement that natural gas export prices will be increased on January 1, 1975, from the current price of $0.60 to $1.00 per thousand cubic feet. U.S. importers have the option of either accepting the price increase, or continuing to pay the current price with termination of Canadian imports after 2 years. Nearly all U.S. imports of natural gas are from Canada. All U.S. imports are equivalent to 5 percent of the total natural gas domestically produced. Therefore, the higher import price will have an impact on prices and supplies of fuel this winter.

The production of electricity at public utilities appeared to level off during the first 8 months of 1974 when compared to the same period in 1973. This is in contrast to the 7 percent growth rate attained each year since 1971.

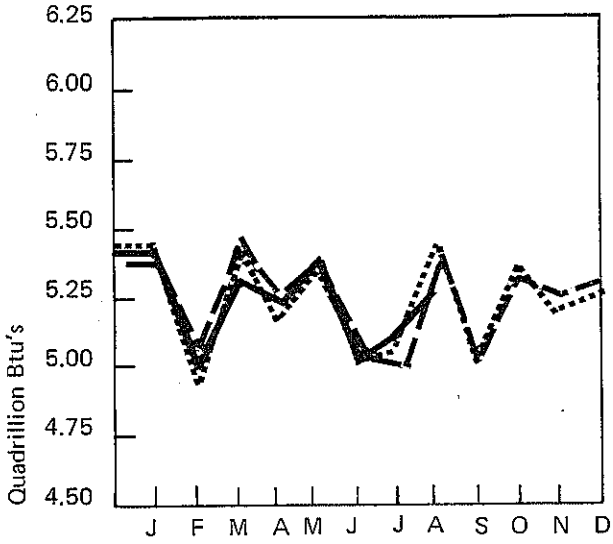
August 1974 stocks of both distillate and residual fuel oils were well above the supplies held a year ago. Coal stocks, as of the end of July, were slightly lower than those held in 1973. As of the end of July, oil stocks at public utilities were more than 55 percent higher than the supplies in 1973, and coal stocks were a little higher than the 1973 level.

At the end of August, oil and coal stocks were approximately the same as in 1973. No significant gasoline shortages were noted during the peak demand

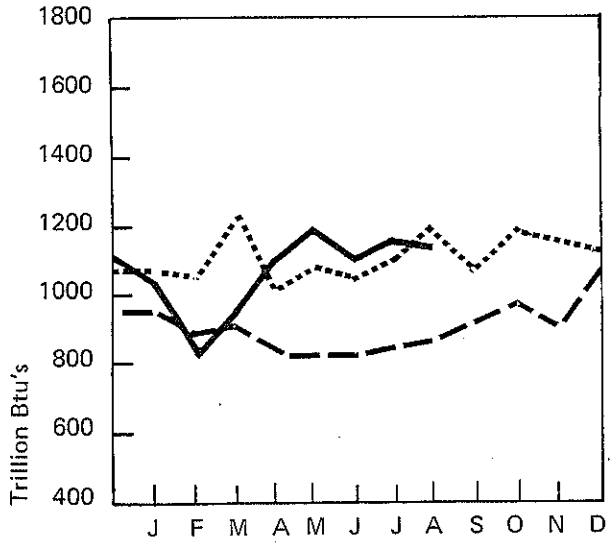
season, and stock levels were at record highs. Gasoline consumption from June through August of 1974 was 2.6 percent less than for the same period in 1973. Part of the reason for this decline can probably be attributed to the higher gasoline prices this year when compared with those in 1973. Prices this summer for regular gasoline averaged 43 cents per gallon, less tax, or about 60 percent higher than the average price for last summer. Retail gasoline prices in August 1974 declined for the first time in over a year, although the purchase price to dealers continued to edge upward. Average dealer margins declined on all gasoline products, with those of independent dealers showing decreases of as much as 0.7 cents per gallon for regular gasoline.

In resource development, oil and gas exploration showed a dramatic increase in activity for the first 8 months of 1974. Rotary drilling rigs were utilized at near capacity for the period. An average of 1,575 rotary rigs were in operation, an increase of 23 percent above the activity for the same period in 1973. The number of wells drilled so far in 1974 totals 19,868, a significant increase over the 1973 total of 16,295 and the 1972 total of 17,419. The 1974 figures on wells drilled and rotary rigs operating confirm the upswing in oil and gas exploratory activities. However, with only 123 new rigs estimated to be available for domestic use through 1973, a shortage of drilling rigs may develop and place a constraint against further expansion of drilling activities in the near future.

Domestic Production of Energy



Imports of Fossil Fuels



1972
1973
1974

Part 2

Energy Sources

Crude Petroleum and Petroleum Products

Crude Oil

For the second consecutive month, August crude runs to stills were higher than for the corresponding month in 1973. Due to the Arab oil embargo and conservation efforts, runs were down from 1973 levels by as much as 7 percent during the early part of this year. Crude runs averaged 12,798,000 barrels per day in August, almost equal to the high for the year in July of 12,905,000 barrels per day. Furthermore, announced curtailments in natural gas and the possibility of disruption in coal production will probably result in increased runs to stills the remainder of this year because of the attendant higher demand for petroleum fuel products.

Production of crude oil was maintained at a level just below 9 million barrels per day, a level it has been holding since March of this year. This level is in contrast to production volumes of 9.2 million barrels per day in August 1973 and 9.5 million barrels per day for the same month in 1972. This decline in domestic production has been offset by increased crude oil

	Crude Runs to Stills	Domestic Production	Imports	Stocks*
	In thousands of barrels per day			In thousands of barrels
1972				
January	11,388	9,114	2,046	236,776
February	11,356	9,336	2,081	238,882
March	11,345	9,462	2,067	244,860
April	11,184	9,513	2,004	253,492
May	11,478	9,614	2,160	265,305
June	11,841	9,522	2,085	257,601
July	11,885	9,496	2,182	251,913
August	11,915	9,483	2,112	244,333
September	12,112	9,508	2,364	237,085
October	11,871	9,482	2,516	239,949
November	11,851	9,426	2,299	237,519
December	12,113	9,335	2,667	232,803
1973				
January	12,190	9,179	2,732	224,056
February	12,187	9,373	2,873	221,893
March	12,201	9,175	3,162	230,696
April	12,208	9,233	3,049	235,383
May	12,281	9,303	3,215	244,777
June	12,862	9,209	3,220	235,846
July	12,750	9,195	3,501	230,750
August	12,636	9,161	3,593	235,660
September	12,560	9,077	3,471	228,280
October	12,758	9,172	3,740	233,520*
November	12,374	9,144	3,452	237,001
December	12,150	9,041	2,891	229,504
1974				
January	11,491	8,907	2,382	220,261
February	11,102	9,156	2,248	228,004
March	11,355	8,950	2,462	231,705
April	11,823	8,952	3,267	243,687
May	12,277	8,903	3,748	252,270
June	12,709	8,777	3,957	253,008
July	12,905	8,893	4,167	252,399
August	12,798	8,918	3,905	247,399

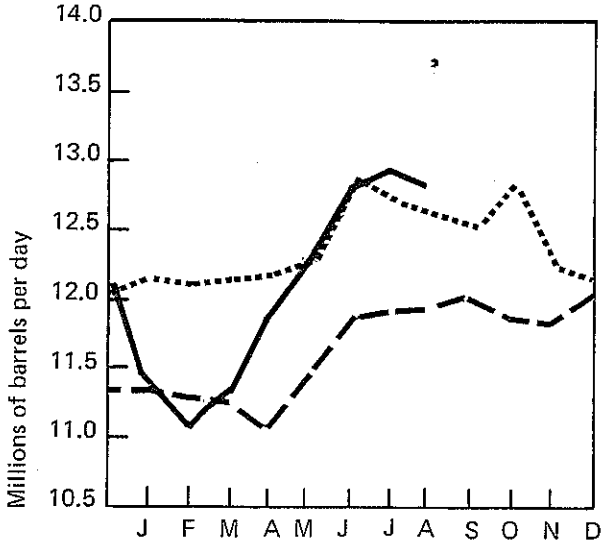
* See Definitions.
Sources: See Explanatory Note 2.

imports.

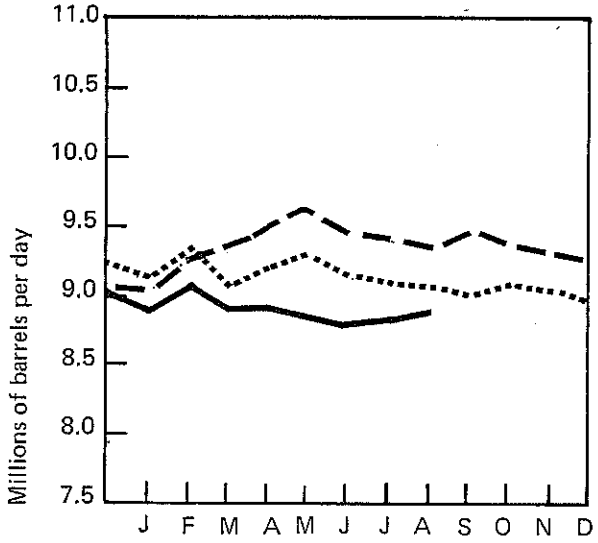
Crude oil imports in August declined 262,000 barrels per day from their record high levels in July, a decrease of 6.3 percent. This follows a period beginning in March 1974 when import volumes increased each month in order to compensate for losses experienced during the Arab oil embargo.

Inventories of crude oil in August declined 5 million barrels, or 2 percent, from July. This drawdown parallels similar seasonal stock withdrawals during August 1972 and August 1973.

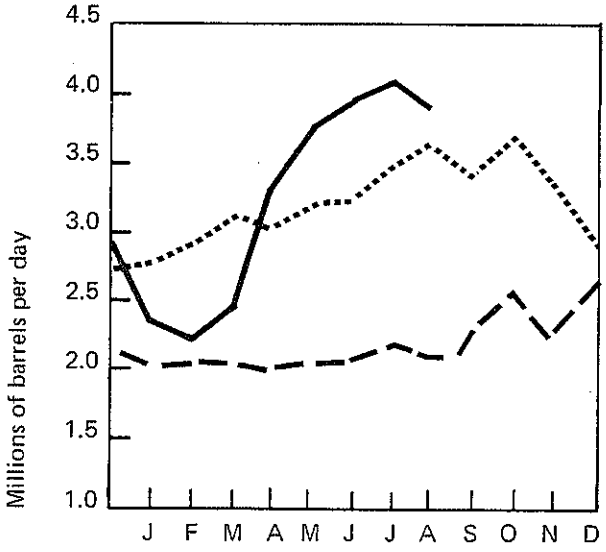
Runs to Stills *



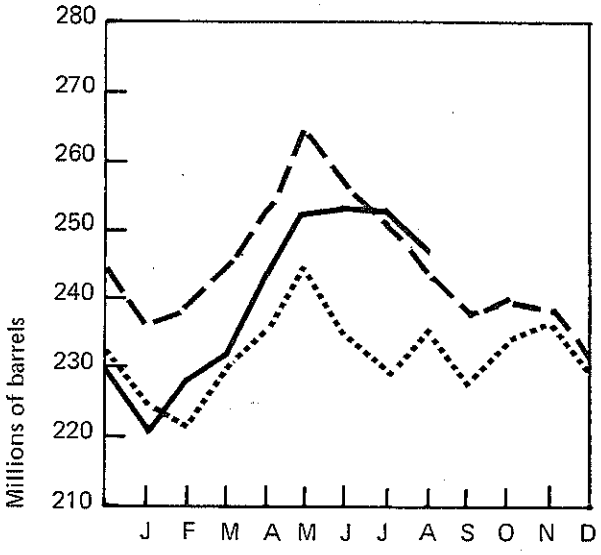
Domestic Production



Imports *



Stocks *



— — 1972
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* See Explanatory Note 3.

Total Refined Petroleum Products

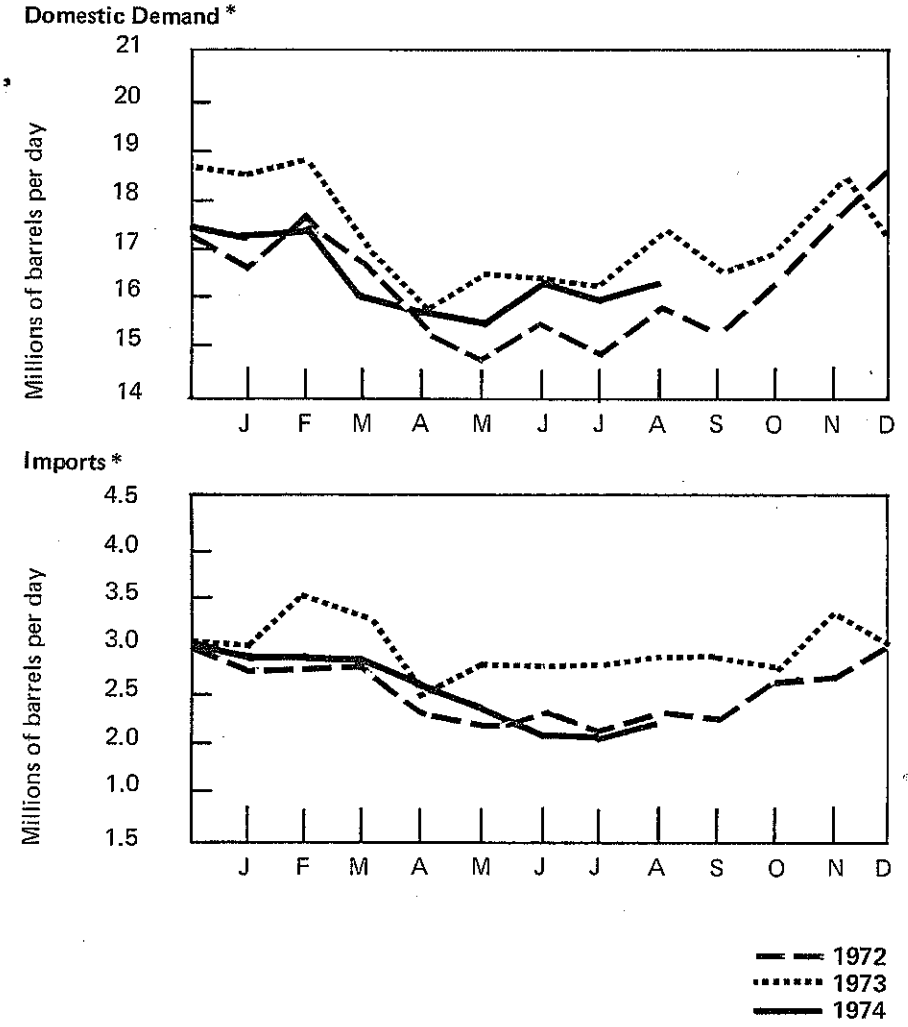
Apparent demand for all petroleum products was 16,332,000 barrels per day during August, 6.2 percent less than a year ago but 2.5 percent more than during August 1972. During 1974, total demand each month has stayed below the demand of the corresponding month in 1973. The peak demand period for refined products occurs during the winter months. However, a secondary peak also occurs during the summer, largely because of increased demand for motor gasoline. For the past 2 years, summer demand has peaked in August. This year the summer peak seems to have shifted to June at 16,459,000 barrels per day.

Imports show some seasonality with a high in the winter months. Refined product imports have increased each year since 1960. During the period 1970 through 1973, however, the annual increases were significantly greater. In 1971 product imports increased 7.2 percent over 1970 imports. In 1972 the increase was 12.8 percent, and in 1973 it was 16.8 percent. For 1972,

	Domestic Demand	Imports*
	In thousands of barrels per day	
1972		
January	16,735	2,721
February	17,861	2,764
March	16,870	2,730
April	15,529	2,298
May	14,801	2,208
June	15,615	2,382
July	14,821	2,215
August	15,936	2,344
September	15,489	2,342
October	16,455	2,607
November	17,610	2,653
December	18,738	3,039
1973		
January	18,667	3,079
February	18,941	3,501
March	17,193	3,413
April	15,924	2,540
May	16,603	2,603
June	16,471	2,659
July	16,387	2,671
August	17,414	2,913
September	16,620	2,903
October	17,095	2,785
November	18,434	3,412
December	17,429	3,055
1974		
January	17,270	2,973
February	17,371	2,973
March	16,045	2,753
April	15,919	2,703
May	15,624	2,454
June	16,459	2,218
July	16,156	2,143
August	16,332	2,286

* See Definitions.
Sources: Bureau of Mines through April 1974.
FEA from May 1974 forward.

though, product imports are experiencing a downward trend. For the first 8 months, only April showed higher imports than the same month in 1973. In the years 1970 through 1972, residual fuel oil was 75 to 77 percent of total product imports; in 1973 it dropped to 67 percent, with distillate fuel oil increasing from 7.8 percent in 1972 to 14.0 percent in 1973. This shift was largely caused by the concern for cleaner fuels. During the period 1970 through 1973, imports of motor gasoline varied from 2.8 percent (1972) to 4.8 percent (1973), and jet fuel varied from 7.3 percent (1970) to 8.6 percent (1971).



* See Explanatory Note 3.

Motor Gasoline

Domestic demand for motor gasoline during August was 1.2 percent less than during July, which was the high for the year, and 5.4 percent less than August 1973. In both 1972 and 1973, demand was highest during August. Based on this historical trend and on preliminary September data, demand for September 1974 should be lower than that of August. Each month of this year, demand has been less than the corresponding month last year.

Refinery output of motor gasoline was 6,761,000 barrels per day during August, 1.1 percent less than during July, and 1.8 percent less than during August 1973. As with demand, production of motor gasoline has been lower during each month of 1974 than during the corresponding month of 1973.

Motor gasoline imports do not show the same strong seasonality that demand and production show. From 1972 through early 1973, imports were more or less level. However, a trend of increased imports started in May 1973 that has lasted 16 months. During that period

	Domestic Demand	Production	Imports	Stocks* In thousands of barrels
	In thousands of barrels per day			
1972				
January	5,549	6,151	51	239,633
February	5,710	5,989	66	249,927
March	6,412	5,913	67	236,831
April	6,283	5,833	52	225,153
May	6,445	6,023	74	214,736
June	6,822	6,244	75	200,143
July	6,673	6,612	69	200,710
August	6,938	6,588	81	192,706
September	6,453	6,605	70	199,690
October	6,350	6,532	71	207,776
November	6,479	6,436	69	208,930
December	6,378	6,424	69	212,770
1973				
January	6,118	6,341	59	221,823
February	6,437	6,141	95	216,367
March	6,513	6,150	71	207,581
April	6,541	6,377	63	204,708
May	6,907	6,714	102	202,081
June	6,964	6,993	174	208,374
July	7,023	6,986	133	211,488
August	7,249	6,880	157	205,122
September	6,581	6,620	127	210,278
October	6,677	6,621	194	214,525
November	6,823	6,375	216	207,343
December	6,223	6,099	188	209,395
1974				
January	5,804	5,900	163	217,463
February	6,100	5,969	184	219,058
March	6,162	5,982	225	220,307
April	6,457	6,311	260	223,752
May	6,406	6,301	228	229,878
June	6,895	6,642	145	226,652
July	6,941	6,835	122	227,195
August	6,857	6,761	192	230,309

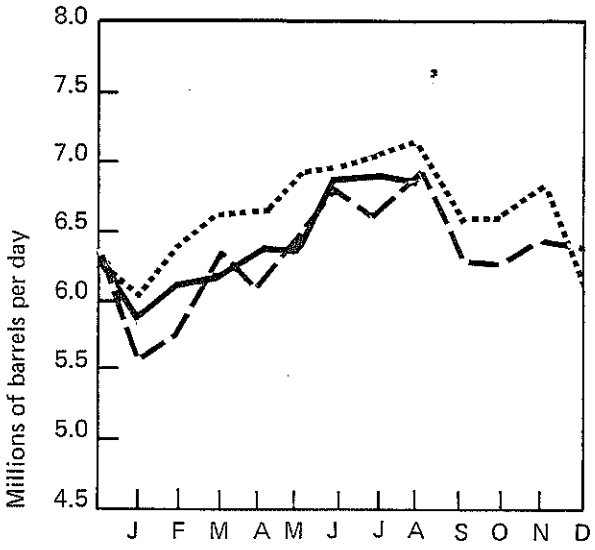
* See Definitions.

Sources: Bureau of Mines through April 1974.
FEA from May 1974 forward.

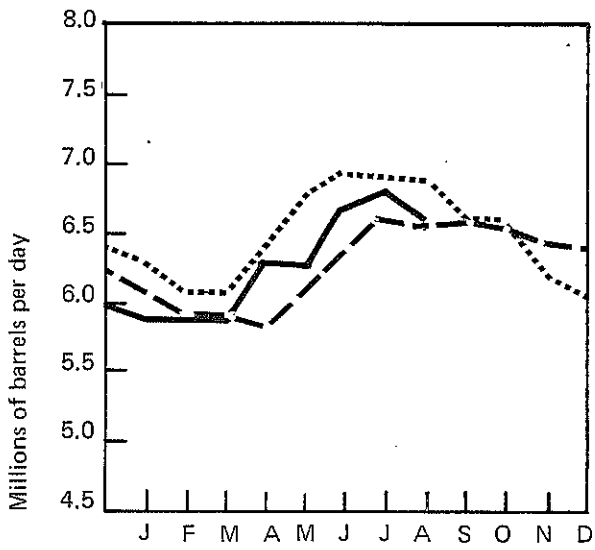
motor gasoline imports maintained a level over 100,000 barrels per day, and at times rose above 200,000 barrels per day. Imports reached their highest levels from March through May of 1974, a result of the embargo being lifted. June and July imports were off from those of the March through May period, and August imports were up again. With stocks at their current high level, there is no strong requirement for large imports of motor gasoline. It appears as though imports could level off at 125,000 to 200,000 barrels per day. For the year to date, imports total 46.1 million barrels.

Stocks of motor gasoline at 230.3 million barrels are at their highest August levels. Traditionally, there is a decline in stocks during the summer months, but the reduced demand and increased imports have allowed the buildup and maintenance of high stock levels.

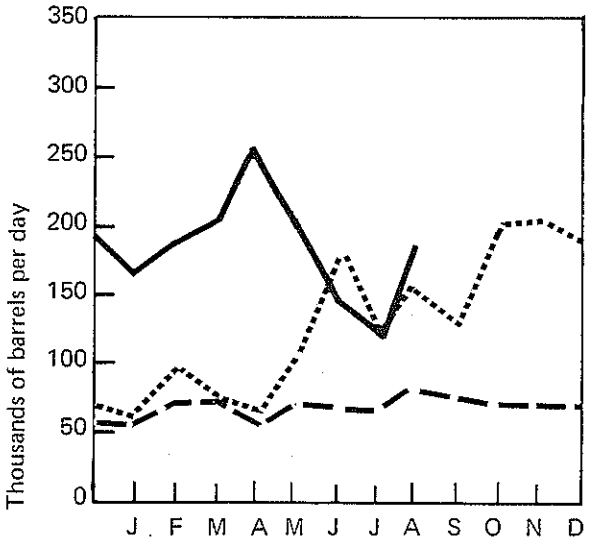
Domestic Demand*



Production*



Imports*



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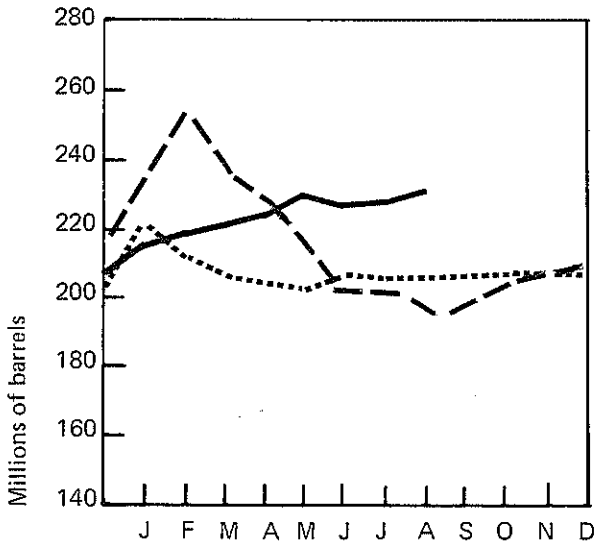


1972
1973
1974

* See Explanatory Note 3.

Jet Fuel

Jet fuels are classified as either naphtha jet, generally for military use, or kerosine jet, primarily for commercial consumption. The percentage breakdown for August 1974 demand was 20.4 percent for naphtha jet and 79.6 percent for kerosine jet, compared with 23.3 percent for naphtha-type and 76.7 percent for kerosine-type in August 1972. This decline in demand for naphtha-type as a percentage of total jet fuels was partly the result of the ending of the Vietnam war. Domestic demand of total jet fuels in August increased by 4.9 percent over the previous month and by 3.2 percent over August a year ago. This compares with an increase of 10.8 percent from August 1972 to August 1973. Demand declined dramatically during the embargo period in early 1974, showing a decrease of 92,000 barrels per day, or 10 percent during the first 5 months of 1974 compared with the same period in 1973.

Production of jet fuel in August increased by 4.4

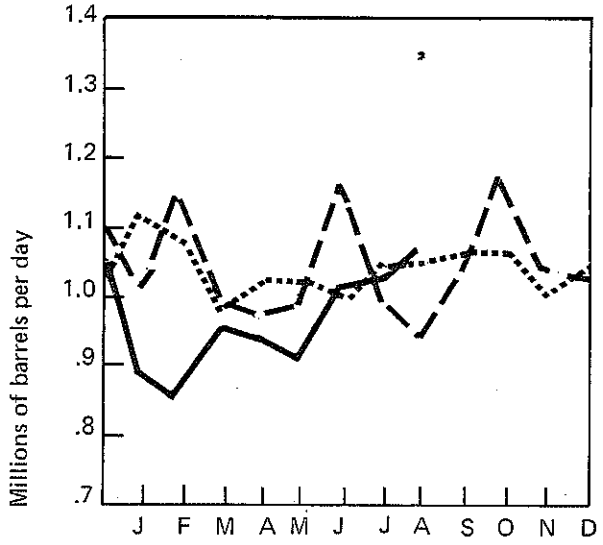
	Domestic Demand	Production	Imports	Stocks
	In thousands of barrels per day			In thousands of barrels
1972				
January	1,021	784	179	25,857
February	1,141	900	220	25,230
March	1,008	906	167	27,147
April	986	877	124	27,568
May	999	887	159	28,885
June	1,163	859	292	28,356
July	1,000	873	165	29,429
August	946	837	181	31,649
September	1,035	810	190	30,597
October	1,171	822	286	28,633
November	1,050	800	184	26,650
December	1,030	811	189	25,493
1973				
January	1,110	864	231	24,814
February	1,090	898	221	25,437
March	993	917	152	27,585
April	1,015	887	145	27,881
May	1,113	840	211	25,825
June	1,007	836	163	25,447
July	1,045	825	231	25,661
August	1,049	844	180	24,851
September	1,065	847	229	25,149
October	1,066	875	208	25,577
November	1,013	852	263	28,539
December	1,038	830	210	28,544
1974				
January	895	800	136	29,732
February	860	783	75	29,617
March	956	832	139	29,996
April	941	868	132	31,725
May	915	873	97	33,574
June	1,016	886	115	33,128
July	1,032	813	188	32,231
August	1,083	849	210	31,540

Sources: Bureau of Mines through April 1974.
FEA from May 1974 forward.

percent over July and by 0.5 percent over August 1973. This parallels last year's increase of 0.8 percent over August 1972 levels. Imports increased by 11.7 percent over July and by 16.7 percent over August of the previous year. Imports for August 1973 declined from August 1972 by 0.5 percent.

Stocks for August 1974 declined by 2.1 percent from July, but were up 26.9 percent from August 1973. The stock buildup is a reflection of decreased demand during the first part of 1974.

Domestic Demand*



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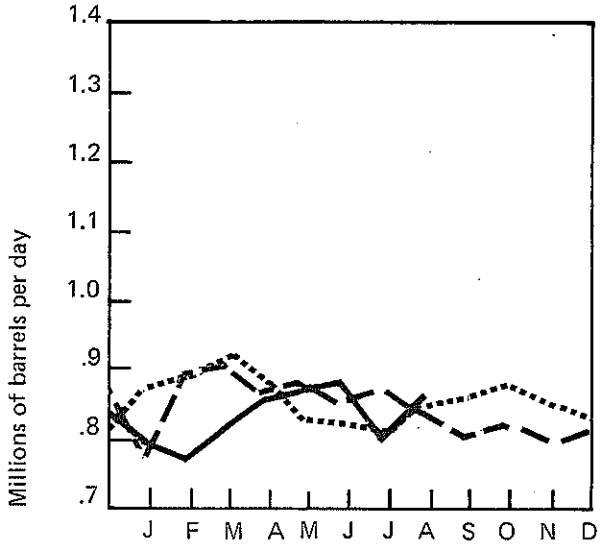
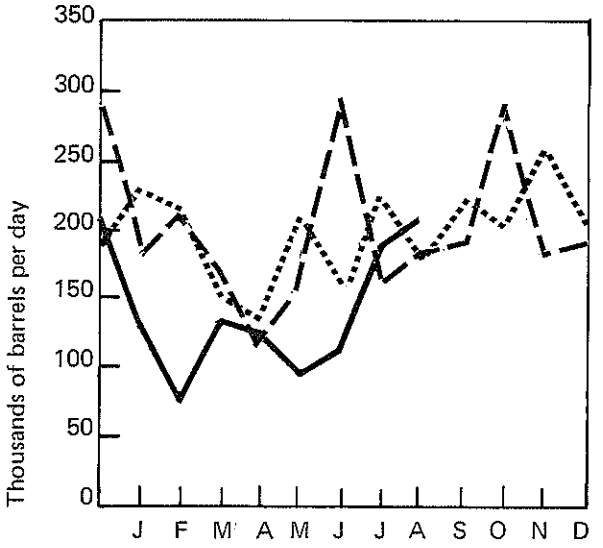


Imports *



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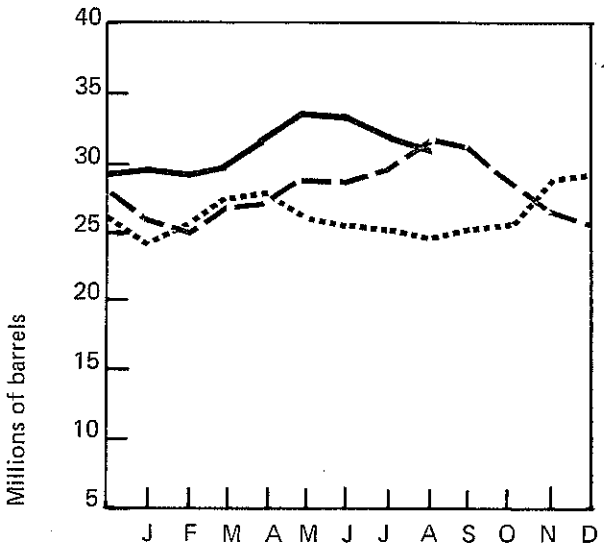


1972
1973
1974

* See Explanatory Note 3.

Distillate Fuel Oil

Distillate fuel demand for August 1974 increased slightly over the previous month while it showed a decrease of 277,000 barrels per day from August 1973. The seasonal demand of distillate fuel oil for heating purposes starts to increase in October with a peak month in February. This seasonal trend is reflected in the increase of inventories since April 1974.

Inventories of distillate fuel oil for August 1974 are at a record level compared with previous data. Stocks at the end of August were running 23 to 24 percent above levels experienced in 1972 and 1973. These extremely high levels are due in part to added coverage of FEA data as compared with the Bureau of Mines. Imports of distillate fuel oil have declined since the first of the year, partially because the buildup in stocks has lessened the necessity to import distillate at rates which might normally be expected.

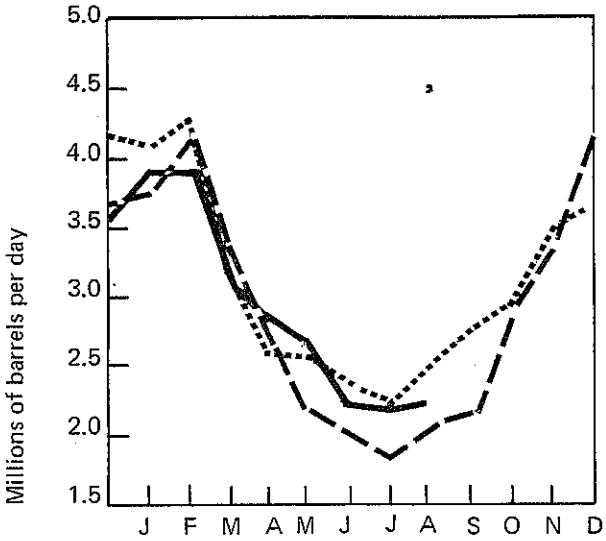
Production of distillate fuel oil in August 1974

	Domestic Demand	Production*	Imports	Stocks*
	In thousands of barrels per day			In thousands of barrels
1972				
January	3,723	2,538	197	160,027
February	4,164	2,653	204	122,154
March	3,482	2,564	257	101,728
April	2,778	2,476	189	98,288
May	2,250	2,585	132	112,892
June	2,194	2,623	96	128,739
July	1,765	2,529	97	155,557
August	2,064	2,582	92	174,674
September	2,205	2,624	99	190,250
October	2,759	2,722	203	195,530
November	3,383	2,719	227	182,581
December	4,232	2,938	382	154,284
1973				
January	4,134	3,028	360	130,958
February	4,243	2,937	672	113,276
March	3,314	2,667	579	111,270
April	2,635	2,510	240	114,698
May	2,652	2,544	247	119,104
June	2,412	2,825	215	137,844
July	2,329	2,752	319	160,869
August	2,554	2,801	286	177,271
September	2,660	2,813	298	190,171
October	2,916	2,911	436	202,965
November	3,508	2,922	493	200,182
December	3,685	3,136	434	196,421
1974				
January	3,820	2,880	449	181,179
February	3,835	2,399	293	149,125
March	3,145	2,226	267	128,822
April	2,848	2,522	216	125,553
May	2,616	2,741	288	151,345
June	2,249	2,818	175	173,639
July	2,251	2,881	168	198,374
August	2,277	2,779	112	217,449

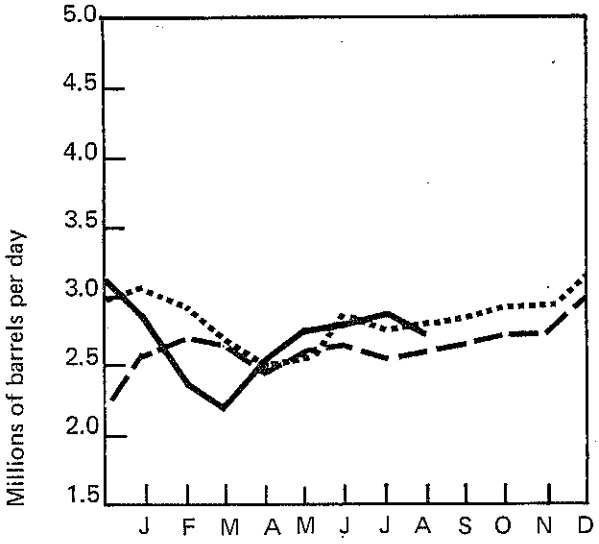
* See Definitions.
Sources: Bureau of Mines through April 1974.
FEA from May 1974 forward.

decreased 102,000 barrels per day from July. The 8-month average production of distillate has decreased 103,000 barrels per day from 1973 but increased 90,000 barrels per day over 1972.

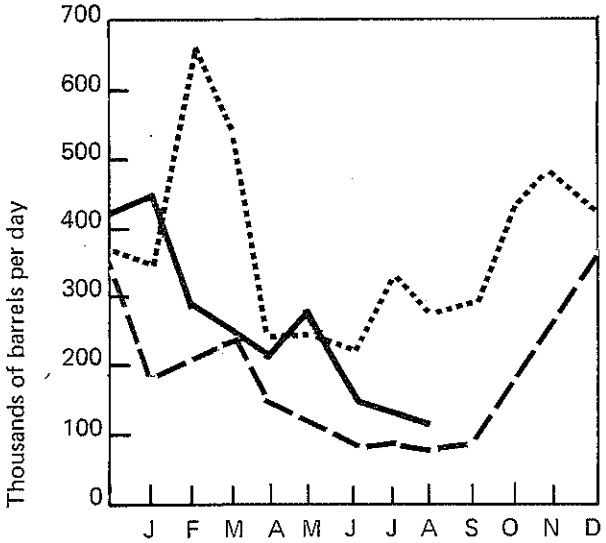
Domestic Demand*



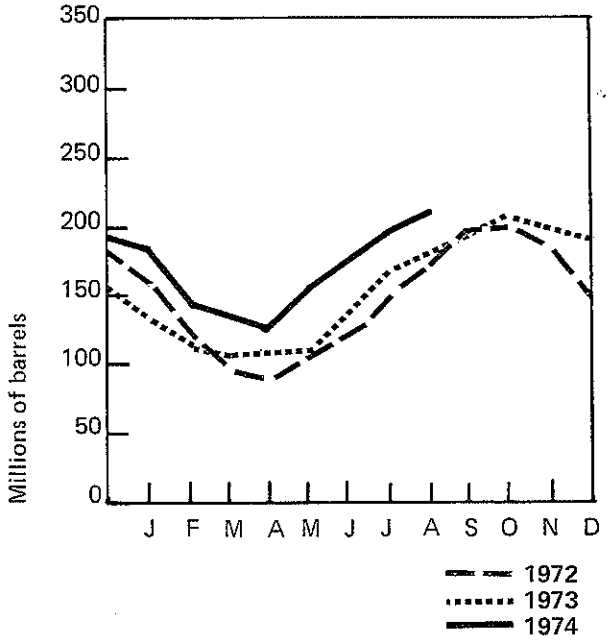
Production*



Imports*



Stocks*



* See Explanatory Note 3.

Residual Fuel Oil

Domestic demand for residual fuel oil in August at 2,416,000 barrels per day was down 11 percent from last year, but up 7 percent over August 1972. The August increase in demand was 13.2 percent over July. This follows the seasonal pattern for residual fuel oil with a low point in the middle of summer and a high point in the winter.

Production of residual fuel is at its high level for 1974, a reverse of the situation in the previous 2 years. This correlates with the high level in the production of distillate fuel oil this year. Production in August was 32.3 percent greater than in August 1973 and 67.1 percent greater than in August 1972.

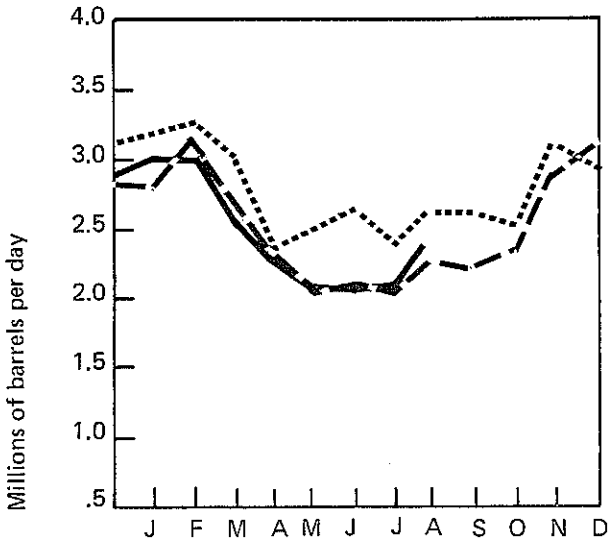
Stocks of residual fuel oil at 74.7 million barrels increased 1.6 million barrels over July 1974. These record levels of residual fuel oil are partially attributed to added report coverage of FEA. Stocks that are reported to FEA, but not to the Bureau of Mines,

	Domestic Demand	Production	Imports	Stocks
	In thousands of barrels per day			In thousands of barrels
1972				
January	2,815	924	1,892	59,440
February	3,171	963	1,923	50,891
March	2,682	828	1,926	51,566
April	2,444	739	1,676	49,425
May	2,111	664	1,573	53,035
June	2,196	661	1,649	56,109
July	2,107	673	1,594	60,230
August	2,257	674	1,653	61,399
September	2,239	710	1,625	63,692
October	2,362	745	1,655	63,758
November	2,843	890	1,769	57,702
December	3,151	1,124	1,968	55,216
1973				
January	3,262	1,112	1,977	49,154
February	3,305	1,038	2,072	43,058
March	3,071	955	2,185	44,711
April	2,472	877	1,703	47,044
May	2,518	948	1,666	49,207
June	2,602	915	1,757	51,811
July	2,430	882	1,597	53,363
August	2,690	851	1,850	53,586
September	2,667	878	1,842	55,091
October	2,547	984	1,556	54,964
November	3,118	1,061	1,942	51,985
December	2,910	1,158	1,793	53,480
1974				
January	3,035	1,072	1,732	46,548
February	3,010	1,029	1,923	45,004
March	2,516	912	1,674	47,222
April	2,432	984	1,587	51,339
May	2,111	992	1,250	64,548
June	2,177	1,058	1,260	68,646
July	2,135	1,091	1,197	73,066
August	2,416	1,126	1,342	74,674

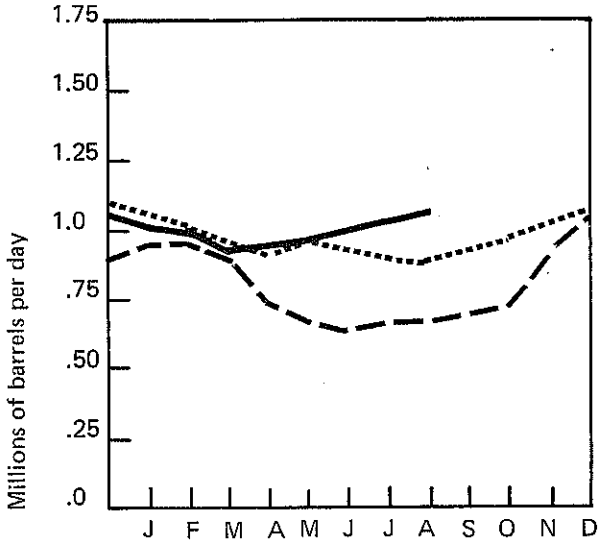
Sources: Bureau of Mines through April 1974.
FEA from May 1974 forward.

account for approximately 13 million barrels of the total. Even at this "reduced" level (61.7 million barrels), inventories would be higher than those for the corresponding month last year.

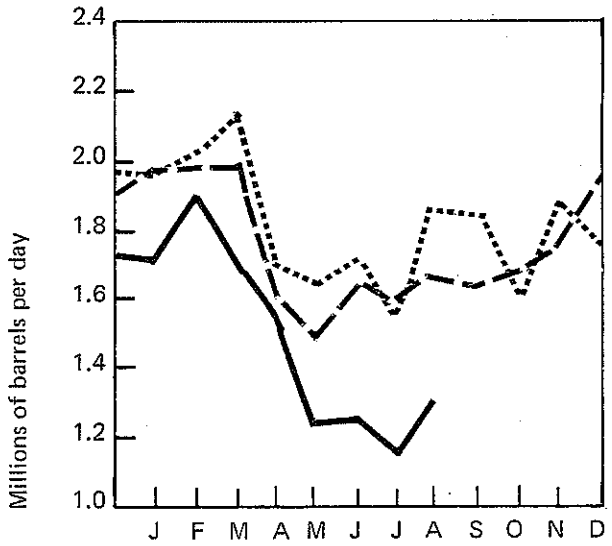
Domestic Demand *



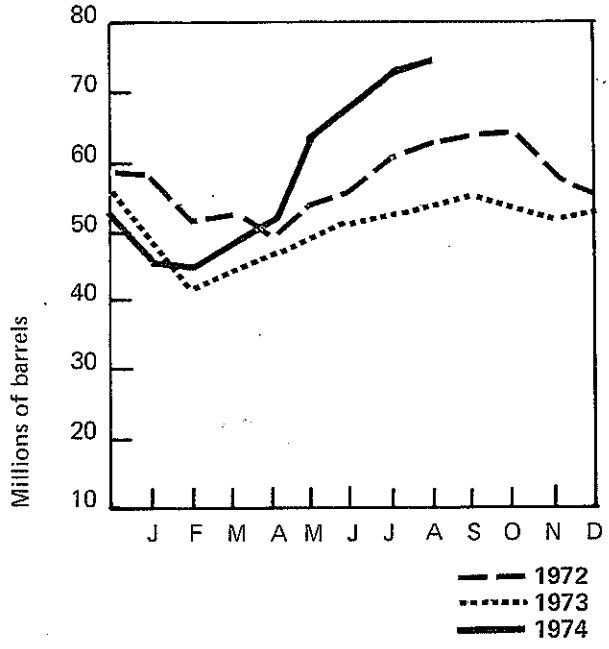
Production *



Imports *



Stocks *



* See Explanatory Note 3.

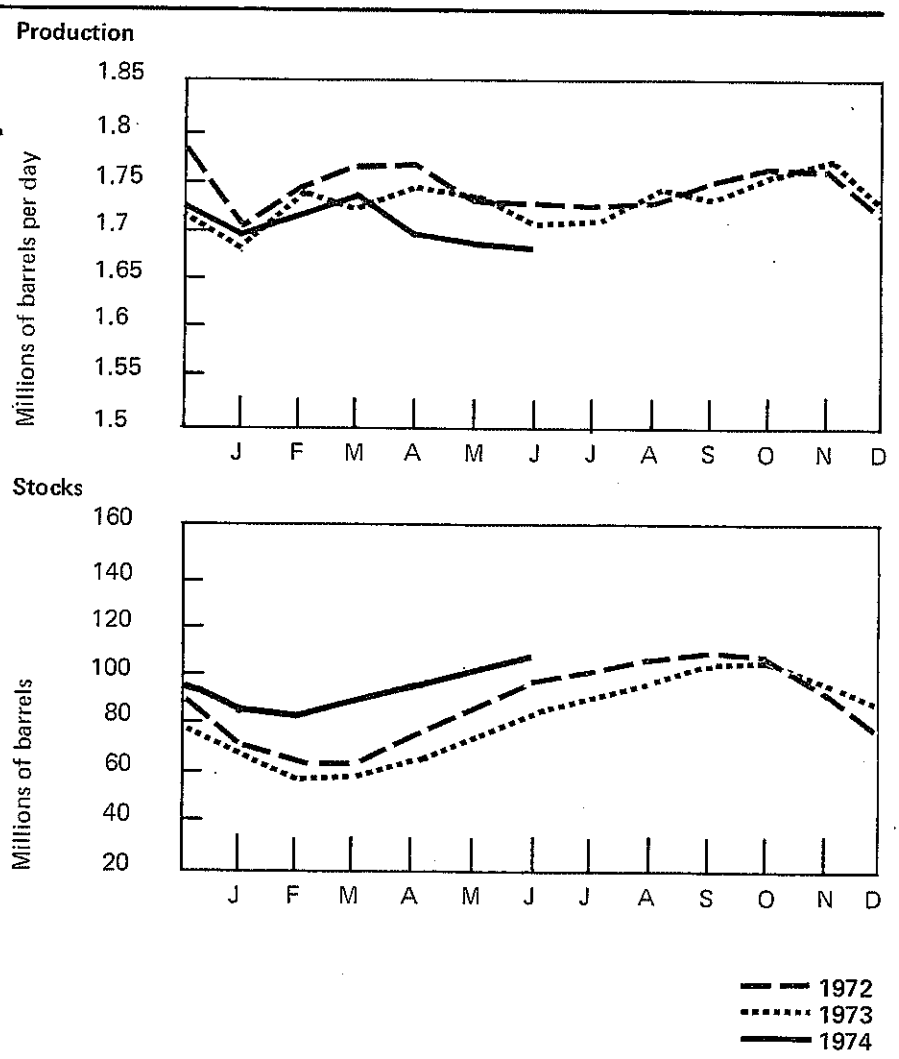
Natural Gas Liquids

Production of natural gas liquids was down only slightly during the first 6 months of 1974, as compared with the first half of 1973. The only product for which there was a significant increase in production was ethane, which was up over 9 percent. The production of propane, which accounts for the largest portion of these liquids, was down by over 3 percent, while butane production dropped by slightly over 1 percent.

In contrast to this slight decline in production, closing stocks of natural gas liquids at the end of June were 34 percent higher than a year ago. Stocks of natural gas liquids show strong seasonality, with declines occurring from October through February and increases during the spring and summer months.

	Production	Stocks
	In thousands of barrels per day	In thousands of barrels
1972		
January	1,705	76,704
February	1,747	68,232
March	1,768	68,777
April	1,769	75,101
May	1,737	84,984
June	1,734	92,831
July	1,731	100,363
August	1,739	104,397
September	1,751	108,853
October	1,769	105,098
November	1,757	94,673
December	1,721	79,238
1973		
January	1,680	64,343
February	1,745	55,997
March	1,734	58,471
April	1,749	65,297
May	1,739	73,942
June	1,727	83,057
July	1,737	93,362
August	1,748	98,996
September	1,741	103,907
October	1,756	104,215
November	1,774	98,320
December	1,729	94,106
1974		
January	1,699	85,820
February	1,728	84,734
March	1,741	89,362
April	1,696	95,707
May	1,689	104,739
June	1,684	111,356

Source: Bureau of Mines.


Production
Millions of barrels per day
1.85
1.8
1.75
1.7
1.65
1.6
1.55
1.5
J F M A M J J A S O N D
Stocks
Millions of barrels
160
140
120
100
80
60
40
20
J F M A M J J A S O N D
1972
1973
1974

Natural Gas

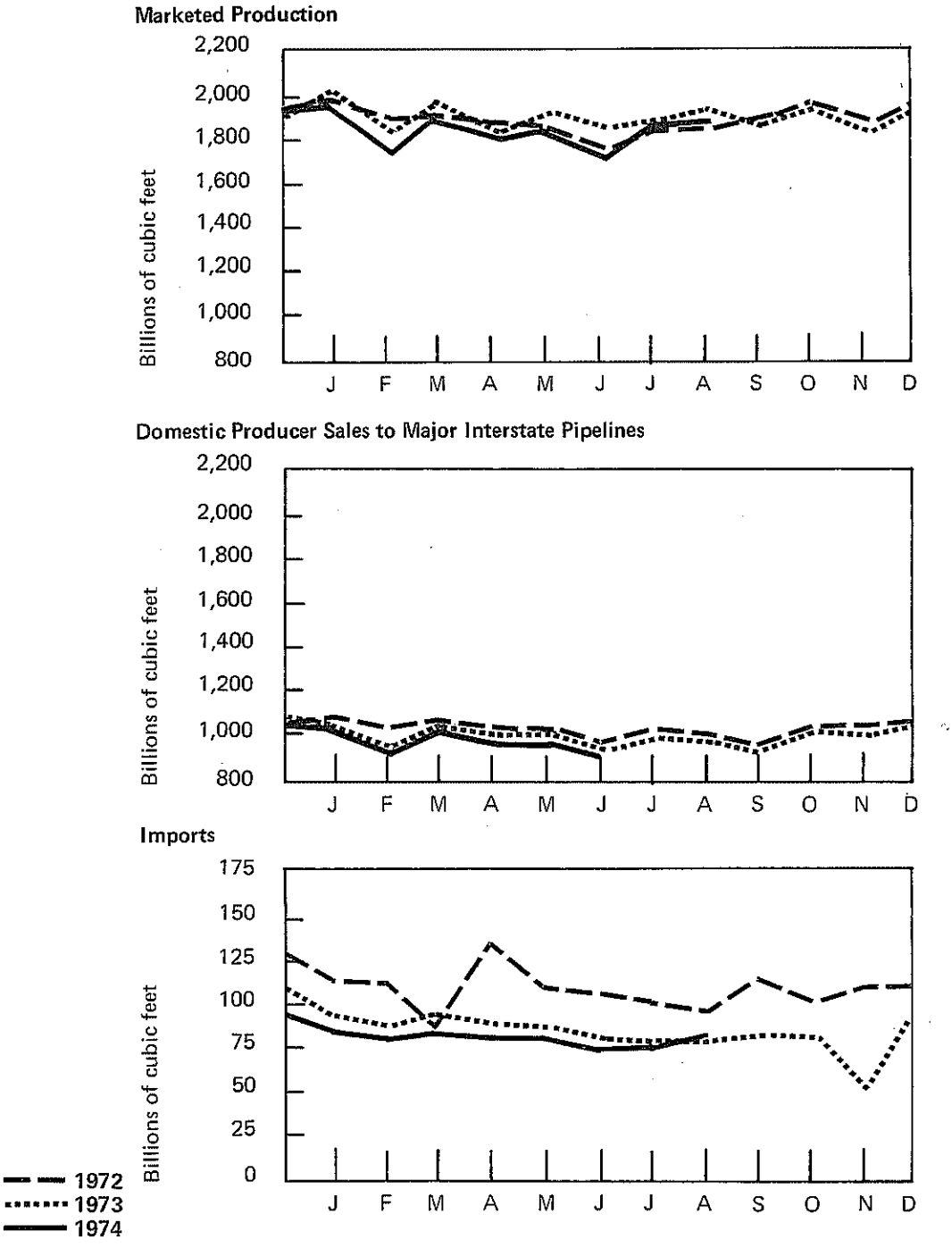
The supply of natural gas in the U.S. dropped significantly during the first half of 1974. Marketed production of natural gas during the first 6 months of this year was 3.1 percent less than a year ago. Imports and domestic producer sales to interstate pipelines were also lower by 7.1 percent and 3.0 percent, respectively. The decline in imports has been attributed to limitations imposed by the Canadian Government on exports of natural gas. Historically, more than 99 percent of U.S. natural gas imports come from Canada.

The Federal Power Commission estimates from reports by major gas pipeline companies that supply deficiencies for the 1974-75 heating season (November-March) will total over 750 billion cubic feet of gas, or about 80 percent more than the 425 billion cubic feet actually curtailed by these pipelines last winter. The bulk of these curtailments will fall on electric utilities and industrial users of natural gas who usually have

	Marketed Production	Domestic Producer Sales to Major Interstate Pipelines	Imports
		In billion cubic feet	
1972			
January	1,994	1,086	117
February	1,902	1,035	112
March	1,937	1,091	88
April	1,893	1,050	134
May	1,867	1,045	111
June	1,797	985	108
July	1,837	1,013	102
August	1,859	1,007	97
September	1,854	970	114
October	1,889	1,040	103
November	1,896	1,041	111
December	1,961	1,065	111
1973			
January	2,007	1,069	93
February	1,824	963	84
March	1,984	1,052	92
April	1,869	1,007	89
May	1,898	1,026	87
June	1,839	963	79
July	1,885	999	77
August	1,897	994	78
September	1,839	956	82
October	1,882	1,001	80
November	1,869	1,000	53
December	1,933	1,036	89
1974			
January	1,944	1,033	86
February	1,773	941	79
March	1,907	1,027	85
April	1,812	987	83
May	1,853	981	80
June	* 1,776	928	74
July	** 1,840		75**
August	** 1,850		80**

* Preliminary data.
** Projected data.
Sources: Marketed Production and Imports – Bureau of Mines.
Domestic Producer Sales – Federal Power Commission.

facilities capable of burning some type of alternative fuel, such as liquid petroleum or coal. Clearly, the reduced availability of natural gas will place greater demand on these alternative fuels.



Coal

Bituminous and Lignite

The production of coal in the first 7 months of 1974 totaled 369.6 million tons. This represented a substantial increase — amounting to 34.4 million tons — over the same period in 1973 when production was 335.2 million tons.

Coal consumption in the months of January-July of 1974 totaled 325.0 million tons, which amounted to a modest gain of 2.9 million tons or 0.9 percent versus 1973. The volume gain in the same 7 months in 1973 was almost 10 times as large, i.e., 28.3 million tons.

Coal exports in the first 7 months of 1974 at 33.3 million tons were significantly above the 1973 level of 28.4 million tons for this same 7-month period.

Although coal imports have never been a factor of any importance in the U.S. supply/demand picture, there is growing evidence in 1974 that they can no longer be ignored. For the months of January-July, total imports

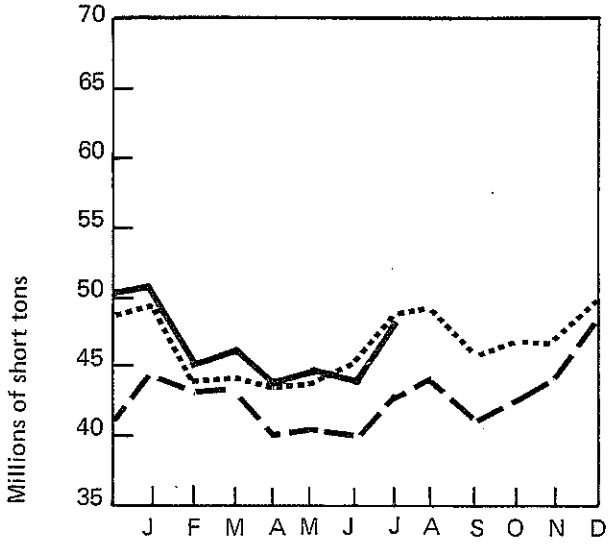
	Domestic Consumption	Production	Exports	Stocks
		In thousands of short tons		
1972				
January	44,400	49,680	3,630	92,908
February	43,516	49,112	3,660	93,356
March	44,025	54,438	4,624	97,855
April	40,296	49,814	4,915	103,702
May	40,695	52,879	5,416	110,597
June	40,599	50,083	4,882	114,493
July	43,191	40,964	3,627	109,733
August	44,891	52,169	6,337	112,865
September	42,286	49,374	4,923	114,346
October	43,362	51,671	5,210	117,995
November	44,438	50,297	5,380	119.211
December	48,077	44,904	3,392	115,313
1973				
January	49,838	49,540	2,954	108,590
February	44,652	46,030	2,669	106,422
March	44,814	50,635	3,377	109,065
April	43,673	47,095	5,062	110,861
May	44,600	51,555	5,140	114,511
June	45,979	46,710	4,969	107,616
July	48,577	43,675	4,188	105,027
August	49,666	55,005	5,113	104,488
September	46,229	48,785	3,424	103,561
October	47,599	54,800	5,882	104,397
November	47,593	50,550	5,214	104,095
December	50,130	48,050	4,889	99,020
1974				
January	50,415	53,470	2,813	96,005
February	45,122	49,010	4,627	93,970
March	46,402	51,455	3,179	97,445
April	44,065	53,065	4,944	103,997
May	45,112	56,090	6,032	107,668
June	44,631	47,635	6,369	108,765
July	48,700	48,905	5,307	104,700

Source: Bureau of Mines.

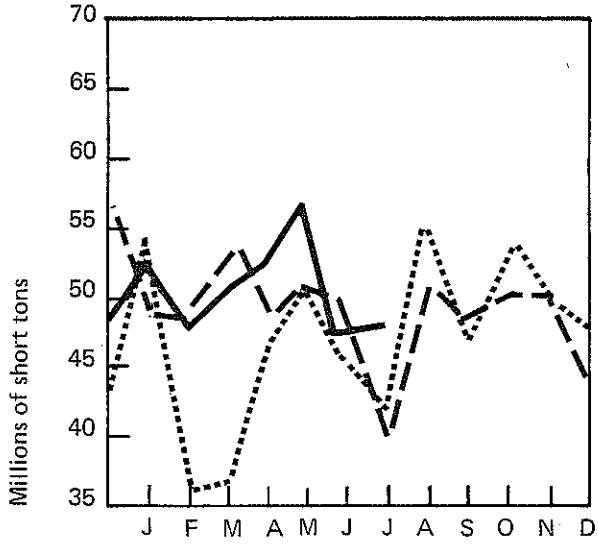
came to 700,000 tons. By comparison, the figure for these same months in 1973 was 6,000 tons.

Coal stocks at the end of July were 104.7 million tons, as compared to the 108.8 million tons available at the end of June.

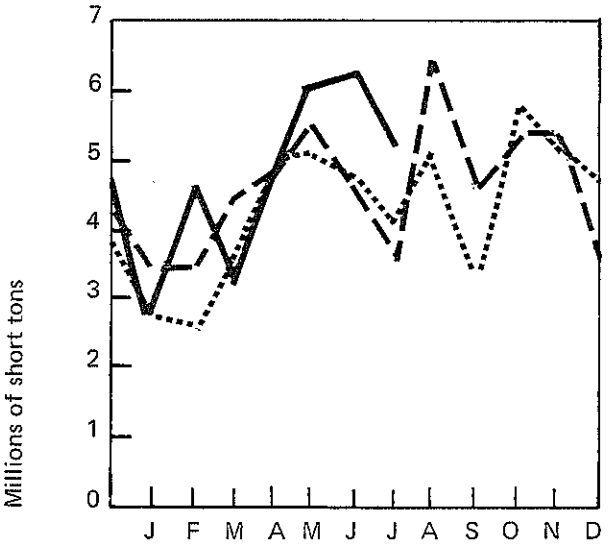
Domestic Consumption



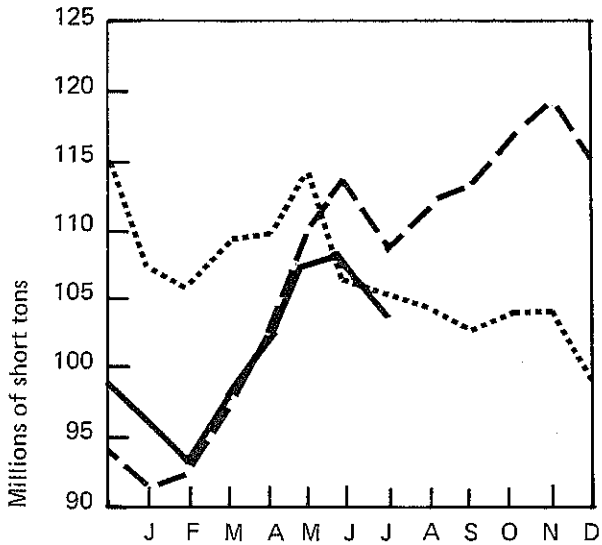
Production

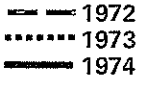


Exports



Stocks





Part 3

Electric Utilities

Electric Utilities

During July, electric power production was up 1.4 percent over that month of the previous year; however, cumulative production for the first 7 months of this year still lags behind that of the comparable period in 1973, being about 1 percent less.

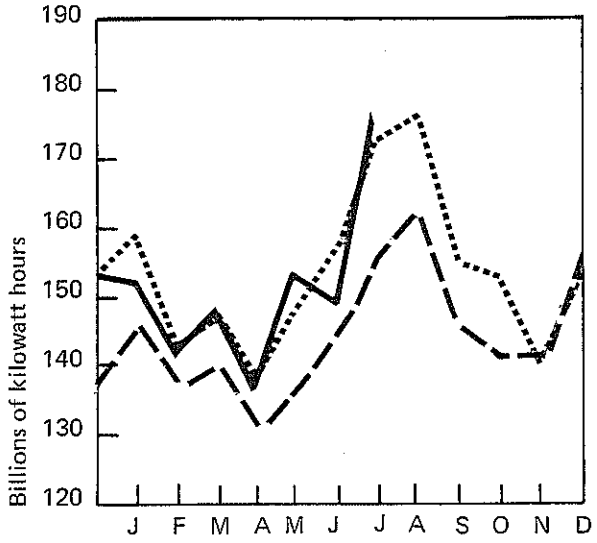
In terms of fossil fuels used for electric power generation, approximately the same amount of thermal energy was used as in July 1973. Interestingly, the mix of fuels changed somewhat, with coal consumption up by 2.8 percent and gas and oil down 3.6 percent and 4.0 percent, respectively.

Electric utility coal stocks were about the same as the previous year and represented, on average, an 80-day supply. In contrast, oil stocks have grown by about 56 percent over the past 12 months and currently represent approximately a 60-day supply, on the average.

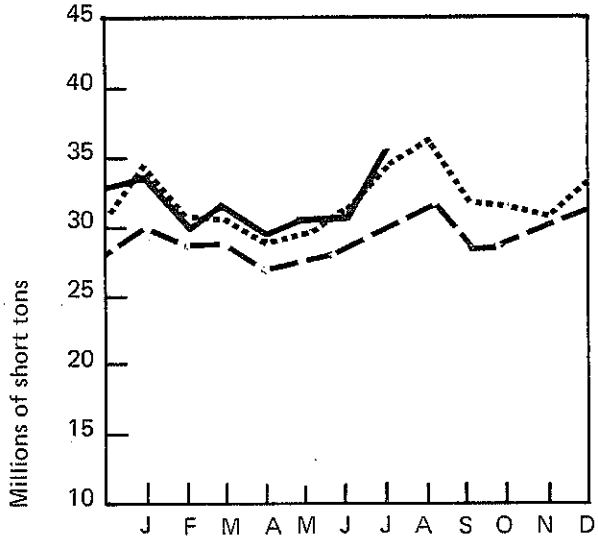
	Production	Fuel Consumption		
		Coal	Oil	Gas
	In millions of kilowatt hours	In thousands of short tons	In thousands of barrels	In millions of cubic feet
1972				
January	144,575	30,231	46,555	251,029
February	137,400	28,946	43,325	258,859
March	140,056	28,472	38,809	294,804
April	132,138	26,093	32,325	312,229
May	137,745	26,823	32,106	351,543
June	145,523	27,749	35,098	394,585
July	157,846	30,214	40,646	433,533
August	162,822	31,651	41,073	448,594
September	147,358	28,988	38,723	398,799
October	143,742	29,133	42,876	337,567
November	143,867	29,926	47,914	262,447
December	154,350	32,817	54,479	234,683
1973				
January	159,320	34,591	55,773	219,270
February	143,109	30,921	46,978	212,983
March	147,754	30,746	42,701	255,314
April	139,273	29,209	35,845	267,151
May	147,021	29,683	38,097	316,989
June	158,812	31,953	46,669	363,239
July	172,539	34,833	50,956	414,408
August	175,928	36,065	55,166	482,053
September	156,304	32,723	47,937	418,776
October	153,888	32,398	48,033	327,010
November	140,785	31,856	45,158	247,038
December	153,276	33,704	44,696	217,049
1974				
January	152,226	34,468	46,700	222,080
February	141,723	30,062	41,186	185,468
March	148,046	31,135	40,007	244,288
April	137,586	29,452	38,124	238,272
May	153,076	31,341	41,046	304,166
June	148,119	31,892	41,084	341,067
July	175,057	35,809	48,909	399,259

Source: Federal Power Commission.

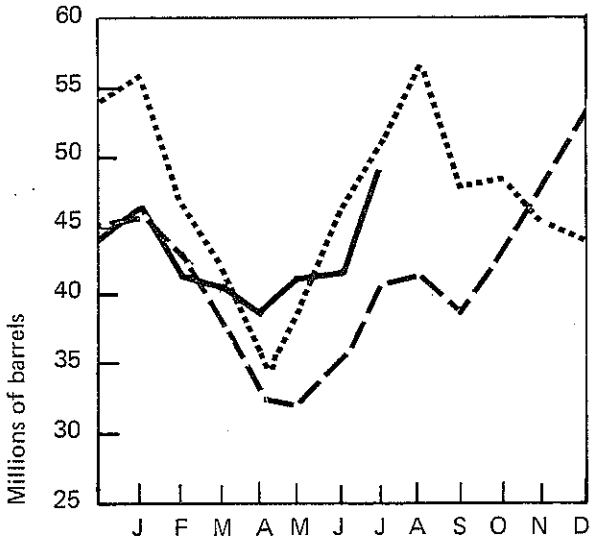
Production



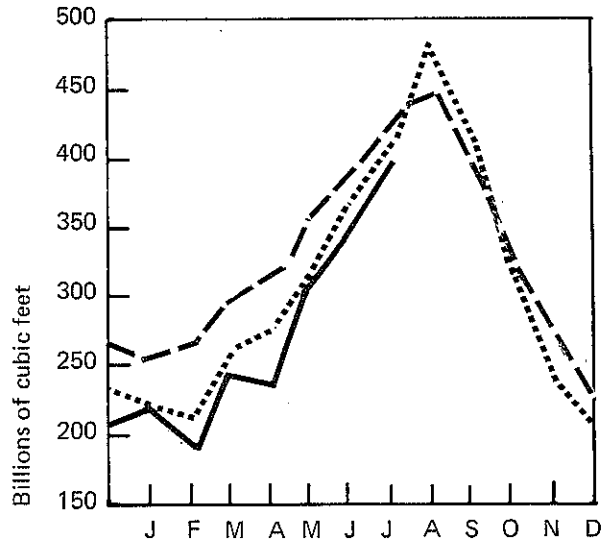
Coal Consumption



Oil Consumption



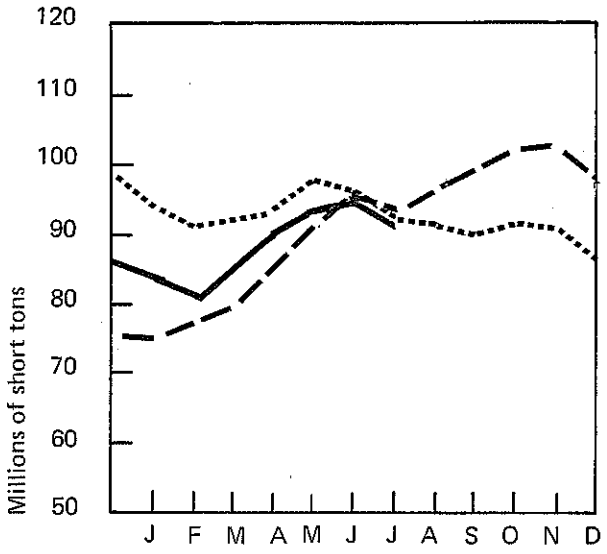
Gas Consumption



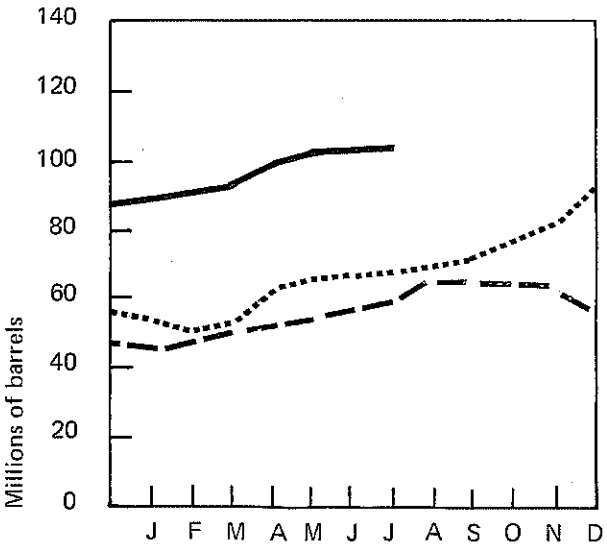
1972
1973
1974

	Stocks at End of Month	
	Coal In thousands of short tons	Oil In thousands of barrels
1972		
January	76,876	46,055
February	77,138	47,111
March	80,296	52,213
April	84,984	55,730
May	91,778	57,399
June	96,553	58,815
July	93,760	60,786
August	96,611	66,024
September	98,396	66,004
October	102,205	65,531
November	102,477	62,067
December	98,671	57,686
1973		
January	95,017	53,691
February	92,993	50,858
March	93,986	54,885
April	94,991	62,411
May	98,722	64,259
June	97,995	65,003
July	92,215	67,987
August	91,356	73,259
September	90,156	74,863
October	91,428	76,343
November	90,369	81,224
December	86,880	88,228
1974		
January	83,366	89,053
February	80,962	92,645
March	84,257	94,187
April	90,901	100,210
May	93,628	103,606
June	95,811	104,316
July	91,616	105,919

Coal Stocks



Oil Stocks



1972
1973
1974

Part 4 Resource Development

Oil and Gas Exploration

Drilling Activity

An average of 1,518 rotary rigs were engaged in oil and gas drilling operations in August. This is the highest level of drilling activity since December 1965 and a 24 percent increase over rotary rigs operating during August 1973. The utilization factor for these rigs is now running over 90 percent which is considered to be near the maximum feasible rate.

There were 380 more wells drilled in August than in July. This is a 42 percent increase over the number of wells drilled in August a year ago.

Although we are currently experiencing very high levels of drilling activity, future drilling capabilities are being constrained by limited drilling rig manufacturing capacity and the shortage of oil field tubular goods. The National Petroleum Council estimates that a total of 475 rigs will be manufactured in the U.S. from 1974 through 1976. However, 50 to 60 percent of these are

	Rotary Rigs in Operation	Wells Drilled				Total Footage of Wells Drilled
	Monthly average	Oil	Gas	Dry	Total	
1972						
January	1,147	807	281	851	1,939	9,441,238
February	1,071	965	350	955	2,270	12,381,669
March	1,034	1,210	394	889	2,493	12,406,433
April	1,002	923	355	788	2,066	9,902,253
May	1,005	920	332	816	2,068	10,218,488
June	1,049	1,042	395	903	2,340	11,009,513
July	1,104	833	335	795	1,963	9,212,931
August	1,130	946	410	924	2,280	11,334,867
September	1,152	1,065	468	1,009	2,542	11,634,026
October	1,165	792	539	919	2,250	10,944,312
November	1,186	860	535	975	2,370	12,360,912
December	1,241	985	536	1,290	2,811	14,190,138
1973						
January	1,219	758	406	899	2,063	10,972,665
February	1,126	777	487	765	2,029	10,655,936
March	1,049	953	504	909	2,366	12,317,756
April	993	699	489	777	1,965	10,433,987
May	1,046	749	407	647	1,803	9,622,110
June	1,118	767	432	795	1,994	10,814,600
July	1,155	912	504	840	2,256	10,995,939
August	1,222	724	456	739	1,919	9,632,819
September	1,266	854	690	940	2,484	12,075,280
October	1,334	790	554	958	2,302	11,693,672
November	1,390	822	606	865	2,293	11,823,350
December	1,405	1,087	827	1,208	3,122	15,529,582
1974						
January	1,372	763	577	803	2,143	10,391,797
February	1,355	901	600	816	2,317	12,160,308
March	1,367	936	638	1,003	2,577	12,844,135
April	1,381	947	700	945	2,592	13,349,007
May	1,412	957	520	870	2,347	11,459,595
June	1,432	1,238	586	982	2,806	12,976,388
July	1,480	1,008	461	884	2,353	11,801,777
August	1,518	1,210	555	968	2,733	12,409,855

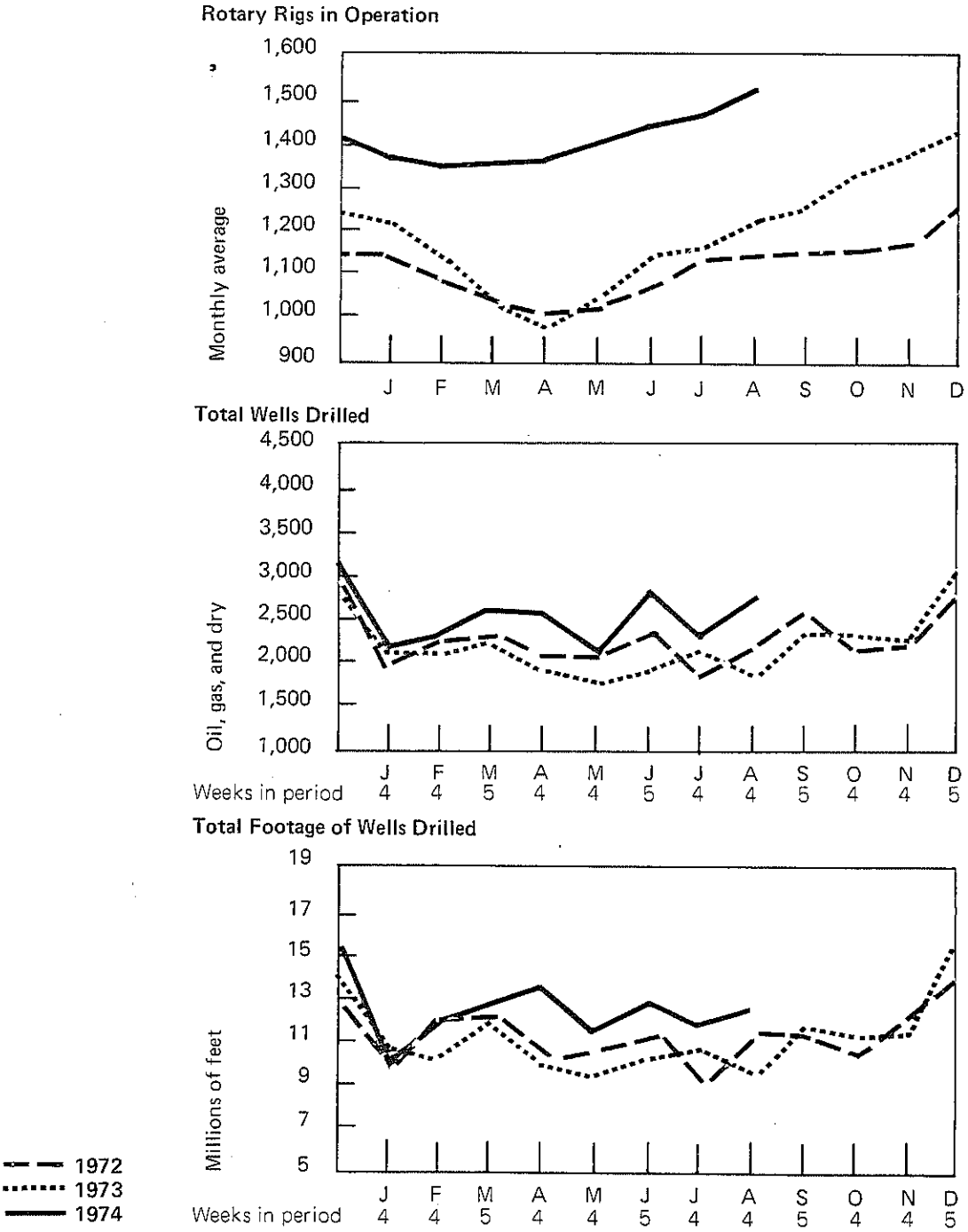
Sources: Rotary Rigs - Hughes Tool Company
Wells - American Petroleum Institute.

already earmarked for overseas markets. Taking into account losses due to obsolesence, only about 123 new rigs will be added to U.S. drilling capacity by the end of 1976.

FEA has encouraged the Nation's steel industry to increase output of steel related to energy production. Futhermore, in order to help ease the tight supply of tubular drilling materials, FEA has requested that major oil companies make available a share of their tubular stocks to smaller producers, who in turn drill about 80 percent of total U.S. wells.

Seismic Exploration Activity

The number of seismic crews engaged in prospecting for oil and gas during August decreased slightly to a level of 321 (287 land crews, 34 marine vessels). This represents a decrease of 13 crews from July, during which the highest number of crews had worked since



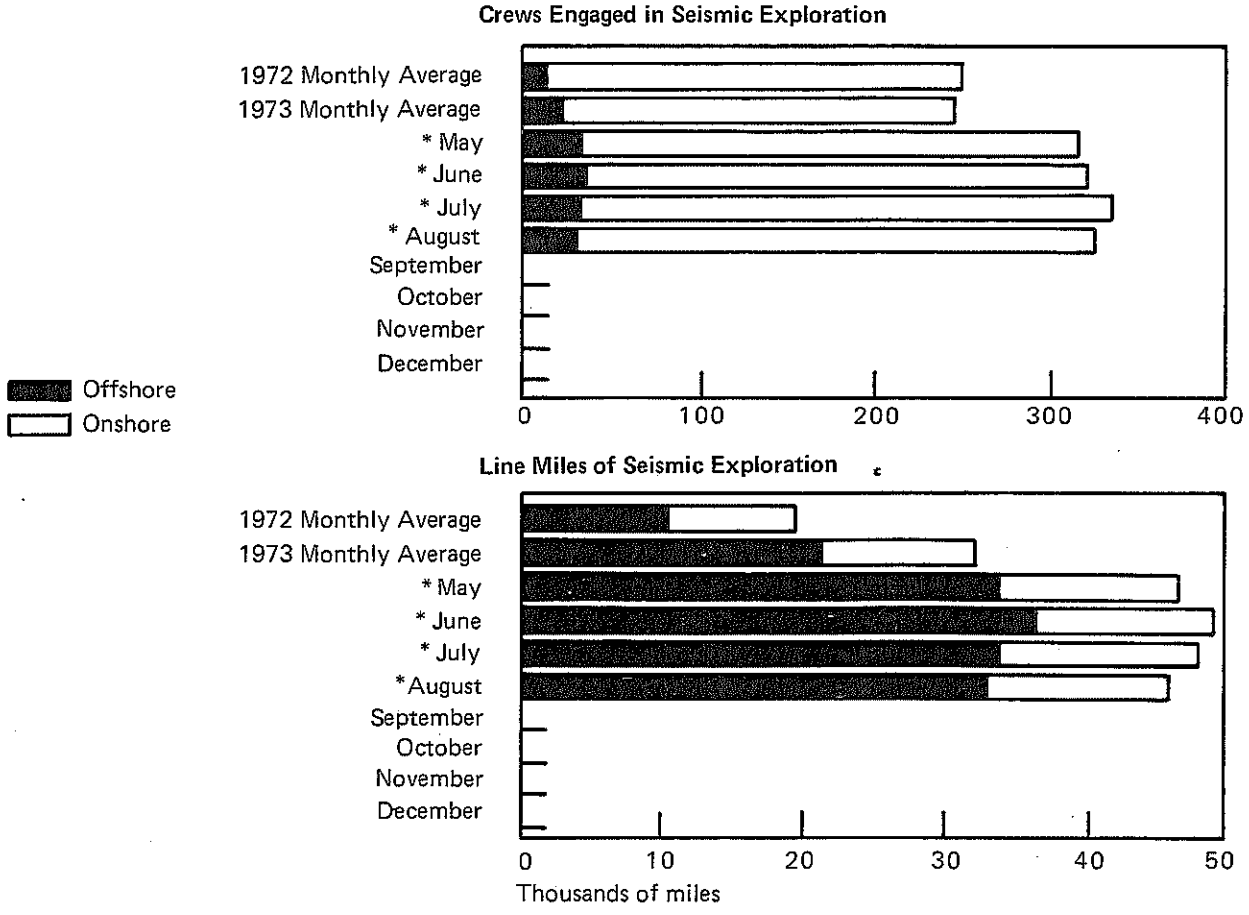
Oil and Gas Exploration *(Continued)*

1965. Total seismic crew activity this year is currently running 28 percent above the average for 1973. Taken separately, offshore exploration activity has shown an even more remarkable increase from levels experienced in 1972 and 1973. The number of marine vessels collecting seismic data in August was up 48 percent from the average number working in 1973, and compared with 1972, the increase was 183 percent.

The estimated number of miles surveyed by seismic crews in August was around 46,000 line miles which is 3 percent lower than estimates for the previous month, but more than 42 percent higher than the average monthly mileage for 1973.

These high levels of exploratory activity are attributed to incentives provided by higher oil and gas prices and by an increase in the number of tracts offered for petroleum exploration and development in Federal offshore lease sales.

	Crews Engaged in Seismic Exploration			Line Miles of Seismic Exploration		
	Off shore	Onshore	Total	Offshore	Onshore	Total
1972	12	239	251	10,306	9,333	19,639
1973	23	227	250	21,579	10,597	32,175
1974					Estimates	
May	35	278	313	33,320	13,066	46,386
June	38	279	317	36,176	13,113	49,289
July	35	299	334	33,320	14,053	47,373
August	34	287	321	32,368	13,489	45,857



* See Explanatory Note 4.

Source: Society of Exploration Geophysicists.

Part 5 Price

Motor Gasoline

A survey of retail dealers during August indicates the monthly average retail selling and purchasing prices of regular gasoline declined for the first time since the Arab embargo. The average dealer margin fell below 10 cents per gallon for the first time since March. Retailers of major brand gasoline continued to have higher prices and margins than retailers of independent brands. On a regional basis, Region 4 (Atlanta, Cincinnati) had the highest average price, whereas Region 10 (Los Angeles, San Diego) had the lowest average price.

A survey during August of 21 major oil companies corroborates the softening of retail gasoline prices. Four companies decreased prices, twelve did not change prices, and four increased prices. In comparison, during July eight companies increased prices.

The survey of dealer wagon (DTW) and jobber buying prices of gasoline sold by major companies to branded

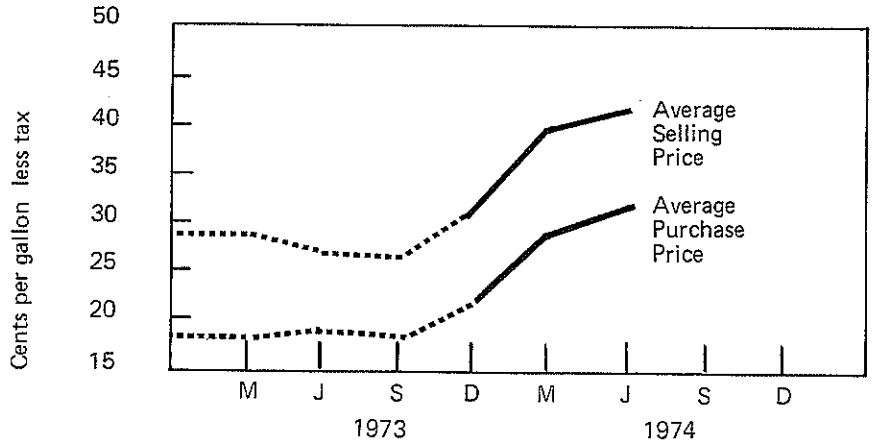
Regular at Retail Outlets

	Average Selling Price	Average Purchase Price	Average Dealer Margin
	Cents per gallon, less tax		
1973			
January	25.31	18.46	6.85
February	24.81	18.09	6.72
March	25.94	18.75	7.19
April	26.32	19.02	7.30
May	26.49	19.21	7.28
June	26.78	19.22	7.56
July	26.82	19.22	7.60
August	26.81	19.21	7.60
September	26.74	19.13	7.61
October	27.7	20.2	7.4
November	29.3	21.6	7.7
December	31.3	23.1	8.2
1974			
January	34.1	25.2	8.9
February	36.6	27.5	9.1
March	40.1	29.2	10.8
April	41.2	30.5	10.7
May	42.5	31.9	10.5
June	42.9	32.6	10.3
July	43.1	33.0	10.1
August	42.7	32.9	9.7

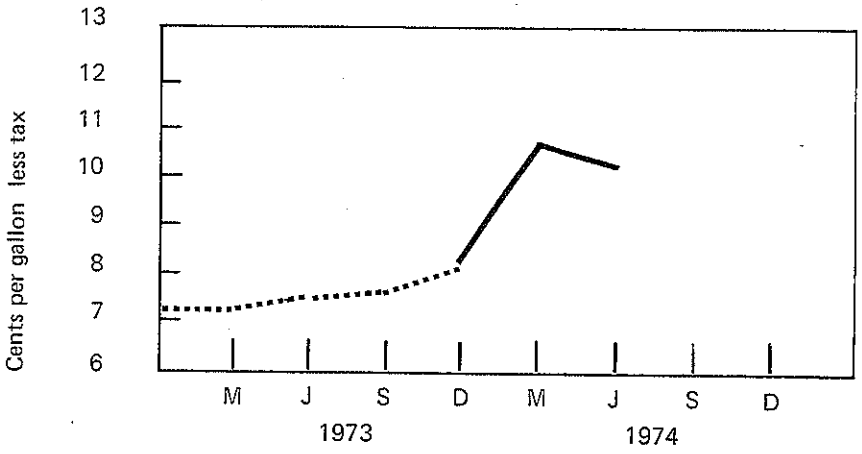
Sources: Platts Oilgram through September 1973.
FEA from October 1973 forward.

retail outlets indicates continued upward movement in wholesale buying and selling prices. The jobber margin remained about the same.

Average Retail Prices For Regular



Average Margins For Regular



1973
1974

Motor Gasoline *(Continued)*

Product at Retail Outlets	Average Selling Price		Average Margins	
	August 1974	July 1974	August 1974	July 1974
	Cents per gallon, less tax			
Premium Gasoline:				
Major	47.2	47.3	10.9	11.2
Independent	43.7	45.5	8.8	8.9
National Average	46.6	46.8	10.5	10.8
Regular Gasoline:				
Major	43.2	43.5	10.1	10.5
Independent	40.5	41.6	7.8	8.5
National Aveage	42.7	43.1	9.7	10.1
No Lead Gasoline:				
Major	45.0	45.3	10.4	10.7
Independent	42.2	43.2	8.6	9.1
National Average	44.6	45.0	10.2	10.5
Diesel Fuel:				
Major	39.0	38.4	8.0	8.3
Independent	35.2	35.4	5.8	5.5
National Average	37.7	37.5	7.3	7.5

Regular Gasoline at Retail Outlets

	Regions	Average Selling Price August 23, 1974	Average Margin August 23, 1974
		Cents per gallon, less tax	
1	Boston New York	43.3	9.1
2	Washington Baltimore Philadephia	43.4	10.6
3	Buffalo Cleveland Pittsburgh	43.2	8.9
4	Atlanta Cincinnati	44.1	10.3
5	Detroit Chicago	43.5	9.6
6	Milwaukee Minneapolis	43.2	9.7
7	Dallas Houston	41.0	10.0
8	Kansas City St. Louis	42.7	10.1
9	San Francisco Seattle	42.0	10.4
10	Los Angeles San Diego	41.0	8.8
National Average		42.7	9.7

Retail Gasoline Price Changes During August 1974

Company	Effective Date	Amount of Change Cents per gallon
Amerada Hess		No change
American Petrofina		No change
Ashland	August 2	-2.0
Atlantic Richfield		No change
B.P.	August 9	-2.0
Cities Service		No change
Champlin	August 4	4.1
Continental		No change
Exxon	August 10	1.0
Getty	August 22	-2.0
Gulf	August 31	.7
Kerr–McGee	August 1	-1.0
Mobil		No change
Phillips		No change
Shell	August 1	1.0
Standard Oil of California	August 1	1.0
Standard Oil of Indiana		No change
Standard Oil of Ohio		No change
Sun		No change
Texaco		No change
Union Oil of California		No change

Major Brand Regular Gasoline, August 1974

Marketing Region	Retail DTW Price	Change from Previous Month	Branded Jobber Price	Change from Previous Month	Regional Jobber Margin	Change from Previous Month
			Cents per gallon			
Northeast	34.02	0.10	29.74	–0.06	4.23	0.16
Mid Atlantic	33.32	0.31	29.44	0.10	3.88	0.21
Southeast	32.13	0.04	28.57	0.55	3.56	0.09
Central	33.44	0.22	29.55	0.18	3.89	0.04
Western	32.85	0.17	29.07	0.21	3.78	–0.04
Southwest	31.32	0.22	28.13	0.38	3.19	–0.16
Pacific	32.70	.60	28.57	0.55	3.63	0.05
Average	32.75	0.32	29.02	0.28	3.74	0.05

Heating Oil

Data on heating oil prices show that average prices of heating oil sold to all classes of customers declined during July from their levels during June. The price of heating oil for the important residential sector was down by 0.1 cents per gallon. The average purchase price for heating oil jobbers during July on the other hand was up by 0.6 cents per gallon over its level during June, resulting in a decline in heating oil jobber margins.

The August survey of 21 major oil companies indicates very little movement in heating oil prices during August. Only three companies increased heating oil prices, one company decreased its price, and the remaining companies did not change prices.

Average Prices for July 1974

	Average Purchase Price	Residential		Institutional and Utility		Industrial	
		Selling Price	Margin	Selling Price	Margin	Selling Price	Margin
		Cents per gallon					
New England	28.1	35.2	7.1	33.6	5.5	34.6	6.5
Mid Atlantic	28.2	35.5	7.3	33.3	5.1	34.3	6.1
Southeast	28.3	35.6	7.3	33.7	5.4	35.1	6.8
East North-Central	27.5	34.4	6.9	32.3	4.8	33.5	6.0
West North-Central	28.5	34.9	6.4	32.4	3.9	34.3	5.8
East South-Central	25.2	30.2	5.0	31.3	6.1	31.3	6.1
Mountain	28.2	36.1	7.9	35.9	7.7	36.3	8.1
West Coast	29.1	36.3	7.2	34.5	5.4	35.3	6.2
National Average	28.1	35.2	7.1	33.2	5.1	34.4	6.6

Price Changes During August 1974

Company	Effective Date	Amount of Change Cents per gallon
Amerda Hess	August 15	1.0
American Petrofina		No change
Ashland		No change
Atlantic Richfield		No change
B.P.		No change
Cities Service		No change
Champlin	August 4	4.8
Continental		No change
Exxon		No change
Getty		No change
Gulf	August 31	0.5
Kerr—McGee	August 1	-1.25
Mobil		No change
Phillips		No change
Shell		No change
Standard Oil of California		No change
Standard Oil of Indiana		No change
Standard Oil of Ohio		No change
Sun		No change
Texaco		No change
Union Oil of California		No change

Crude Oil

Crude oil data for June indicate that the generation of "new oil," and the resulting "released oil" changed slightly from what they were during May. The percentages of production accounted for by new oil and released oil during June was 15 percent and 9 percent, respectively, and during May they were 15 and 10 percent, respectively. Taking into account the 13 percent accounted for by stripper-well oil, the estimated total percentage of oil being sold at the free market price during June was 37 percent.

Based on preliminary reports, the estimated average price of domestic free market crude for August was about $10 per barrel.

Percentage of Domestic Production Sold at Controlled and Uncontrolled Prices

	Controlled	Uncontrolled		
	Old Oil	New Oil	Released	Stripper
1974				
January	60	17	10	13
February	62	15	10	13
March	60	16	11	13
April	60	16	11	13
May	62	15	10	13
June	63	15	9	13

Representative Posted Prices and Actual Cost Per Barrel of Foreign Crudes* and U.S. Crude, August 1974

Country	Posted Price	Actual Cost	Transportation Cost **	Estimated Landed Cost
Algeria	$16.21	$13.00	$0.53	$13.53
Canada	6.68	*** 11.88	.40	12.28
Iran	11.87	9.27	1.64	10.91
Iraq	11.67	7.23	1.66	8.89
Kuwait	11.54	7.12	1.50	8.62
Libya	15.76	9.89	.59	10.48
Nigeria	14.69	9.19	.66	9.25
Qatar	12.01	7.70	1.41	9.17
Saudi Arabia	11.65	7.10	1.46	8.56
U.A. Emirates	12.63	7.83	1.63	9.46
Venezuela	14.87	10.27	.31	10.58
U. S. Old Oil	5.25			
U. S. New Oil	† 10.00			

* All foreign crude prices, with the exception of Algeria, Canada, and Iran, represent equity oil.
** See Definitions.
*** Includes $5.20 Canadian Government Tax.
† Preliminary Estimates based on earlier reports.

Definitions

Bituminous Coal and Lignite Domestic Production
Estimated from the number of 50 ton hopper cars loaded at mines, based on the assumption that approximately 60 percent of the coal produced is transported by rail. This data is furnished by the Bureau of Mines as reported by the Association of American Railroads.

Bituminous Coal and Lignite Domestic Consumption
The Federal Power Commission surveys coal consumption at electric utilities monthly on a census basis (FPC Form 4). The Bureau of Mines surveys consumption at manufacturing plants and mines monthly on a sampling basis (BOM Forms 1365 and 1400). Coal consumption at electric utilities typically comprises 70 percent of the total domestic consumption.

Base Production Control Level
The total number of barrels of domestic crude petroleum produced from a particular property in the corresponding month of 1972.

Ceiling Price
The maximum permissible selling price for a particular grade of domestic crude petroleum in a particular field is the May 15, 1973, posted price plus $1.35 per barrel.

Controlled Crude Oil
This is domestically produced crude petroleum that is subject to the ceiling price for crude oil. For a particular property which is not a stripper-well lease, the volume of controlled oil equals the base production control level minus an amount of released oil equal to the new oil production from that property.

Crude Oil Domestic Production
The volume of crude oil flowing out of the ground. Domestic production is measured at the wellhead and includes lease condensate, which is a natural gas liquid recovered from lease separators or field facilities.

Crude Oil Imports
The monthly volume of crude oil imported which is reported by receiving refineries, including crude oil entering the U.S. through pipelines from Canada.

Crude Oil Runs to Stills
The volume of domestic and foreign crude oil piped to the distillation unit. Runs to stills are measured at the input to the distillation unit.

Crude Oil Stocks
These are the crudes held at refineries and in pipelines. This series does not include stocks held on leases (storage facilities adjacent to the wells), which historically total approximately 13 million barrels.

Dealer Tankwagon (DTW) Price
The price at which a retail dealer purchases gasoline from a distributor or a jobber.

Distillate Fuel Oil
The lighter fuel oils distilled off during the refining process. Included are products known as ASTM grades Nos. 1 and 2 heating oils, diesel fuels, and No. 4 fuel oil. The major uses of distillate fuel oils include heating, fuel for on-and off-highway diesel engines, and railroad diesel fuel. Minor quantitites of distillate fuel oils produced and/or held as stocks at natural gas processing plants are not included in this series.

Domestic Non controlled Crude Oil
That portion of domestic crude oil production including new, released, and stripper oil which may be sold at a price exceeding the ceiling price.

Electricity Production
As used in this publication, it is the production at electric utilities only. It does not include industrial electricity generation.

Foreign Equity Crude Oil
Crude oil which is produced and owned by the oil companies in a foreign country.

Foreign Posted Price
The reference price for crude oil upon which taxes and royalties are based.

Jet Fuel
This includes both naptha-type and kerosine-type fuels meeting standards for use in aircraft turbine engines. Most jet fuel is used in aircraft. Some is also used for other purposes, such as gas turbines for generating electricity.

Jobber
A petroleum distributor who purchases refined product from a refiner or terminal operator for the purpose of reselling to retail outlets and commercial accounts or for the purpose of retailing through his own retail outlets.

Jobber Margin
The difference between the price at which a jobber purchases refined product from a refiner or terminal operator and the price at which the jobber sells to retail outlets. This does not reflect margins obtained by jobbers through retail sales or commercial accounts.

Jobber Price
The price at which a petroleum jobber purchases refined product from a refiner or terminal operator.

Landed Cost
The cost of imported crude oil equal to actual cost of crude at point of origin plus transportation cost to the United States.

Line Miles of Seismic Exploration
The distance along the earth's surface that is covered by seismic traverses.

Motor Gasoline Production
Total production of motor gasoline by refineries, measured at refinery output. Relatively small quantities of motor gasoline are produced at natural gas processing plants, but these quantities are not included.

Motor Gasoline Stocks
This is the primary motor gasoline held by gasoline producers, but it does not include stocks at natural gas processing plants.

Natural Gas Imports
This is based on data collected by the Federal Power Commission from major interstate pipeline companies.

Natural Gas Liquids
These are obtained from natural gasoline plants, cycling plants, and fractionators after processing the natural gas. Included are ethane, liquified petroleum (LP) gases (propane, butane, and butane-propane mixtures), natural gasoline, plant condensate, and minor quantities of finished products such as gasoline, special naphthas, jet fuel, kerosine, and distillate fuel oil.

Natural Gas Marketed Production
These are the gross withdrawals from the ground, less gas used for repressuring and quantities vented and flared. Gas volumes are reported at a base pressure of 14.73 pounds per square inch absolute at 60°F. Data are from Bureau of Mines and are collected from reports received from the Interstate Oil Compact Commission provided by State agencies.

New Oil
The volume of domestic crude petroleum produced from a property in a specific month which exceeds the base production control level for that property.

Old Oil
Same as controlled crude oil.

Primary Stocks of Refined Products
Stocks held at refineries, bulk terminals, and pipelines. They do not include stocks held in secondary storage facilities, such as those held by jobbers, dealers, independent marketers, and consumers.

Refined Products Domestic Demand
A calculated value, computed as domestic production plus net imports (imports less exports), less the net increase in primary stocks. It, therefore, represents the total disappearance of refined products from primary supplies.

Refined Products Imports
Imports of motor gasoline, naphtha-type jet fuel, kerosine-type jet fuel, liquified petroleum gases, kerosine, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, and asphalt. Imports of bonded bunkers, jet fuel, distillate and residual fuel oils for onshore military use, and receipts from Puerto Rico, the Virgin Islands, and Guam are based on data reported to the Oil Import Administration of FEA. All other figures are compiled by Bureau of Mines from Department of Commerce data.

Released Oil
This is that portion of the base production control level for a property which is equal to the volume of new oil produced in that month and which may be sold above the ceiling price. The amount of released oil may not exceed the base production control level for that property.

Residual Fuel Oil
The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as ASTM grades Nos. 5 and 6 oil, heavy diesel oil, Navy Special Oil, Bunker C oil, and acid sludge and pitch used as refiner fuels. Residual fuel oil is used for the production of electric power, for heating, and for various industrial purposes.

Rotary Rig
Machine used for drilling wells that employs a rotating tube attached to a bit for boring holes through rock.

Stripper Well Lease
A property whose average daily production of crude petroleum and petroleum condensates, including natural gas liquids, per well did not exceed 10 barrels per day during the preceding calendar month.

Transportation Cost
Based on Worldscale = 100, which is a schedule of tanker rates used as a standard of reference for comparing nominal costs of transporting crude petroleum and petroleum products between loading and discharging ports around the world.

Well
Hole drilled for the purpose of finding or producing crude oil or natural gas or providing services related to the production of crude oil or natural gas. Wells are classified as oil wells, gas wells, dry holes, stratigraphic tests, or service wells. This is a standard definition of the American Petroleum Institute.

Explanatory Notes

1. Domestic production of energy includes the production of fossil fuels as well as the production of electricity by hydroelectric and nuclear powerplants. For fossil fuels, these series were derived by multiplying the physical units of the product by the approximate heat content of the fuel listed in the Units of Measure and Equivalencies. Data on hydroelectric and nuclear powerplant generation were obtained from FPC.

2. Data for Runs to Stills, Imports, and Stocks through April 1974 are from Bureau of Mines. From May 1974 forward, data for these categories are from the FEA *Weekly Petroleum Statistics Report.* Bureau of Mines data for Domestic Production are shown through June 1974. July and August Domestic Production data are from the American Petroleum Institute.

3. A break in the data series occurred in May 1974. Data shown for 1972 through April 1974 are from Bureau of Mines. FEA data are shown from May 1974 forward. It was during this month that FEA began publishing the *Weekly Petroleum Statistics Report* which presents volumetric data on domestic petroleum receipts and imports for all refiners and bulk terminal operators, as well as production and stock levels of each major petroleum product. The major difference between FEA and Bureau of Mines data occurs in the "stocks" series. Stock levels reported by FEA for the major petroleum products are higher than those reported by Bureau of Mines, because the FEA series includes stocks of independent terminal operators not counted by the Bureau of Mines.

4. Mileage estimates for 1974 were derived by multiplying the monthly seismic crew counts by the average number of miles traversed per crew month in 1973.

Units of Measure

Abbreviations

bbls/d	barrels per day
B ft^3	billions of cubic feet
kWh	kilowatt hour

Weight

1 metric ton	1.102 short tons

Conversion Factors for Crude Oil
average gravity

1 barrel (42 gallons)	*weighs*	0.136 metric tons (0.150 short tons)
1 metric ton	*contains*	7.33 barrels
1 short ton	*contains*	6.65 barrels

Approximate Heat Content of Various Fuels

Coal	
Bituminous	26.2 million Btu/metric ton
Lignite	14.77 million Btu/metric ton
Natural gas	1,032 Btu/cubic foot
Natural gas liquids	4.0 million Btu/barrel
Petroleum	
Crude oil	5.615 million Btu/barrel
Motor gasoline	5.253 million Btu/barrel
Distillate fuel oil	5.825 million Btu/barrel
Residual fuel oil	6.287 million Btu/barrel