

Rules

**A Report of
The Joint Committee on Public Domain**

CRUDE OIL EXCHANGES



"The Other Currency"

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John V. Briggs
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Henry A. Waxman**

Senate:

**Ralph C. Dills
Joseph M. Kennick
James R. Mills**

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BY

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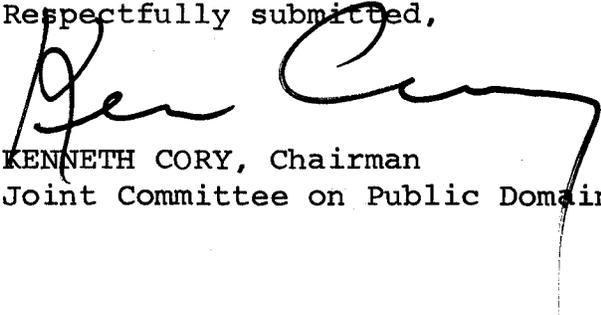
The Honorable President of the Senate
The Honorable Speaker of the Assembly
The Honorable Members of the Senate and the
Assembly of the Legislature of California

Dear Members:

As Chairman of the Joint Committee on Public Domain, I am pleased to submit the second in a series of fact-finding reports by the Joint Committee on Public Domain, entitled, "Crude Oil Exchanges - The Other Currency."

This report is the synthesis of thousands of documents on the exchange of crude oil among the major oil companies and clearly documents the existence of another medium of exchange in the petroleum industry.

Respectfully submitted,


KENNETH CORY, Chairman
Joint Committee on Public Domain

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INTRODUCTION

Major oil companies owe the State of California more than \$100 million dollars and the State is doing nothing to retrieve that money.

This report discusses how the crude oil exchange market among the major integrated oil companies provides evidence that California is being short-changed millions for its oil. The report points out how the major oil companies in the State, particularly Texaco, Exxon, Union, Mobil, Shell, Arco and Standard Oil Company of California, are using exchanges to hide prices they pay each other for crude oil, prices far higher than they pay the State for the same crude oil. It demonstrates, in addition, that the State has a contractual right to that higher price. It points out that the State is not pursuing this contractual right.

This is the second in a series of fact-finding reports by the Joint Committee on Public Domain. The first dealt with the

administration of the State-owned tidelands and may explain, in part, the dereliction of the administrators of the contract in this area. A third, due shortly, will discuss the absence of a common carrier pipeline system in California and its effect on crude oil pricing. This report shows what the exchange system, which functions to keep open the legal loopholes that prevent the pipelines of the State from becoming common carriers, is also used to hide the high price the majors pay each other.

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I. CRUDE OIL AND POSTED PRICE

Crude oil is a mixture of hydrocarbons of varying physical properties. It may have within it, in almost any combination, very light hydrocarbons, such as those which go into the making of gasoline; middle weight hydrocarbons, such as those used for diesel fuel; and heavy, or long chain hydrocarbons, such as those which are used for bunkering ships and for power plants. In a refinery, these general classes of hydrocarbons are sorted out by distillation.

To a refinery, the value of a particular crude is related to how much of each of these three "cuts," as they are called, there is in the crude. However, when purchasing crude oil, refiners use a rough indicator known as specific gravity which is the weight per unit volume of crude in comparison with that of water. This is codified by the American Petroleum Institute into a table of gravity degrees with the lightest crude oils, generally those containing the

most "gasoline cut" and having the lowest specific gravity, receiving the highest A.P.I. gravity number; conversely the heaviest crudes, having the highest specific gravity, are given the lowest numbers of A.P.I. gravity.

The products which can be made in a simple refinery from each cut differ widely in value. In general, the crudes with the highest gravity numbers, i.e., those containing the most gasoline, are the most valuable to such a refinery. Because of this such a refinery would be willing to pay more for a "light" crude than for a "heavy" crude. A system of crude pricing has developed to take this into account. Crudes are priced by gravity degrees with each lower gravity degree receiving a lower price. For comparison, the highest gravity crudes in California are about 40^o A.P.I., which is somewhat lower in specific gravity than straight-run kerosene; the

lowest are about 10⁰ A.P.I., which is about the same specific gravity as bunker fuel.

Crude oil is sold by producers to refiners at "posted price." The posting contains a list of the gravities produced in various fields and the prices at which the refiners offer to purchase each gravity.

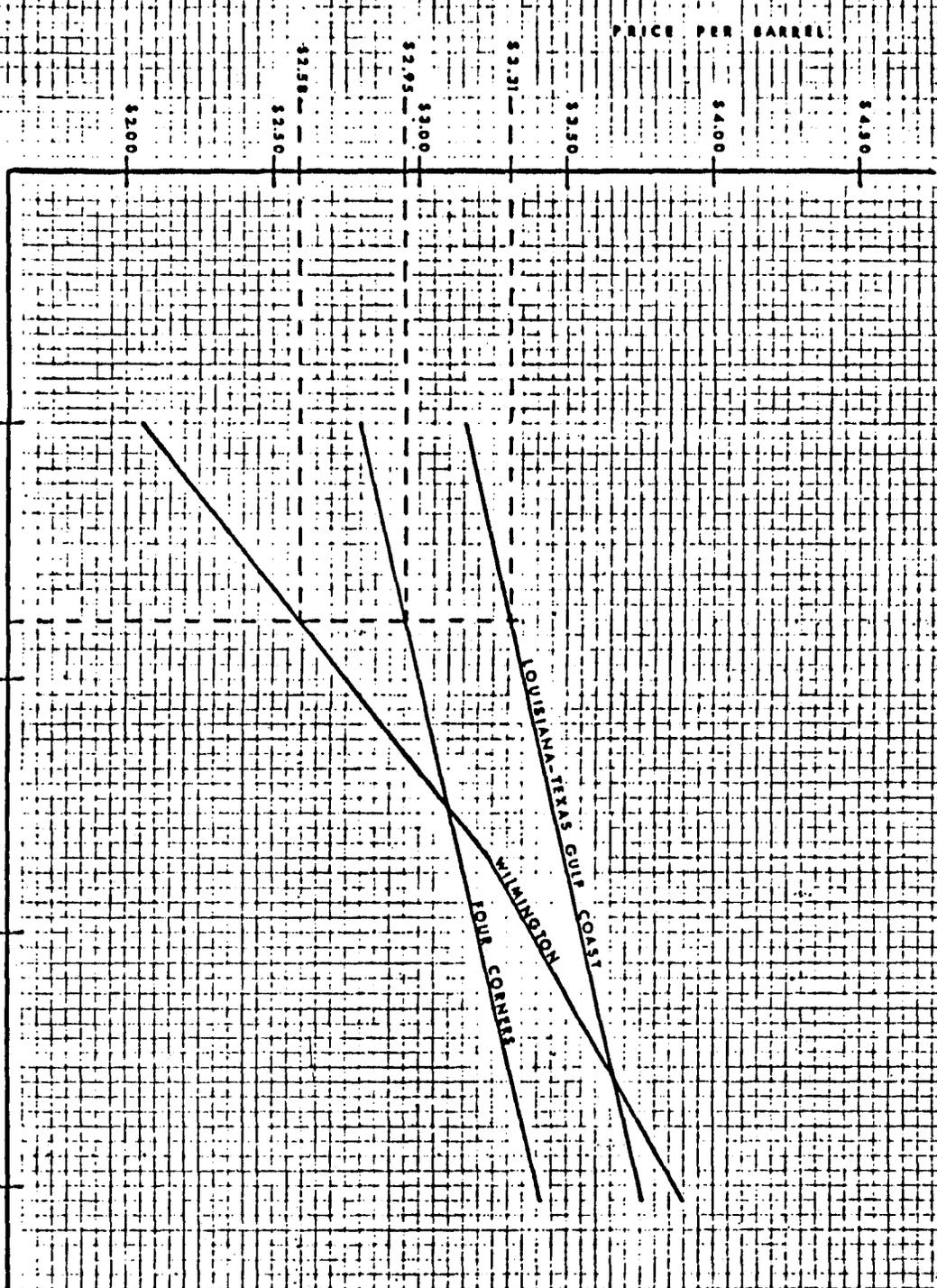
It is important to note three things. First, unlike almost any other commercial transaction, in the crude oil market the purchaser sets the price. Second, there are only three purchasers who post prices in California (Standard Oil Company of California, Mobil Oil Company and Union Oil Company) all of which are "integrated" oil companies* (a fourth, Atlantic Richfield posts in a very small number of fields).

* Broadly speaking, "integrated" companies are those with production, refining, marketing and transportation. "Independent" companies are those engaged in only one of these segments of the industry. With its tidelands oil production, the State is the largest independent producer in California.

The other purchasers, both integrated and "independent" purchase crude oil at the "posted price in the field." This "price by declaration," determined by the four integrated companies listed above, is the posted price the State receives for its crude oil. Third, the independent producers are totally dependent on the major integrated companies. Since the majors own the only available crude oil transportation system, the independents must accept the majors' price or go out of business.

On February 26 and 27, 1973, the Joint Committee on Public Domain held hearings in Sacramento at which allegations were made by the independent producers of California that the price of heavy crude was unjustifiably low. They testified that in the rest of the country the gravity differential was 2¢ per degree A.P.I. gravity, while in California the average differential is 6.2¢. (See Graph A) For each degree below the

Variation of Posted Prices by Gravity in Wilmington and Comparable Fields Outside California



TEXT

At the graph demonstration, Wilmington crude is priced 37 cents below Four Corners' crude and 73 cents below the Louisiana-Texas Gulf Coast crude at 18 degrees.

SOURCE

Perry's Oilgram Price Service
April 24, 1973

Operators of the Wilmington Field blend for 18° gravity crudes.

GRAPH A

maximum for the field, an average of 4.2¢ more is deducted in California than in Texas. This is of great concern to the State because the oil in the East Wilmington Field averages 18^o, whereas the top posting is for 31^o oil there. The consequences to the State of this differential, 4.2¢ per degree, over 13 degrees (31^o - 18^o)*, is 54¢ per barrel. With the State's share of the East Wilmington Field production at 103,000 barrels per day in 1972 and the State receiving payment on 96.3%, the State appeared to be losing \$54,000 per day in income because of the excessive price differential, just from that one unit.

The consequences of the seemingly excessive differential apply to other independent crude oil producers as well. The majority of the crude oil in the State is at or below 20^o. For most California producers

* 31^o is the highest gravity posted in the Wilmington Field.

the cost of producing the oil approaches their gross income at these high price differentials. The producers testified that if they were to receive the same price for crude oil that Texas and Louisiana producers receive, they could double their production by introducing expensive, high recovery techniques. If the same applied to the State's oil, more oil could be recovered in the future through secondary and tertiary recovery methods.

The curious point about the gravity differential is that the major oil companies in California have built their refineries to make the most efficient use of heavy crude oil. They have in their refineries catalytic crackers, cokers and hydrocrackers, all of which break down the long, heavy hydrocarbon chains into lighter, more valuable products like gasoline. In particular, the hydrocracker takes the residuum (cut 3) and after it has been run through a

coker, makes five barrels of high-price gasoline from four barrels of low-price residuum. The independent refiners, on the other hand, rarely have equipment more complex than the simple distillation unit which separates crude oil into its components. Thus, low gravity crude oil (crude with a large proportion of cut-3) is far more valuable to a large, sophisticated refinery than to a small, simple one.

Yet, in practice, the small independent refiners, which are least capable of using heavy crude efficiently and sell products at lower prices than the majors, are willing to pay more for heavy crude than the majors. This suggests that the majors are making exorbitant profits in their refineries by setting a posted price which is lower than the fair market value.

The State has a way of testing this hypothesis. Under its contracts and leases, it has the right to take its royalty oil in

kind, rather than in cash. On several occasions recently, under committee urging, it did this and auctioned off the "in-kind" oil.* The results were astonishing. In the two years since these sell-offs were commenced, the State's crude oil has brought bids of from 16¢ per barrel to \$1.27 per barrel higher than the posted price. Curiously, the bonus bids were not offered by the integrated oil companies (who claim to be desperate for all the oil they can get) but by independent refiners and by gasoline brokers. The independent refiners, as a rule, do not have the sophisticated equipment of the majors and cannot crack residuum into more valuable gasoline. The products that they do make are generally sold cheaper than the equivalent products of the majors. Yet, somehow, they were able to pay

* See The Administration of State Owned Tidelands, pp. 13 - 16, for a history of the State Lands Division's delays in commencing the sell-offs. (Joint Committee on Public Domain, August, 1974)

more than the majors for crude. To a similar result, the gasoline brokers do not have refineries; presumably they planned to purchase crude for \$1.27 higher than posted, trade the crude to refiners for gasoline, sell the gasoline to low-price marketers, and make a profit in between.

The evidence is compelling that the posted prices are askew. Yet, there is another way of telling whether crude prices represent their true market value. There are occasions when one of the integrated companies discovers oil in an area far removed from its transportation facilities, but near those of a competitor. If the posted price is reasonable, the producing company would be willing to sell the crude at that price and try to acquire replacement crude nearer its transportation. If, on the other hand, the crude oil is priced arbitrarily low, and exorbitant profits are being made in refining, the integrated company would want

to get all the under-priced crude it could into the refinery to partake of those profits and be unwilling to sell crude at unrealistically low prices.

In the petroleum industry in California, the latter is the case. But then the question arises, how is the producer going to get crude oil from the field to his refinery when he does not have nearby transportation facilities? The easy answer would be to use the competitor's nearby pipeline. But this is not so easy as it seems. As the Joint Committee on Public Domain will point out in its next report on crude oil pipelines, there is no common carrier pipeline system in California. In order to keep within the legal loopholes for preventing public interest regulation of its pipelines, (and thus maintain control over the crude oil market) each company must own all of the crude oil which flows through its pipes. The majors are in a quandry. The pipeline owner must own

the oil if it wants to keep the power to exclude others from its pipeline, but the company with the oil does not want to sell it at the low market price.

The solution is to arrange an exchange whereby the company with oil in the field "sells" it to the owner of the pipeline on the promise of the pipeline owner to "sell" oil back to the first company at a more convenient location. This way the pipeline owner "owns" the oil in its line (thereby avoiding public regulation) and the company in control of the oil does not lose money by selling it at a depressed price--since he is merely trading it for other oil.

II. HOW EXCHANGES WORK

A. The 3-Cut Exchange

The 3-cut exchange is the most intricate type of exchange the oil companies engage in, but strangely the most accurate index of the fair market price.

In this type of exchange, which occurs almost exclusively among major, integrated oil companies, several crudes are exchanged on each side. Each side agrees to deliver the same number of barrels of crude oil to the other. In addition, each delivery of crude oil is analyzed to determine the percentage of each "cut" in the crude oil, that is, light distillate for making gasoline (cut-1), middle distillate for making diesel and jet fuel (cut-2), and residuum for heavy fuel oil and bunker oil (cut-3); and the parties agree to keep in balance the number of barrels of each cut delivered. In general, no money changes hands in the course of the exchange to compensate for differences in the quality of the various crudes. The

agreement is that the value of the cuts completely represents the value of the oil.

The participants to these exchanges have thus set up a system of evaluating crude oil which has no reference to money and, therefore, cannot be compared with posted prices. It is not surprising that with very few exceptions only major oil companies participate in this market. Rarely does a major enter into a three-cut exchange with a producer or independent refiner.

The system would be impenetrable to outsiders were it not for one unavoidable flaw: the actual deliveries of cuts between two companies are forever getting out of balance. There are three ways they handle this problem: by changing crudes, by making "paper" settlements called "book transfers," and by settling cut balances for products or cash. The first two maintain the secrecy of prices and are much preferred. In the first, a company which has been delivering, for example, too

much cut-1 and cut-2 and too little cut-3, will, by agreement, remove from his side of the exchange a light crude and substitute a heavy one until the deliveries of cuts balance. In the second, if Company A has delivered 1,000 barrels too much cut-1 to Company B; Company B has delivered 1,000 barrels too much cut-1 to Company C on a completely different exchange; and on yet a third exchange, Company C has delivered too much cut-1 to Company A, they make paper deliveries by cancelling the balances. Alternately, the two companies may adjust cut imbalances by transferring them to different 3-cut exchanges between the same parties. Each major is frequently engaged in several three-cut exchanges with each other major. It is a mark of the frequency of this kind of transaction that the Joint Committee has hundreds of examples of "book transfers" of crudes from one exchange to another.

But the most interesting means of settling balances, for anyone who wants to determine the value of crude oil, is cashing the cuts out. When neither of the preceding methods is satisfactory, the companies will agree to settle balances of cuts for deliveries of finished product or for cash.

The following are examples:

In June 1971, two major oil companies agreed to liquidate their cut balances by cash purchase. The terms were:

Company A purchased cut-1 at \$4.24/barrel

Company B purchased cut-2 at \$4.41/barrel

Company A purchased cut-3 at \$3.50/barrel

The two companies, of equal market power, bargaining at arm's length, set the market price of the cuts. If this figure is applied to a 3-cut analysis of Wilmington crude, a fair market value for Wilmington crude is established.

The documents the Joint Committee subpoenaed from the oil companies included an analysis of Wilmington 19^{o*} crude which shows

* The crude from the Long Beach Unit in Wilmington is slightly below 19^o

it contains 13.3% cut-1, 13.4% cut-2 and 73.3% cut-3. Applying the values negotiated in the example above, we get

$$\text{Cut-1: } \$4.24 \times 13.3\% = \$.56$$

$$\text{Cut-2: } \$4.41 \times 13.4\% = \$.59$$

$$\text{Cut-3: } \$3.50 \times 73.3\% = \underline{\$2.57}$$

$$\text{TOTAL: } \$3.72$$

In other words, the companies, among themselves, valued 19⁰ Wilmington crude at \$3.72/barrel. On that same day, the posted price of that crude - the price they pay outsiders - was \$2.68. The crude was worth (and traded for) \$1.04 more per barrel than the State of California was paid.

Instead of cashing the cuts out, most companies convert them to products and then adjust the balances on their product exchanges. For example, two companies agreed to the following liquidation of cut balances on March 23, 1973:

1 barrel Cut-1 = .87 barrels 93.5 octane
housebrand gasoline

1 barrel Cut-2 = .91 barrels Cut-1

1 barrel Cut-3 = .53 barrels Cut-1

Using these ratios, they converted the cut balances to gasoline and cancelled the cut balances by delivering appropriate quantities of gasoline on product exchanges. If these values were applied to 19⁰ Wilmington crude, the following calculations would take place.

Although Platt's Oilgram does not post a refinery price for 93.5 octane gasoline, the average of its postings for 91 octane and 95 octane was 14.5798¢/gallon or about \$6.12/barrel.

Cut-1 value = .87 X \$6.12 = \$5.32

Cut-2 value = .91 X \$5.32 (Cut-1 value) = \$4.84

Cut-3 value = .53 X \$5.33 (Cut-1 value) = \$2.82

Multiplying these cut values by their percentages in 19⁰ Wilmington crude,

Cut-1 value = \$5.32 X 13.3% = \$.71

Cut-2 value = \$4.84 X 13.4% = \$.65

Cut-3 value = \$2.82 X 73.3% = \$2.07

TOTAL: \$3.43

The posted price for 19⁰ Wilmington crude on that day was \$2.68/barrel. The companies dealing with each other, thought the crude was worth \$.75 per barrel more than they paid the State.

As we will show later on, various other cut analyses run, over time, between \$.14 and \$1.74 higher than posted price.

It is crucial to understand that the settlement of cut balances between majors is the closest approximation we have to a fair market price. It is set by willing buyers and willing sellers of equal bargaining power. By contrast, the posted price is dictated by the majors and the independent producers have the choice of accepting that price or going out of business.

B. The Posted Price Exchange

A second type of exchange used with some frequency is the posted price exchange. In this exchange Company A buys a given crude from Company B at posted price, and Company B

buys crude from Company A at posted price. The quantities are agreed either to be an equal number of barrels or are adjusted so that an equal amount of cash trades hands. These exchanges are rarely used between majors; they generally take place between a major and an independent.

The difficulty of evaluating these exchanges arises from the fact that it is necessary to evaluate the crude oil to determine the economic benefits to each company. The companies insist that the values are represented by the posted prices but this is patently absurd. If the companies trade equal barrels of crude and the difference in price between the postings is 4¢/barrel, it doesn't matter what the absolute price is. An exchange where 1,000 barrels of crude changes hands, the crude which Company A is selling has a posted price of \$4.00 and the crude Company B is selling has a posted price of \$4.04 has the same economic effect as if

the crude A is selling had a posted price of \$7.00 and the posting for B's crude is \$7.04; or A's 40¢ and B's, 44¢. In any of these cases 1,000 barrels of crude changes hands and B has a net gain of 4¢ per barrel or \$40.00. The posted price is nearly meaningless.

This is a recognized economic fact of the industry. We have scores of economic analyses of posted price exchanges made by various companies before they enter into posted price exchanges. The value of the crude is always analyzed and is always higher than the price. One such analysis details the values this way:

Sell Wilmington 19 ^o	\$ 2.93
Lose value of Wilmington	<u>(3.98)</u>
	\$-1.05
Purchase San Joaquin Valley 17 ^o	\$-2.75
Gain value of San Joaquin Valley	<u>+4.31</u>
	\$+1.56
TOTAL GAIN:	\$.51

It is interesting to note that the posted price of the San Joaquin Valley 17^o crude is 18¢ less than the higher gravity

Wilmington crude, but the refinery value of the heavier crude is 33¢ more than the lighter crude.

A third type of exchange existed until recently, known as the quota exchange. It is no longer a factor in the market, and is discussed in Appendix A.

In general, we will reserve these analyses by companies of the refinery values of different crudes for a later report. The point here is that there exists a market where crude oil values are determined by arm's length negotiation between willing buyers and willing sellers. The prices paid are very much higher than those paid to the State and weak independent producers by the powerful major oil companies which post prices.

III. THE STATE'S RIGHT TO EXCHANGE VALUES

This discussion of exchange values is not of merely academic interest. The State has the right to these excess exchange values.

The largest part of the State's oil revenues comes from Tract 1 of the Long Beach Unit of the Wilmington Oil Field. Production from this tract averaged 95,384 barrels per day during the year 1973. This tract is operated pursuant to a contract between the City of Long Beach (as trustee for the State of California) and nine oil companies *

* The field was bid in increments. The field contractor which has the obligation to do the actual drilling and production work, and must take and pay for 80% of the oil from the field is a consortium of five major oil companies Texaco, Exxon, Union, Mobil and Shell. The other oil companies have only the obligations to take their allocated percentages of the oil and pay for it. The 10% share was won by a joint venture of Pauley Petroleum and Allied Chemicals, and the remaining four shares, totaling 10% were won by a joint venture of Standard Oil Co. of California and Arco. Each of the companies bid a percentage of the net profits from developing the field. The weighted average of all bids is 96.3%

in 1965. The details of the contract are set forth in "The Administration of State Tidelands" published by the Joint Committee on Public Domain in August 1974. Suffice it to say here that the field is developed under a net profit contract whereby the companies are required to produce oil from the unit, take the oil and pay the State on the basis of a formula set out in the contract. The formula consists of four alternative pricing provisions, which work out roughly to the posted price and a "most favored nation" clause.

It is the most favored nation clause which concerns us here. The clause provides that if any contractor or any partner in one of the joint ventures which comprise a contractor, acquires oil anywhere in the Wilmington Oil Field (including, but not limited to, the Long Beach Unit) by purchase or exchange, at a higher price than in the four other valuation provisions, that person

must pay the higher amount to the State on all the oil it takes from Tract 1 that day.

This is precisely what is happening with 3-cut exchanges. All of the major oil companies in the Wilmington field acquire oil in the field by the three-cut exchange. The State is entitled to the values of the exchanges which are higher than posted price. We have determined values for 3-cut exchange applied to Wilmington 19.1^o crude (the State's crude is slightly lower in gravity than 19^o) for the years 1969, 1971, 1972 and 1973^{*}. The values are, respectively, 14¢, \$1.04, \$1.74, and 75¢ higher than the posted prices. If we apply these values to the production from Tract 1^{**}, we get:

1969	\$ 5,307,478
1970	4,897,878
1971	32,343,537
1972	47,065,377
1973	19,453,059
1974 (6 mos.)	<u>9,456,618</u>
	TOTAL: \$118,523,947

* Derivations are given in Appendix B.

** Applications are given in Appendix C.

Most of this money is available to the State, if the State Lands Commission which is charged with protecting the State's interests under the Tract 1 contract goes after it and rigorously asserts its rights to this money. The State has been satisfied to be paid roughly the posted price, but it has the contractual right to receive the value of its crude oil.

IV. CONCLUSIONS AND RECOMMENDATIONS

It is obvious that exchanges hide the true value of crude oil from independent producers, including the State. The State is fortunate to have covered itself with a most favored nation clause and has a right to the higher exchange values. It is now incumbent upon the State Lands Commission to get these values from the oil companies, enlisting the aid of the Attorney General, if necessary. This must be done immediately. Every day's delay is a day that recovery is barred by the Statute of Limitations. The oil companies have the documents to prove these charges; this Committee got the information from them by subpoena. The State Lands Commission can do the same.

Beyond this lie possible solutions, so that the State can avoid undercharges in the future and so that the other independent producers of the State can receive a fair value for their oil.

To resolve this problem, we must look

at pipelines. So long as the majors wish to maintain a private carrier pipeline system, with the right to exclude competitors, they must own the crude oil which flows through their pipelines. Since the major oil companies frequently have crude oil production distant from their own transportation systems, but near a competitor's, they often sell their crude oil to the competitor by exchange. They will be able to set unreasonably low posted prices for the purchase of crude oil as long as they can avoid selling their own crude to the pipeline owners at those prices by side-stepping into the exchange market.

If the posted price of crude oil, then, is to represent its fair market value, the majors must be barred from the exchange market. In other words, we propose that the Legislature enact a law prohibiting the use of exchanges and reciprocal purchase-sale agreements in the petroleum industry. This would force the majors either to price crude

oil at realistic levels or open their pipelines to public regulation and, therefore, competition. It has the added advantage of being radical legislation only to people living in the 11th Century. Every other industry in the Western world has given up barter as a means of transacting business; the oil companies will suffer no undue hardship by discovering the virtues of the money system.

Finally, it is necessary to have federal restraints on crude oil prices lifted so crude prices can undergo an adjustment. As of the moment, the price of crude oil is frozen for the independent producers, including the State, by Federal Energy Regulations. The Federal Energy Agency froze the price of crude oil at a level which is unrealistically low. This report has demonstrated that the majors trade crude oil among themselves at much higher levels than they pay "outsiders." Every producer in California should have the benefit

of those higher price levels.

This does not mean that product prices should be increased. It is clear that the benefit of low crude prices accrues to the refiners. It is not passed on to consumers. Our gasoline prices in California are similar to those elsewhere in the country, but our crude prices are at least 75¢ per barrel lower. What we suggest is that the freeze on crude oil prices be lifted, but that no pass-through of the increased price to products be allowed. This way the State and other independent producers will increase their revenues to a fair level (revenues which can be reinvested in further exploration and crude recovery techniques) without simply increasing inflation and fattening the major oil companies.

APPENDIX A - QUOTA EXCHANGES,
INCLUDING PHANTOM EXCHANGES

The quota or phantom exchange came into being with issuance of the federal Mandatory Oil Import Program in 1959. Under this program, demand for, and local supplies of, crude oil were determined. The gap between demand and availability of local supplies was then made up by imported oil. Each refiner was given an import quota to fill that gap and issued import "tickets" to permit entry of a specified amount of imported oil. Small refiners were issued proportionally more tickets than large ones, in recognition that the small, often land-locked refiners, would be unable to get imported oil to their refineries. Therefore, they were allowed to trade their tickets (their rights to foreign oil) for inland domestic crude which was controlled by the large major oil companies.

A large exchange market grew up where independents traded their tickets for

domestic crude. Of course, the major acquiring the tickets would designate the foreign oil it wanted, wherever possible, its own foreign production.

Occasionally, however, an independent refiner had adequate supplies of domestic crude and simply wanted to sell its tickets. Since it was illegal to sell tickets, the phantom exchange was invented. The importing company purchased domestic crude oil from the inland refiner, often in the inland refiner's refinery tanks. The importer would then "trade" that oil back to the inland refiner for tickets, with trading a differential ranging from 25¢ to \$1.25 per ticket. Thus, the proscription against selling tickets was circumvented.

This type of exchange became obsolete with the 1973 changes in the Mandatory Oil Import Program.

APPENDIX B - CALCULATION OF CRUDE OIL
VALUE FROM COMPANY SETTLEMENTS OF 3-CUT EXCHANGES

In the following exchanges, two majors determined the values of the various "cuts" in order to eliminate exchange balances.

1) September 1969:

Two companies settled balances on the following basis:

1 barrel Cut-1 = .987 barrel gasoline,
with motor octane plus
research octane 172.0

1 barrel Cut-2 = .750 barrel gasoline

1 barrel Cut-3 = .410 barrel gasoline

The price of regular gasoline that month in Los Angeles, as quoted in Platt's Oilgram for refinery sales was 11.5¢/gallon or \$4.83/bbl. Multiplying to find the values of the cuts, we get:

Cut-1: .987 X \$4.83 = \$4.77

Cut-2: .750 X \$4.83 = \$3.62

Cut-3: .410 X \$4.83 = \$1.98

Multiplying the percentage of each cut in a barrel of 19.1⁰ Wilmington crude oil, we get:

3) 1972:

In the year 1972, we could not find a full trade-out of the three-cuts between any two companies, but we do find trade-outs of the different cuts on various different exchanges. These values are, 1 barrel Cut-1: .785 barrel premium gasoline. During that month (September) Platt's Oilgram showed average refinery price for 100 octane premium gasoline of 14.575¢/gallon or \$6.1215/barrel.

Another agreement, in April, valued 1 barrel Cut-2 = 1 barrel stove oil.

Platt's showed a value for stove oil in April of 10.75¢/gallon or \$4.52/barrel.

In October, two companies agreed that, 1 barrel Cut-3 = 1.2 barrels heavy fuel oil.

Multiplying these cut percentage equivalents by the product values, we get:

$$\text{Cut-1: } .785 \times \$6.12 = \$4.80$$

$$\text{Cut-2: } 1 \times \$4.52 = \$4.52$$

$$\text{Cut-3: } 1.2 \times \$3.60 = \$4.32$$

Multiplying these values by the

percentages of each cut in 19.1^o Wilmington,
we get:

$$\text{Cut-1: } \$4.80 \times 13.3\% = \$.64$$

$$\$4.52 \times 13.4\% = \$.61$$

$$\$4.32 \times 73.3\% = \underline{\$3.17}$$

Value of 19.1^o Wilmington
from companies' trade \$4.42

Posted Price \$2.68

\$1.74

4) March 1973:

An agreement was reached between two
companies agreeing on the following values:

1 barrel Cut-1 = .87 housebrand gasoline,
93.5 research octane

1 barrel Cut-2 = .91 barrel Cut-1

1 barrel Cut-3 = .53 barrel Cut-1

Platt's does not report a price for 93.5
octane gasoline, but does report on 91 octane
and 95 octane. These averages are:

15.1298¢/gallon 95 octane

14.0298¢/gallon 91 octane

This average to 14.5798¢/gallon or \$6.12/bbl.

Using this as the value of housebrand gasoline,

and multiplying to find the cut values,
we get:

$$\text{Cut-1} = .87 \times \$6.12 = \$5.32$$

$$\text{Cut-2} = .91 \times \$5.32 = \$4.84$$

$$\text{Cut-3} = .53 \times \$5.32 = \$2.82$$

Multiplying these values by the
percentage of each cut in Wilmington 19.1^o
crude oil, we get:

$$\text{Cut-1} = \$5.32 \times 13.3\% = \$.71$$

$$\text{Cut-2} = \$4.84 \times 13.4\% = \$.65$$

$$\text{Cut-3} = \$2.82 \times 73.3\% = \underline{\$2.07}$$

Value of 19.1 ^o Wilmington crude from companies' trade	\$3.43
---	--------

Wilmington crude 19 ^o Posted Price	<u>\$2.68</u>
--	---------------

\$.75

APPENDIX C - LOSSES TO THE STATE

It will be assumed, for lack of better information, that the losses analyzed in Appendix B are valid for the entire calendar year in which they took place. It will be assumed, to be conservative, that the 1969 value applied to 1970 as well, since no specific exchange values have been found for 1970. Finally, it will be assumed that crude oil price increases, such as took place in May of 1973, were passed on in market price, making the cuts proportionally more valuable.

In applying the values to Tract 1 production, different methods were necessary for the years 1969 through June of 1972, and thereafter until June of 1974.

1. Method for 1969 - June 30, 1972.

The total production of Tract 1 is split into three groups: the Field Contractor, with 80% of the tract's production; Allied Chemical and Pauley, with 10% of the tract's production; and Atlantic Richfield and

Standard Oil Company's four shares which total 10% of the production from the tract.

Allied and Pauley's share is excluded from the results. The Committee did not subpoena information from them since they are not major oil companies and are engaged in few, if any, 3-cut exchanges.

To find the total, we determined a weighted average of bids by multiplying their percentage share of the tract's production by the percentage of net profits the bidders (except Allied and Pauley) turn over:

THUMS	.800	X	.9556	=	.76448
Arco-Standard	.050	X	1.000	=	.05
" "	.025	X	.9954	=	.024885
" "	.015	X	.9954	=	.014931
" "	<u>.010</u>	X	.9955	=	<u>.009955</u>
	.900				.864251

We then multiplied the total tract production for the years 1969, 1970, 1971 and the first half of 1972 by this number (rounded off to .864). This product was then multiplied by

the shortage for the year as determined from Appendix B. The results were:

<u>Applicable Production</u>	
1969	43,877,960 X .864 = 37,910,557 bbls. X \$.14 = \$ 5,307,478
1970	40,491,717 X .864 = 34,984,843 bbls. X \$.14 = \$ 4,897,878
1971	35,994,855 X .864 = 31,099,555 bbls. X \$1.04 = \$32,343,537
1972 (1st half)	15,712,331 X .864 = 13,575,454 bbls. X \$1.74 = \$23,621,290

2. July 1, 1972 - June 30, 1974.

In the fall of 1971, the first sell-off of the State's reserved share was held. That sale amounted to 12½% of the total production from Tract 1 and by the terms of the operating agreement it all came out of the Field Contractor's 80% share. The first delivery began on July 1, 1972, reducing the Field Contractor's proportionate share to 67½% of total. For these calculations that 12½% is no longer involved.

The THUMS adjusted percentage now changed to .675 X .9556 = .64503. The Arco-Standard

share remains at 10%. So the factor now becomes .745, instead of .864.

1972 (Second half)

Applicable Production:

18,085,387 X .745 = 13,473,613 bbls.
13,473,613 bbl. X \$1.74 = \$23,444,087

1973 (Calendar year)

Applicable Production:

34,815,318 X .745 = 25,937,412 bbls.
25,937,412 X \$.75 = \$19,453,059

1974 (First half)

Applicable Production:

16,924,596 X .745 = 12,608,824 bbls.
12,608,824 X \$.75 = \$9,456,618

TOTALS:

1969	\$ 5,307,478
1970	4,897,878
1971	32,343,537
1972 (1st half)	23,621,290
(2nd half)	23,444,087
1973	19,453,059
1974 (1st half)	<u>9,456,618</u>
TOTAL:	<u>\$118,523,947</u>

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JOHN A. NEJEDLY
SEVENTH SENATORIAL DISTRICT
CONTRA COSTA COUNTY

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ELECTIONS AND
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PENAL INSTITUTIONS, CHAIRMAN
JOINT COMMITTEE FOR REVISION
OF THE PENAL CODE



CALIFORNIA LEGISLATURE

Senate

August 30, 1974

SEP 6 1974

The Honorable Kenneth Cory
Member of the Assembly
State Capitol, Room 5016
Sacramento, California 95814

Dear Ken:

I regret that I am unable to concur in the conclusions of the second and third in the series of fact-finding reports of the Joint Committee on Public Domain.

The second report ("Crude Oil Exchanges--The Other Currency") appears to be based on a false premise: the price of Wilmington crude can be determined by prices paid elsewhere under exchange agreements. I am advised that the Long Beach tidelands oil contracts specifically prohibit this procedure.

The second report also accuses the State Lands Commission (and, by implication, the City of Long Beach) of dereliction of duty. I do not believe this was discussed in the hearings of the committee, nor was the city given an opportunity to respond to the allegation.

The third report ("Crude Oil Pipelines in California") appears to go far beyond the approach embodied in SB 2179 (Behr) and AB 4250 (Bagley) relating to pipeline regula-

The Honorable Kenneth Cory
August 30, 1974
Page Two

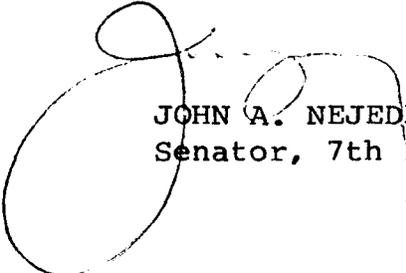
tion. The approach embodied in those bills are based on the recommendations of the Attorney General and represent a more reasonable approach to the problem.

Finally, the report entitled "What's the Rush" is also unacceptable. While I endorse the concept that outer continental shelf development should not conflict with the Coastal Zone Conservation Plan and that such development must be contingent on conformance with the National Environmental Policy Act and the forthcoming national energy policy, I cannot approve of the report for the following reasons:

1. It considers --in depth-- subjects not adequately presented to the Committee in public sessions.
2. The report in general is not of professional quality and specifically fails to recognize recent developments and resolutions passed by the California Legislature and activities of other legislative committees.
3. It fails to recommend any specific course of action for California.

I trust that the reports will be made public and distributed through your office even though I am unable to concur in the conclusions.

Very truly yours,



JOHN A. NEJEDLY
Senator, 7th District

JAN:mco

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California Legislature

Joint Committee on Public Domain

KENNETH CORY
CHAIRMAN

JOHN A. NEJEDLY
VICE CHAIRMAN

September 11, 1974

The Honorable John A. Nejedly, Member
Joint Committee on Public Domain
State Capitol
Sacramento, California

Dear John:

In response to the comments of several members of the Joint Committee on Public Domain regarding the lack of hearings to give the State Lands Division and Commission, and the City of Long Beach, opportunity to discuss the subject matter of the report with the Joint Committee on Public Domain, I would like to have the record reflect the following facts:

1. On June 13, 1973, a staff meeting was held with staff from the Joint Committee on Public Domain (W. J. Lamont, E. W. Browne, C. J. Heinrich, and R. E. Neuman), the City of Long Beach and the State Lands Division. The purpose of this meeting was to discuss crude oil exchanges and the value thereof as it related to the price currently received for Wilmington crude.

As a result of that meeting, the above staff were represented in a two-day meeting with a major oil company at which sample exchanges were shown, but hard economics were refused. This position was opposed by the Joint Committee on Public Domain and the Long Beach representative, with the State Lands Division representative unwilling to force the issue.

2. A Joint Committee hearing was held in Long Beach on October 2, 1973 (see transcript) wherein it was made very clear that the City of Long Beach representatives understood the implications of exchanges; the representative

of the State Lands Division claimed he had examined the records and found no example of exchanges which would lead him to believe that another system of crude oil pricing existed.

3. A Subcommittee on Crude Oil Pricing meeting was held in Sacramento on April 30, 1974, in which the Chairman of the State Lands Commission, the Executive Officer of the State Lands Commission and the State Lands Division and a representative from the Attorney General's office were once again questioned by the Chairman of the Joint Committee on Public Domain about their pursuit of this vital pricing mechanism.

In view of all the above efforts by the Joint Committee on Public Domain, it is unreasonable to conclude that in-depth hearings on crude oil exchanges were not held. With the clear mandate given the State Lands Commission in Chapter 138, Statutes of 1964, to protect the State's long-range economic interest in the East Wilmington Field, the State Lands Commission's responsibility is well-defined.

It is the primary responsibility of the Joint Committee on Public Domain to direct the Legislature's attention to the administration of State tidelands by State agencies. This is the most direct way the Legislature can protect the taxpayers of California.

A second criticism of the report is that the true value of Wilmington crude, as analyzed in the report, is based on crude prices elsewhere, which is not permitted under the Wilmington contract.

This is inaccurate. The contract provides that when any of the companies involved in Tract 1 acquires any Wilmington crude oil by exchange at a higher value than the price it pays the State under the formulae in Paragraph 9(b) of the Tract 1 agreement, Paragraph 9(c) gives the State the right to the higher value. All of the companies acquire Wilmington crude by three-cut exchange. The value for which they acquire the Wilmington crude is the cut value they give up. Since the values of the component cuts in a three-cut exchange are agreed to represent the value of the crude oil, all we need do is find an indicator of cut values. The "cashing out of cuts" described on pages 15-18 of the report, is the best indicator we have. The Wilmington contract is silent about how or where the values are to be determined; we believe that the above method of determining cut values is perfectly satisfactory. After all, it is the industry's own method for its internal use.

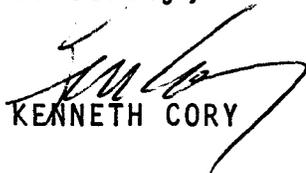
Hon. John A. Nejedly

-2-

September 11, 1974

In conclusion, we believe that the criticisms of the report are unfounded and are not sufficient reason to withhold publication of the report.

Sincerely,



KENNETH CORY

KC:sc