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RELEASED

Domestic Crude Oil Pricing Policy And Related Production

B-178205

Federal Energy Administration

UNITED STATES
GENERAL ACCOUNTING OFFICE

AUG. 19, 1974

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ASSISTANT COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-178205

The Honorable Donald M. Fraser
House of Representatives

Dear Mr. Fraser:

As you requested on January 15, 1974, we reviewed the petroleum pricing policy over the past year as implemented by the Cost of Living Council and the Federal Energy Office. Currently, responsibility for the administration of petroleum pricing policy rests with the Federal Energy Administration, which was created by legislation, effective June 27, 1974. Before the creation of the Federal Energy Administration, the Federal Energy Office was responsible for petroleum pricing policies, such responsibility having been transferred from the Cost of Living Council on December 25, 1973.

In accordance with our understanding of your specific areas of interest, we obtained information on

--new oil production and costs,

--comparison of sales of new and old oil,

--the potential for withholding production and indicators that production is being withheld,

--justification for the December 1973 dollar increase in the price of old oil,

--the relationship of price increases to increased production costs, and

--the effects of the price increase.

We briefed you and your staff on the results of our work on June 11, 1974. On June 17, 1974, you requested additional information, and we expanded the report to include (1) oil production statistics for 1970-71 and (2) data on production decline rates.

Our work--performed principally at Federal agencies in Washington, D.C.--included a review of Federal records and interviews with officials of seven Federal agencies that we believed could provide useful information on petroleum pricing policy. We also interviewed individuals and representatives of consumer affairs groups, trade press, refinery associations, and State oil and gas regulatory agencies in Texas, Oklahoma, and Louisiana. In addition, information was obtained by questionnaire from seven major oil companies Exxon, Texaco, Atlantic Richfield, Gulf, Shell, Standard Oil of California, and Standard Oil of Indiana. One oil company, in agreeing to furnish data, requested that we not disclose its name. Consequently, we have not identified individual company data in our report.

The information presented at the June 11, 1974, briefing is summarized below and discussed in detail in the appendix containing background information on petroleum pricing and our responses to the questions you asked.

--New oil production costs are not separately maintained by the major oil companies, consequently they were unable to provide us this information.

--Rapid changes in petroleum pricing policies made it difficult to single out the effects of the policies on oil production.

--There are no indications that oil companies are withholding production of oil.

With regard to the justification for the December 1973 dollar increase in the price of old oil, we found that the increase was not tied to increased costs of production and that no detailed studies or analyses were made to justify the increase. Primary reasons for the increase as supported by our review of available documentation and discussions with a key official involved in deliberations over the increase were to (1) reduce the gap between domestic and the higher world oil prices and (2) stimulate increased production through secondary and tertiary recovery methods. The official confirmed that documentation in support of the decision was not complete and that, in particular, it would have been preferable to have had detailed analytic studies on costs, yields, and methods of secondary and tertiary recovery as well as overall cost information.

As you are aware, the Chairman, Senate Committee on Interior and Insular Affairs, and Congressman Charles A. Vanik requested information on oil production and pricing. As agreed with your office, we are providing them with copies of this report. S.01900

We have informally discussed the information in the appendix to this letter with FEA officials. We do not plan to distribute this report further unless you agree or publicly announce its contents.

Sincerely yours,

Phillip S. Hughes
Assistant Comptroller General

PETROLEUM PRICING POLICY AS IMPLEMENTED BY THE COST OF LIVING COUNCIL AND THE FEDERAL ENERGY OFFICE[1]

On January 15, 1974, Congressman Fraser requested that GAO review petroleum pricing policy over the last year as implemented by the Cost of Living Council (CLC) and the Federal Energy Office (FEO). Six questions were asked regarding petroleum pricing and related oil production. These questions and the GAO responses, along with certain background information, are set forth below.

BACKGROUND

In August 1973, to stimulate increased production through price incentive, CLC established a two-tier price structure for crude oil. The structure placed a ceiling price on domestically produced crude oil which equaled production in the same month of 1972, the base year. When production exceeds that of the base period, the so-called new oil and an equivalent amount of old oil could be sold at prices above the ceiling. CLC publicly stated its policy to continue monitoring the ceiling price of domestic crude oil and its intention to make periodic adjustments in the ceiling price toward the higher world price for crude oil. In August 1973 the average ceiling price for domestic crude oil was established at the May 15, 1973, posted price plus 35 cents a barrel, or a total of $4.25 a barrel. Important terms in the two-tier pricing system are old oil, new oil, release oil, and stripper oil, which are defined below.

--Old oil is the amount of oil produced on a given oil property in each month which does not exceed production in the same month of 1972--the base year. Old oil is subject to price controls.

--New oil is the amount of oil produced in each month on a given property which exceeds production in the same month of 1972 the base year. New oil is not subject to price controls.

[1] Responsibility for the administration of the petroleum pricing regulations was transferred from the CLC to the FEO on Dec. 26, 1973. On Apr. 30, 1974, the CLC statutory authority expired, but the agency was extended by Executive order to June 30, 1974. On June 27, 1974, legislation establishing the FEA--FEO's successor agency--became effective. Accordingly, we have used the abbreviation FEA in this report.

--Release oil is old oil that is released from price controls. For each barrel of new oil that is produced in a given month a like amount of the old oil production for the month is released from price controls.

--Stripper oil is oil from a well which produces 10 barrels or less a day. The Emergency Petroleum Allocation Act of 1973 exempted stripper oil from price controls.

In December 1973, CLC, in furtherance of its stated policy announced in August 1973 when the two-tier price system was established, increased the ceiling price for domestically produced old oil by a dollar a barrel from $4.25 to $5.25. On the same day that the price increase was granted, the President announced his decision to recommend to the Congress a windfall profits tax on excess profits of oil companies. Windfall profits tax legislation was introduced on April 30, 1974, and is currently being considered by the House Committee on Ways and Means.

HOW MUCH NEW OIL, IN FACT, HAS BEEN PRODUCED SINCE LAST AUGUST? AT WHAT COST? AT WHAT PRICE? AND BY WHICH OF THE MAJOR OIL COMPANIES?

The following table shows new oil production, the percentage of new oil production to total crude oil production, the average price of new oil production, and the average price for both old and new oil production of the seven major oil companies for the 7-month period from September 1973 to March 1974. In some cases, the oil companies were not responsive to GAO's request for production and average price data.

New Oil Production and Average Price
September 1973 to March 1974

Oil company	New oil: Production (thousands bbls.)	New oil: Percent of total production	New oil: Average price	Average price old and new (March 1974)
A	11,389	15.9	$10.05	$6.80
B	24,618	18.5	[a]10.06	[a]7.35
C	14,199	14.1	9.84	6.84
D (note b)	-	-	-	-
E	7,819	8.7	9.41	6.52
F	-	-	[a]9.49	[c]6.33
G	22,900	14.7	[a]10.11	6.88

[a]First quarter 1974.

[b]Company reported a production figure of 38 million barrels for new, release, and stripper oil from Sept. 1973 through Feb. 1974.

[c]Jan. and Feb. 1974.

Our questionnaire, sent to the oil companies, requested the average production costs of new oil, old oil, and stripper oil; but we received no cost information. Although not refusing to provide cost data, the companies maintained that average costs were either too difficult to calculate or not available. For example, five companies informed us that their accounting systems are not programed to break out these average costs. Another company stated that this information was very difficult to calculate because of the consideration given to allocated costs of operation and overhead.

HOW DO FIGURES FOR SALES OF OLD AND NEW OIL BY A SINGLE COMPANY COMPARE WITH PERFORMANCE BEFORE THE TWO-TIER PRICE SYSTEM WENT INTO EFFECT?

The two-tier price system became effective in September 1973. Previously, a new oil classification did not exist. We obtained statistics on total crude oil production from seven major oil companies for 1972, 1973, and the first quarter of 1974.

	Total crude oil production		
	1972	1973	1974 (1st quarter)
Company	(million barrels)		
A	138.3	124.0	31.0
B	219.4	227.9	56.5
C	180.9	174.7	42.3
D	[a]308.3	[a]298.2	[ab]45.8
E	174.4	160.5	37.7
F	239.3	236.5	56.7
G	296.8	280.2	65.3
Total	1,557.4	1,502.0	

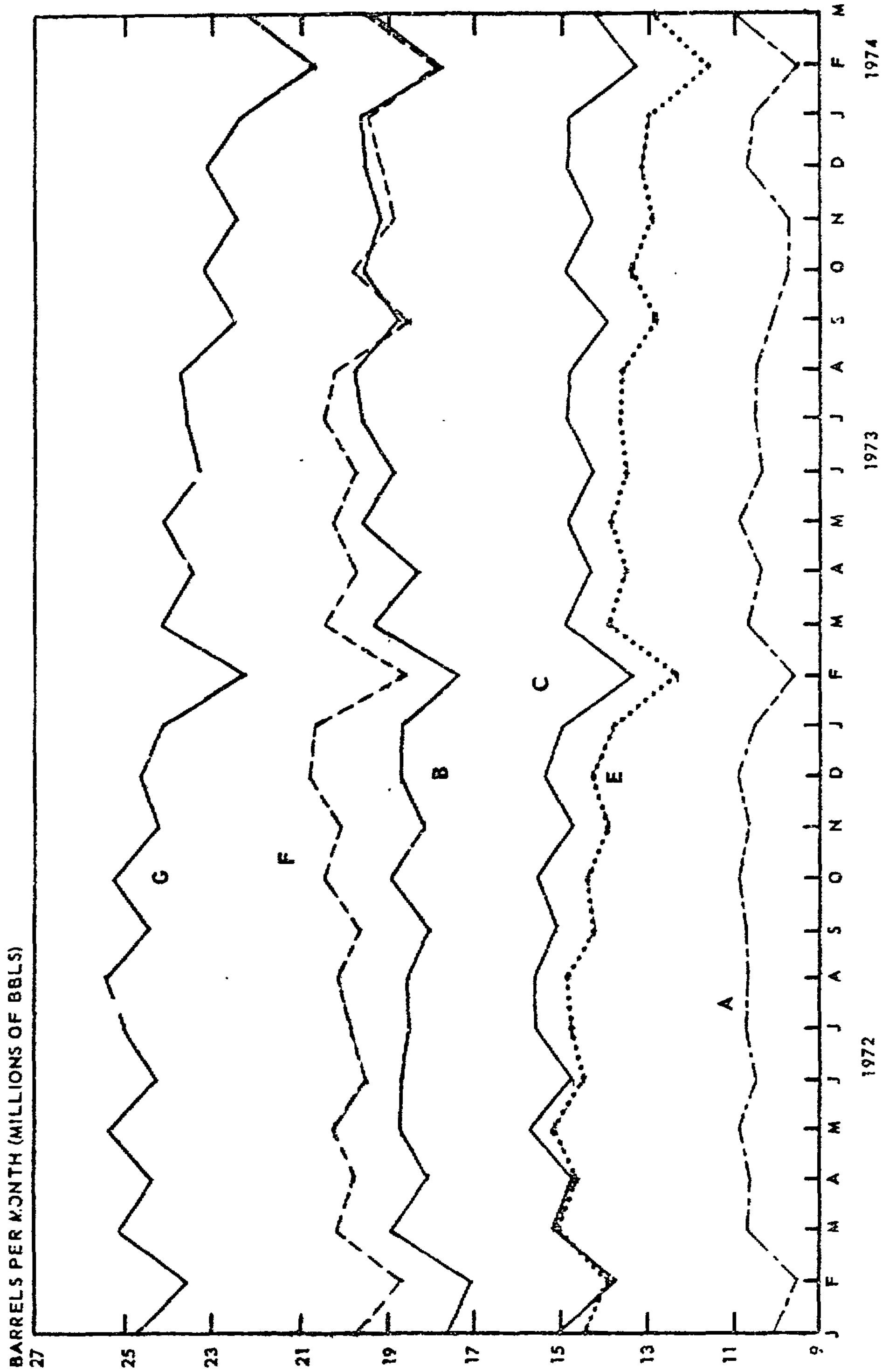
[a]GAO estimate based on reported average daily production.

[b]Jan. and Feb. 1974 only.

As shown above crude oil production for six of the seven companies was less in 1973 than 1972. Overall, the decrease was about 3.6 percent, compared with a 2.7-percent decrease in total U.S. production.

In addition to the yearly production figures, we charted monthly production for six companies which provided such data as shown on page 6. The graph shows noticeable monthly fluctuations and similar trends for the oil companies. None of the companies showed a steep decrease in crude oil production.

MONTHLY DOMESTIC PRODUCTION



ARE OIL COMPANIES HOLDING BACK SUPPLY IN ANTICIPATION OF HIGHER PRICES, WHILE MANIPULATING PRODUCTION SO THAT MORE OIL FELL UNDER THE CATEGORY OF "NEW" WHERE IT WOULD NOT BE SUBJECT TO CONTROLS?

We approached this question by (1) examining production statistics to determine if substantial declines were evident, (2) discussing production withholding with State oil and gas regulatory agencies, and (3) discussing ways in which production could be manipulated with the major oil companies and trade associations. Although we arrived at no conclusion on production withholding and manipulation, we were able to identify ways in which production could be manipulated to result in more oil being classified as new. Crude oil statistics and manipulation are discussed in more detail below.

Between 1961 and 1970, yearly crude oil production increased. In November 1970, production peaked at slightly over 10 million barrels a day, as shown in the graph on page 8. Since 1970, despite month-to-month upward fluctuation, production has slowly declined reaching a low of 8.9 million barrels a day in January 1974. In April 1974 production was 9 million barrels a day which represented a decline of about 10 percent from the November 1970 high.

The bar chart on page 9 shows the annual percentage change in average daily crude oil production from 1961 to the first 4 months of 1974. Between 1961 and 1970, the greatest percentage increases in production occurred in 1966 and 1967 when production rose by over 6 percent in each year. During this 10-year period, production increased at an average annual rate of 3.2 percent. Since 1970, average daily production has declined by 6.5 percent, an average annual rate of decline of 1.95 percent. Although production in 1973 dropped by 2.7 percent from that of 1972, through the first 4 months of 1974, production decreased by only 1.9 percent.

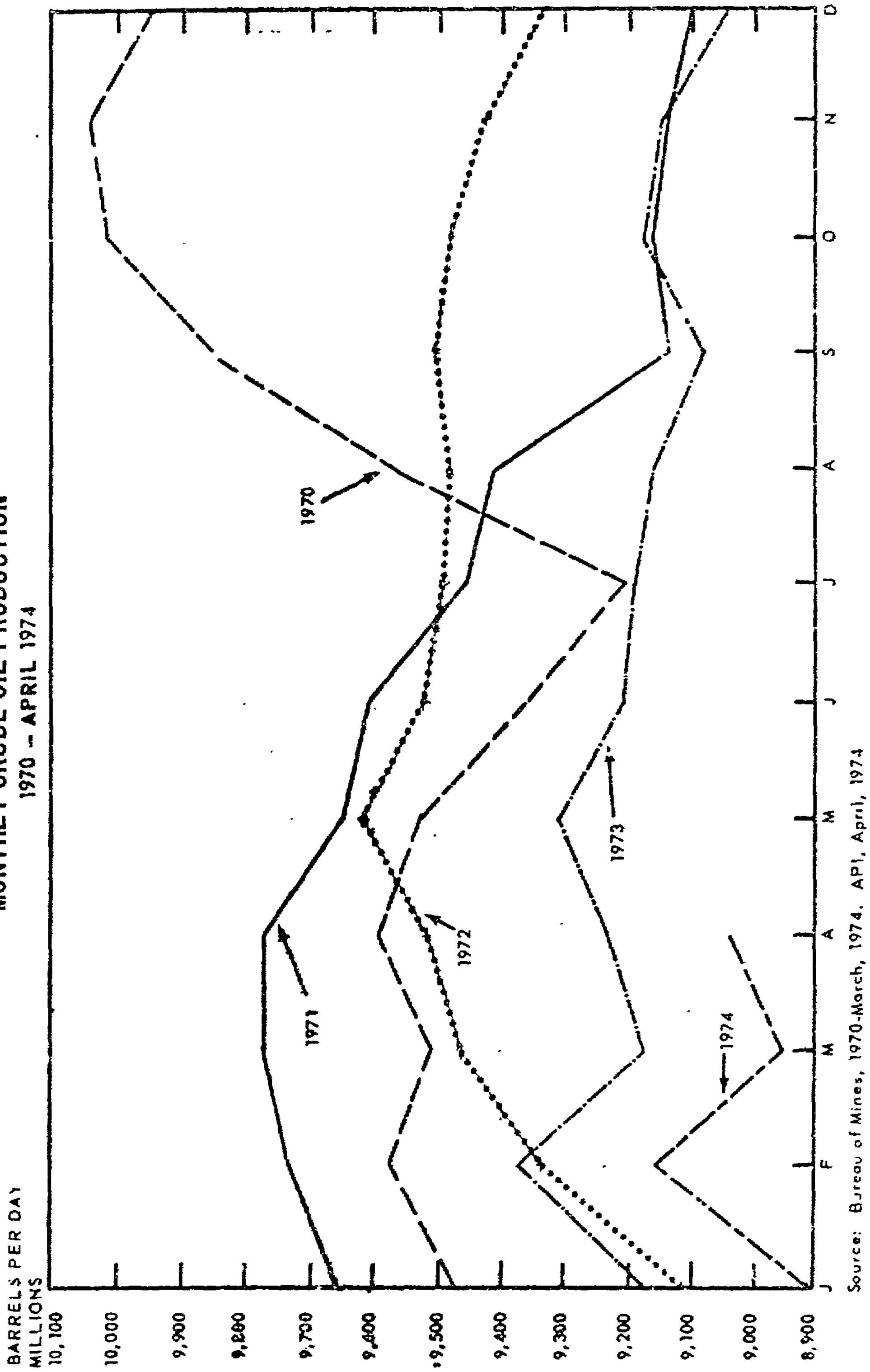
Year	Average daily production	Percent of change from preceding year	Percent of change from 1970
1970	9,637,000	-	-
1971	9,463,000	-1.8	-1.8
1972	9,441,000	- .2	-2.0
1973	9,188,000	-2.7	-4.7
1974 (4 mos.)	9,013,000	-1.9	-6.5

The decline in production between 1973 and 1974 would not in itself indicate that production was being withheld. Since 1970, average daily production has declined. Moreover, the rate of decline between 1973 and 1974 appeared to be decreasing. Industry and trade representatives and officials of State regulatory agencies cited the following disincentives for withholding production.

--New oil production selling at uncontrolled prices.

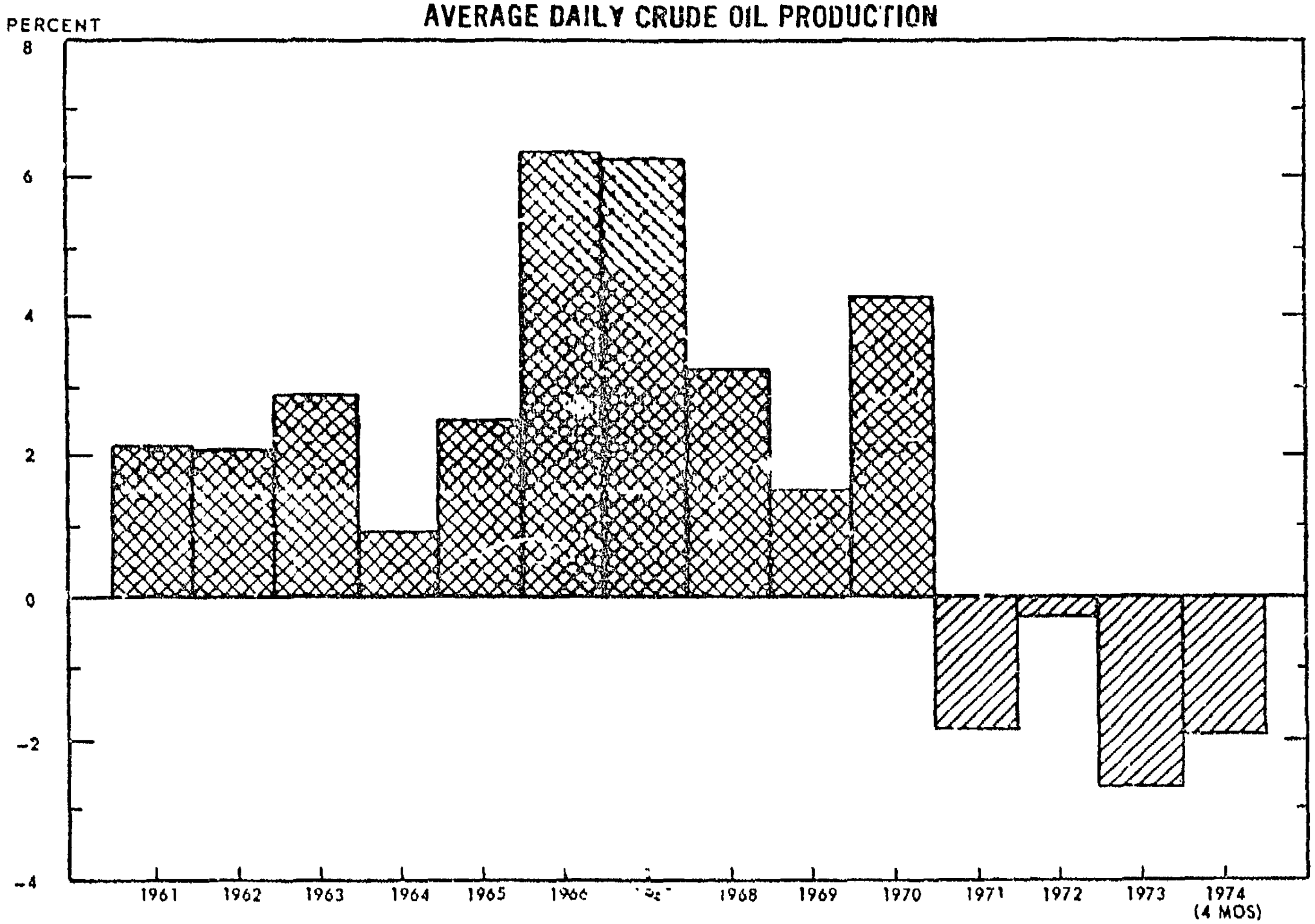
--The practice of common drilling in fields would make it disadvantageous for one producer to withhold production since other producers could increase their production at his expense.

MONTHLY CRUDE OIL PRODUCTION
1970 – APRIL 1974



Source: Bureau of Mines, 1970-March, 1974. API, April, 1974

ANNUAL PERCENTAGE CHANGE IN
AVERAGE DAILY CRUDE OIL PRODUCTION



On the other hand, ways were suggested for manipulating production to result in more oil being classified as new oil. No specific evidence was provided to support that withholding was taking place.

One major oil company responded by commenting on three ways in which oil production could be classified as new oil. These ways were categorized as legal, illegal, and questionable. Although the company chose to comment on the illegal and questionable means, it emphatically stated that it had used only the legal means and would continue to use the legal means to have oil classified as new oil.

The legal means involves increasing production through stimulation techniques. Any increase in production over the base period results in the additional production being classed as new oil. The stimulation techniques referred to include secondary or tertiary recovery, infield drilling, and reworking of existing wells.

The illegal means of manipulating production relates to falsifying producer certifications. FEA regulations require each producer of domestic crude oil to certify in writing to the purchaser the amount of new oil produced. According to the oil company, in many instances, especially when there are multiple buyers in the same field or there have been changes in marketing arrangements since the base period, it is not possible for the buyers to determine the volume of new oil except by reliance on seller certifications. Consequently, the oil company said, there is incentive and opportunity for improper certifications by producer-sellers.

The questionable means of manipulating production would involve selective ownership changes which in turn would allow redefinition of what qualifies as old and new oil. FEA regulations require that new oil determinations be made on the basis of an individual ownership right to produce rather than for fields, wells, or leases. Multiple ownership of leases and wells in varying percentages has created a huge number of ownership interests. There is the potential that changes in ownership interests through sales, purchases, or mergers could affect base volume determinations which in turn could affect the volume of production from a lease or well classified as new oil.

We did not evaluate the merits of the illegal or questionable means advanced. We did however, discuss these matters with the FEA staff. They informed us that they were not aware of any cases involving the use of these methods for getting more oil classified as new oil. They monitor the figures reported as new oil and are alert to any unusual changes in the amounts reported. In addition, they pointed out that the regulations provide for civil and criminal penalties for violating the regulations.

Another way in which more oil can be classified as new oil is to manipulate production from marginal wells so that they fall under the classification of stripper wells. A stripper well is defined by law as a well which has averaged, over the past year, production of 10 barrels or less a day. While no evidence was advanced to show that this was occurring, oil companies or individual owners would have to restrict production to 10 barrels or less for a full year to obtain a stripper well classification. Further, in reaching a decision to restrict production, oil companies or individual owners would have to make assumptions regarding (1) how long the two-tier price structure for oil will be maintained and (2) the likely market price for crude oil. Also, there is a potential that restrictions on production could affect recovery over the long term due to oil reservoir damage. Assuming that the price of new oil remains at $10 a barrel--the price estimated by FEA in its May 31, 1974, Petroleum Industry Monitoring System Monthly Petroleum Report--and the two-tier price system is continued, we estimate that over a 2-year period, for wells producing 14.3 barrels or less a day, there is an economic incentive for oil companies or individual owners to restrict production to obtain a stripper well classification.

We derived the break-even point of 14.3 barrels a day by considering the profit to be gained from restricting production to 10 barrels a day. This yields future sales at the "new" oil price, but results in a loss of earnings due to restricting production. A decision to restrict production depends on the present worth[1] of the increased revenues at the "new" price less the revenues lost from not producing in excess of 10 barrels a day.

WHAT ARE THE DETAILS OF THE INDEPENDENT OIL-ENGINEERING CONSULTANTS' REPORTS ON WHICH THE DECEMBER DOLLAR INCREASE IN CONTROLLED CRUDE WAS BASED? WERE THESE REPORTS IN FACT INDEPENDENT? OR DID THEY MERELY REFLECT INDUSTRY DATA? WERE THEY SIGNIFICANTLY THOROUGH FOR THE PURPOSE AT HAND?

We approached this question by requesting officials of CLC to provide us with all data in support of the decision for the dollar increase. We were provided with four memorandums and two issue papers prepared before or on December 19, 1973--the date of the dollar increase--which the Director, CLC stated had a direct bearing on the decision. These papers deal with such subjects as the longrun supply price for petroleum, old oil ceiling prices, petroleum supply and demand elasticities, crude oil, and the pricing of domestic crude oil. The documentation, for the most part, was informal and unofficial. Five of the papers were not addressed, two were undated, and one had the date written in.

By way of background, the Director of CLC has stated that the decision to raise the ceiling price for old oil was made by the Secretary of the Treasury as Chairman of CLC after consulting with several administration officials including, in addition to the Director of CLC, the Administrator of FEA and the Chairman of the Council of Economic Advisors.

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[1]In making our calculations, we used a discount rate of 10 percent.

According to the Director, the critical discussion preceding the decision took place in the Office of the Secretary of the Treasury at 7:00 p.m. on December 18, 1973, where the longrun supply price for petroleum and appropriate tax policies, including an excess profits tax on the oil companies, were discussed.

Before discussing the details of the data in support of the increase, it would be helpful to outline a few important points.

--As far as we can determine, only one outside consultant was used in support of the decision to raise the price of oil by one dollar.

--The decision was made by principal officials of the Department of the Treasury, CLC, Council of Economic Advisors, and FEA.

--In addition to the consultant's report, data in support of the decision came from CLC, FEA and Treasury staff papers prepared for the occasion.

We were advised by FEA officials on August 16, 1974, that another important point was that the decision was made with the knowledge that a windfall profits tax was being proposed by the President. FEA informed us that the decision was made in contemplation of this proposal and the announcement of the price increase was intentionally made on the same day to emphasize the relationship between these two policies.

Consultant's report

The consultant's report was in the form of an issue paper entitled "Crude Oil" and dated December 18, 1973. The consultant was Stanford Research Institute (SRI). We were informed by the Executive Assistant to the Director, CLC, that CLC had an open contract with SRI which permitted certain individuals of the CLC staff to make requests for studies and analyses. Our understanding is that the request for the analysis of the issue "What should be the near term pricing policy for domestic crude oil" was made orally by a CLC official late in November 1973.

Copy microfilmed was of poor quality.

We discussed this contract with officials of SRI in Menlo Park, California, and Arlington, Va. We were told that in 1971 the Price Commission, CLC's predecessor agency, entered into a general support contract with SRI which provided for three general areas of assistance--quick response, long-range studies, and input and data on specific questions. The issue paper prepared on pricing was under the quick response category. One official pointed out that SRI had the right to refuse any request that it considered outside its area of competence. Since 1971, the official advised us that SRI has prepared some 400 issue papers for the Price Commission and CLC.

In its paper, SRI listed a number of reasons for considering the need for, and the effects of, continuing or adjusting the price of domestically produced old oil and discussed in detail a number of the reasons. Also discussed were alternative means of addressing the price adjustment problem--their implications, advantages, and disadvantages.

Four of the reasons which SRI described as desirable effects of an increase were to (1) reduce demand for crude oil or its products, (2) increase supply by providing an incentive to encourage additional production, exploration, and development, (3) discourage exports by pricing nearer the world price, and (4) provide oil producers a more equitable share of petroleum profits.

Overall, SRI concluded that, although the objective of reducing demand would be supported by increases in the ceiling price, it was not clear that such increases were sufficient or even necessary to accomplish this end. Other conclusions were.

--Though it would be reasonable to allow some increases in the light of earlier commitments to move toward domestic-foreign crude price parity, it was likely that more modest allowances would suffice and avoid windfalls, excess profits, and other attendant problems.

--It was by no means certain that substantially higher prices would stimulate more new production in the short and long run; equipment shortages would in any case, limit short-run potential.

SRI stated that a more direct and acceptable solution would be to increase prices through a public mechanism, such as taxation and pricing rules.

The Arlington, Va., SRI official stated that SRI's paper was prepared independently from industry influence but that it did heavily reflect input from CLC. He stated also that, during the period in which the paper was prepared, certain SRI staff members were physically located onsite at CLC offices in Washington, D.C., and that they worked with the CLC staff in preparing the paper. He pointed out, however, that this was normal under their contractual relationship. He considered the paper that was prepared a draft and incomplete and informed us that SRI was not given time to obtain comments and refine the issues as it normally would. The apparent reason for this was the pressure within CLC being generated to move rapidly toward a decision on the price increase.

Other documentation in support of the increase

The other documentation, having a direct bearing on the decision to raise the price of crude oil by one dollar included:

--Undated memorandum prepared by the Energy Division, Cost of Living Council, and sent to the Director, Cost of Living Council in December 1973 on the longrun supply price for petroleum.

--Issue Paper dated December 7, 1973, entitled "Old Oil Ceiling Prices," prepared by the Energy Division, Cost of Living Council.

--Memorandum dated December 18, 1973, prepared by the Energy Division, Cost of Living Council, on petroleum supply and demand elasticities.

--Administratively Confidential Memorandum on "Notes on the 9:00 a.m. Meeting, Tuesday, December 18, 1973, Concerning the Price of Domestic Crude Oil," prepared by General Counsel, Cost of Living Council.

--Memorandum dated December 19, 1973, on "The Pricing of Domestic Crude Oil," prepared by the Director, Cost of Living Council, for the Secretary of the Treasury.

Although the issues of the need for an increase and the specific amount of an increase were explored, we were provided with no detailed studies to support either issue.

Reasons for the dollar increase

There were two primary reasons for the price increase. One reason was that CLC was acting to implement its announced policy to continue monitoring the ceiling price of domestic crude oil and its intention to make periodic adjustments in the ceiling price toward the higher world prices for crude oil. The second reason was that CLC wanted to stimulate increased production through secondary and tertiary recovery methods.

We discussed the supporting documentation with the Deputy Assistant Administrator, Policy, Planning and Regulation, FEA, who requested the SRI study and was the key individual in putting together the support for the decision. He confirmed the reasons for the price increase, stressed the haste with which the documentation was prepared in view of internally generated pressure, acknowledged that the SRI paper was a joint effort, and pointed out that the documentation presented in support of the decision was not complete. He stated that it would have been preferable to have had detailed analytic studies on the costs, yields, and methods of secondary and tertiary recovery as well as overall cost information. He said, nevertheless, that, in his opinion, the decision was sound but the ceiling price should have been $5.00 rather than $5.25. He offered no evidence to support the $5.00 ceiling price except that he felt it was adequate to encourage increased exploration and drilling. The documentation furnished us indicated that several ceiling prices were advanced by principal officials involved in the decisionmaking process, ranging up to $12.00 a barrel.

DO PAST PRICE INCREASES ACCURATELY REFLECT INCREASED COSTS OF PRODUCTION?

The December 1973 dollar increase in the price of crude oil was not based on any analysis of costs of production. The December 7, 1973, issue paper on "Old Oil Ceiling Prices" prepared by the Energy Division, CLC, in addressing the issue "If crude price ceilings are raised, by what amount should the price be increased?" contained the following statement.

> "As no additional costs are involved and a ceiling increase in the price of crude would be based on other factors such as world market prices and the desire to increase domestic prices of products to deter demand, this is an arbitrary decision.'

HAS THE PRICE INCREASE ACHIEVED ITS OBJECTIVE--TO STIMULATE PRODUCTION--OR HAS IT MERELY ADDED TO OIL INDUSTRY PROFITS?

The general opinion of the major oil companies is that the price increase will not have an immediate impact on production. There seems to be no question that industry profits have been increased as a result of the increase in the price of old oil.

Effects of price increase on oil production

It was difficult to single out the effects of the various Federal actions--two-tier price structure, stripper well exemption, and dollar increase--on crude oil production. We obtained information, however, from the seven major oil companies on the effect that the dollar increase had on their production activity, particularly secondary and tertiary activity. In addition, we developed some information which indicates that the increase achieved some favorable results.

Secondary and tertiary activities

Overall, on the basis of the oil companies responses to our questionnaire, a significant amount of their domestic crude production has resulted from secondary recovery techniques. On the other hand, production from tertiary recovery was reported as insignificant.

Generally, the major oil companies stated that the increase in the price of crude oil stimulated additional secondary and tertiary activity. We asked the major oil companies for their secondary and tertiary treatment costs, and in essence the replies were that this information was not available. Reasons given included accounting systems not differentiating between the costs of secondary and tertiary treatment and the lack of tertiary treatment activity. We were, however, able to obtain data from another source which related price to production. A background survey of major oil companies made by the Energy Policy

Project of the Ford Foundation immediately preceding the major increases in world oil prices, compared the amount of oil recovery using secondary and tertiary recovery methods to various wellhead prices of crude oil. This data indicates the potential for increased production from improved recovery techniques at various prices, which is shown on the graph on page 17.

As shown on the graph, the present rate of oil recovery using existing secondary and tertiary technology is estimated at 31.4 percent. Using this as a starting point, we plotted three lines representing industry's response. The left-hand line represents the midrange estimates for oil recovery by 1978 with no improvement in technology. The middle line shows midrange estimates for oil recovery with improvements in technology to 1985. The right-hand line represents the highest estimate submitted for oil recovery through secondary and tertiary techniques to 1985. Applying the maximum projections at $8 a barrel to the estimates of oil in place[1] as of January 1971 (latest data available), by the National Petroleum Council (NPC), it becomes apparent that secondary and tertiary techniques offer potential for increased oil recovery. This is shown in the lower right-hand portion of the graph.

Other production activity

From available statistical data on drilling activity, discussions with officials of trade associations and State regulatory agencies, and information received from the seven major oil companies, we obtained the following indications that the price increase achieved some favorable results.

--In 1974 average drilling rigs are estimated to be 1,390, up 16 percent from 1973. Not since 1965 have there been an average of over 1,300 rigs drilling. This is shown on the graph on page 18.

--In Texas, new drilling applications have increased 49 percent between the first quarter of 1973 and the first quarter of 1974.

--The President of the Oklahoma Independent Petroleum Association informed us that at least 25 percent of the operating stripper wells in Oklahoma would have been plugged in the last 6 months if it were not for the price increase. He stated that before the price increase, it was more profitable for stripper well operators to pull the pipe and casing and sell it or use it for new drilling operations.

--A major oil company informed us that a direct result of the economic incentive provided by the two-tier system and the dollar increase was that, through April 1974, 344 previously shut-in wells had been returned to production with a gain of 2,126 barrels of oil a day. Also, the company is reviewing all of its shut-in wells to determine whether they can be returned to production.

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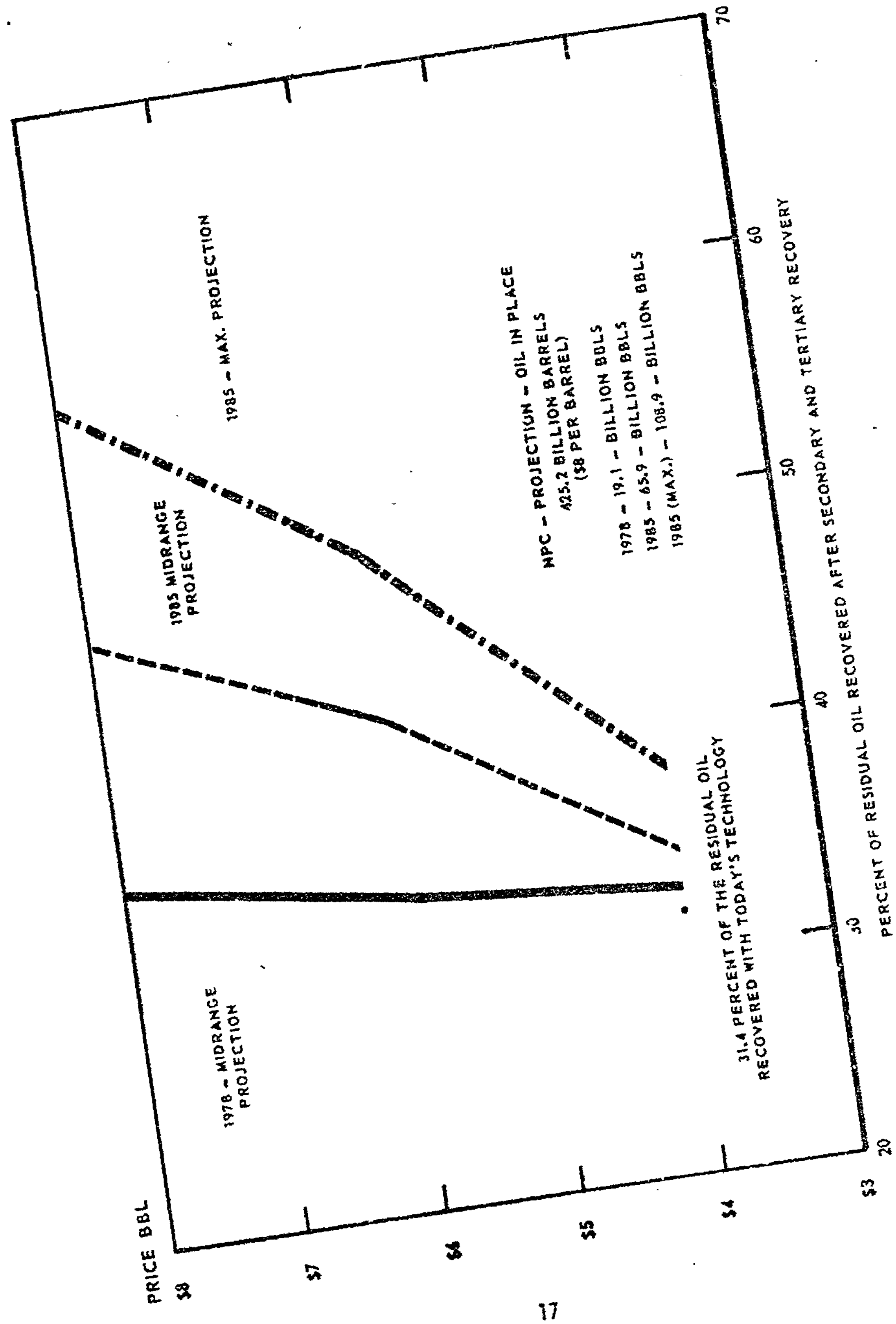
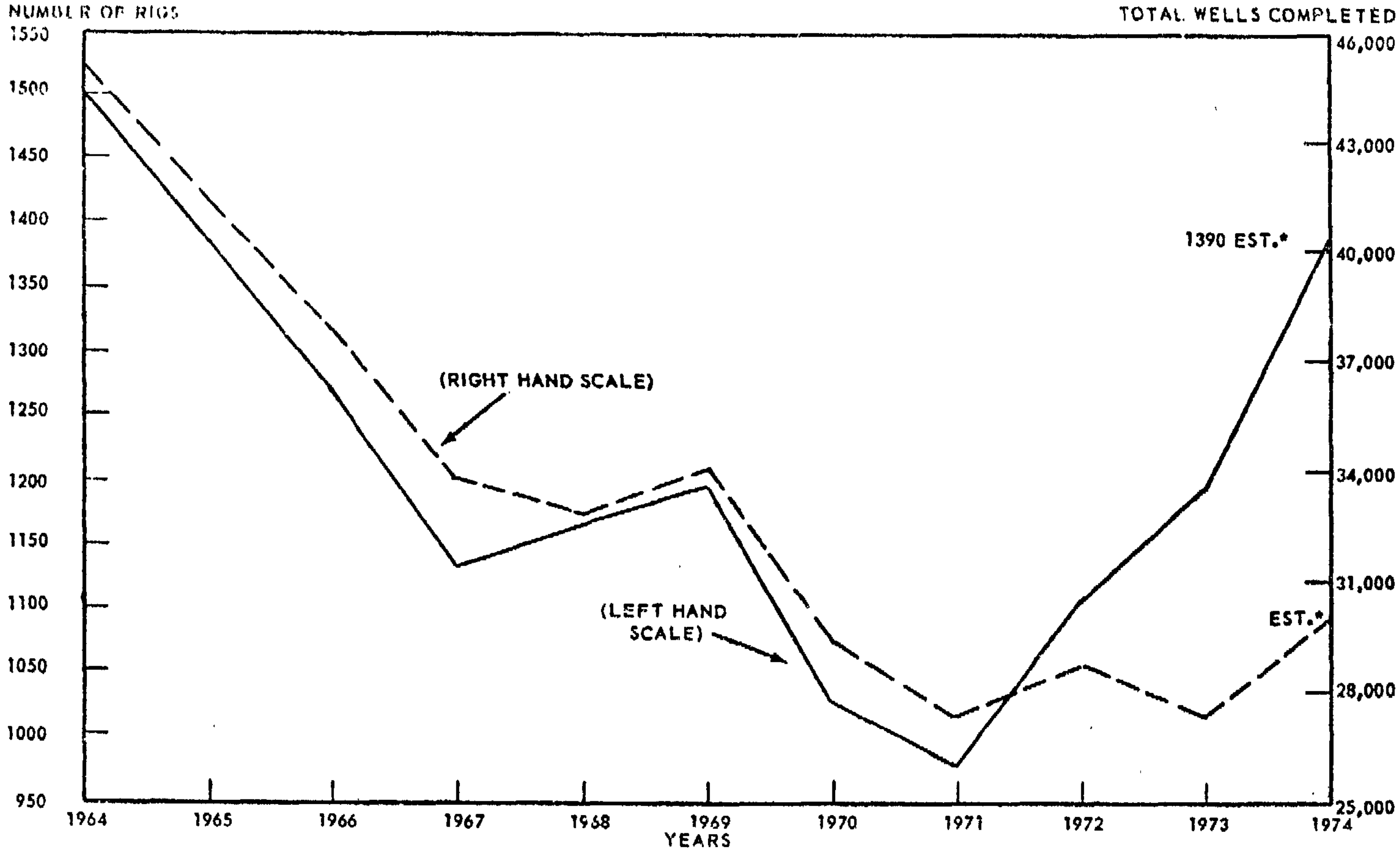
[1]The estimated number of barrels of crude oil in known reservoirs prior to production.


PRICE BBL
$8
$7
$6
$5
$4
$3
20
30
40
50
60
70
PERCENT OF RESIDUAL OIL RECOVERED AFTER SECONDARY AND TERTIARY RECOVERY
1985 – MAX. PROJECTION
1985 MIDRANGE PROJECTION
1978 – MIDRANGE PROJECTION
31.4 PERCENT OF THE RESIDUAL OIL RECOVERED WITH TODAY'S TECHNOLOGY
NPC – PROJECTION – OIL IN PLACE
425.2 BILLION BARRELS
($8 PER BARREL)
1978 – 19.1 – BILLION BBLS
1985 – 65.9 – BILLION BBLS
1985 (MAX.) – 108.9 – BILLION BBLS

ROTARY RIGS DRILLING HOLE IN U.S.



LEFT HAND SCALE – Source: Hughes Tool Company
RIGHT HAND SCALE – Source: 1964-1973 – Independent Petroleum Association of America
1974 – American Petroleum Institute
* GAO Estimate

--Another major oil company informed us that estimates for 1974 showed the company would experience a 20-percent decline in oil production, but as a result of the dollar increase this estimate has been revised to 7 percent.

Effects of price increase on industry profits

CLC did not make any estimates of the impact that the dollar increase would have on industry profits, although some of the documentation prepared in support of the increase acknowledged that the increase would add to industry profits.

The December 7, 1973, issue paper on "Old Oil Ceiling Prices," prepared by the Energy Division of CLC addressed the question of industry profits. One of the arguments listed in the paper against a price increase was that a substantial increase in crude oil prices which is not based on cost increases would mean increased profits for oil producers. In addition, the paper discussed four options dealing with the requirements or restraints that should be considered on the profits associated with the increase. These options were (1) allow producers to reap the additional profits, (2) require that only a portion of the additional costs be passed through by refiners to consumers, (3) require that profits in whole or in part be used for exploration, secondary oil recovery, additional refinery capacity, or research and development of other energy sources, and (4) recoup profits by an excess profits tax or decreased depletion allowance. The Director, CLC, stated that an excess profits tax was discussed in the December 18, 1973, meeting of principal Federal agency officials the day before the price increase was announced.

The SRI in its issue paper prepared at the request of CLC on oil pricing policy also addressed the question of profits. The SRI listed as an impact of a price increase the creation of sizable windfall profits to oil producers. It commented that these profits would be hard to justify unless some means were found to recapture them through either taxes or a requirement that the profits be used for exploration and development.

On August 16, 1974, FEA officials informed us that the President's windfall profits tax proposal was specifically discussed at the December 18 meeting. They advised that this proposal was deemed important since it would have the effect of depriving producers of excess profits, thus mitigating possible adverse consequences of gradual increases in the ceiling price of old oil. Thus, they stated CLC was sensitive to the possible excess profits problem and was aware that efforts were underway to deal with the problem.