Option VI. Bill additional royalties only for specific lease volumes where audit demonstrates third-party sales by affiliate are at premium above posting.

This approach would assess additional royalties only where MMS audits show the lessee's affiliate received premia above posting for specific sales traceable directly to the Federal lease. No dollar estimates are given; until MMS audits demonstrate specific instances of affiliate sales at premia by lease, any estimates would be speculative.

Option VII. No attempt to collect additional royalties for past periods; instead, revise the MMS oil valuation rules.

MMS would not try to collect additional royalties for past periods in California. Rather, it would pursue revising its oil valuation rules for prospective application. Thus, no additional royalty collections would result until the regulations were revised, and then only prospectively.

At the conclusion of this presentation the Director and the AS/LM asked the team to prepare a final report, including its recommendations for further action. This report fulfills that request.

IV. TEAM'S OVERALL FINDINGS

A. Summary

The team found that a large proportion of California oil production is either exchanged between the major integrated firms or moves internally between their affiliates. For the relatively small volume of oil that is sold or purchased outright, the team concludes that payment of premiums above posted prices occurred commonly. Further, the team has been informed by auditors familiar with the situation that lessees usually paid royalties on posted prices. To the extent that this is true, their royalty payments reflected less than their gross proceeds from the sales. Also, non-arm's-length sales were often undervalued because they did not reflect the price received for oil produced from the same field or area and sold under arm's-length contracts.

B. Findings

1) Crude Oil Valuation

The team's, consultants', and MMS' studies have led the team to conclude that regardless of posted price levels, companies often receive gross proceeds higher than these postings. Since the team was informed by MMS and California auditors that most Federal royalty payments are based on postings, it follows that royalties have been underpaid.

Although Texaco and Shell were the focus of preliminary investigations, the team examined in detail purchase and sale contracts these two companies had with a number of other oil companies. Both the MMS audits and the team's records research produced substantial evidence that Texaco and Shell bought and sold crude oil of the type produced on Federal leases at premia over posted prices. Typically, these transactions were carried out by the trading division of the overall company (e.g., Texaco Trading and Transportation, Inc.-TTTI), which also obtained and distributed Federal lease crude.

Shell and Texaco also produced, from non-Federal leases, crude oil of the same types as Federal crude. In exchanges and in its internal transfers to its trading affiliate, each company's common practice was to value the crude oil at posted prices. Usually this transfer has been the basis for paying royalties to the MMS. Arm's-length purchases and sales at prices over the postings show that postings do not reflect the reasonable royalty value of the crude oil under MMS' regulations, and thus the Federal Government has not received the monies to which it is entitled. The following supports this conclusion.

The consultant study performed by IIC examined California crude oil sales contracts gathered in Long Beach II. Based partially on the premia in these contracts, IIC concluded:[17]

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[17]Other factors in determining the premia were Shell's and Texaco's own transactions involving California crude oils where substantial premia were paid; price comparisons between California crude oils and other comparable crude oils; prices

- In 1984, posted prices for California crude oils were underpriced between $2.00 and $3.00 per barrel, and

- In 1989, posted prices were underpriced from $0.50 to $1.00 per barrel.

The smaller 1989 premium results from lower oil prices after 1986.

In September 1995, the team spent three days at the IIC offices conducting an independent review of the contracts. In addition to reviewing a number of contracts that contained premiums in the range observed by IIC, that review both validated IIC's findings and provided additional quantitative information on Texaco and Shell trading practices.

The second consultant contract, with Micronomics, Inc., valued California crude oil by comparison to Alaska North Slope (ANS) prices. Its overall finding was that open market prices for ANS crude oil exceeded postings for comparable Ventura crude oil by about $3 to $6 per barrel from 1980 to the 1986 oil price crash, and $1 to $1.40 from 1986 to 1993. The report concluded that all California crude oil production was undervalued by comparable amounts during these periods.

Company records set forth in Appendix 4 show that the large

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paid in public sales of California crude oils; and statements contained in documents produced by Shell, Texaco, and the other major oil companies covering the 1984 period.

integrated oil companies operating in California often made comparisons between California postings and ANS prices and that they purchased ANS crude regularly to fill their refineries' crude oil slates.

The different levels of undervaluation estimated by the two consultants are not incompatible. Both concluded that the market constriction imposed by proprietary pipelines[16] operated by the major refiners had two critical effects. First, it greatly restricted open-market trading in California crude oil; second, it segregated the crude oil markets of the San Joaquin Valley and Ventura Basin from the refining centers in San Francisco and Los Angeles. The reports concluded that the pipeline situation contributed to postings substantially understating California crude oil values. They also concluded that while these captive prices were far below the value of California crude oil to refiners, ANS crude oil was relatively free to seek a value

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[16] For many years, the pipelines used to transport oil in California have been owned and operated by the major integrated companies. This restricted independent refiners and producers from entering into transactions that would have effectively made the crude oil market more competitive. Since the commerce is intrastate, the Interstate Commerce Commission has no jurisdiction in forcing the pipelines to operate as common carriers. However, the Mobil M-70 heated pipeline crosses Federal right-of-way, granted pursuant to the Mineral Leasing Act. Therefore, the Department of Interior has the authority to require that Mobil operate its proprietary pipeline as a common carrier. Recently, partially as a result of the Long Beach II settlement, all pipelines except for three heated pipelines (including Mobil's M-70) now operate as common carriers.

nearer its true value.[19]

The relatively small number of outright purchases and sales seen in the contract files are almost always at a premium above postings. During the period 1980-1993, refiners could often justify paying a significant premium over posting compared to the alternative of making purchases of ANS crude oil. For example, one memorandum and related contract provided by IIC indicated that (in 1984) little or no crude oil was available at posting, thereby justifying a significant company purchase at prices several dollars per barrel over posting.

Even though trading did occur at substantial premia over postings, it seems not to have fully eliminated the substantial refining profit margin associated with processing California crude oil. Eleven examples of company internal valuation analyses drawn from the Long Beach II records are evaluated in Appendix 4. These show that postings, even after adjusting for quality differences, offered the refiners as high as $4 per barrel additional profit compared to the refiners' standard alternative--Alaskan North Slope crude oil. While this comparison was made independently by different California

[19]In actuality, ANS prices may also have been depressed by the glut of ANS crude on the West Coast. Since the ANS crude could not be exported, the alternative for Sohio/BP, its largest net seller, was to ship the excess to the Gulf or East Coasts at a substantial additional cost. This may have given West Coast refiners the market leverage to exact prices that were lower than otherwise would have been the case. (See "Exporting ANS Crude Oil: Benefits and Costs," interagency study led by DOE, June 1994.)

refiners employing differing methodologies, the refiners' results were essentially the same.

Micronomics valued California crude solely on the price of ANS crude using methods similar to the simplest of the refiner examples the team reviewed. Micronomics' estimates, therefore, implicitly capture some of the high refiners' profit margin obtained from processing California crude oil.

The findings of IIC, Micronomics, MMS and the team itself were employed in reaching the recommendations presented later in this paper.

2) Sales Distribution and Premia

IIC, Micronomics, and the MMS auditors asserted that relatively little crude oil in California was traded in an open market. The team's examination of the IIC/Long Beach II records in Boston, while not comprehensive, generally confirmed this. In reviewing records and contracts for 1989, the team found that Texaco transferred all of its production to TTTI. TTTI then traded and sold it or similar crude oil to third parties, or transferred it to Texaco Refining. Shell followed a similar procedure in 1984, although it sold negligible amounts of its production.

After transferring Federal crude of a specific type to a company's trading division, the distinction between Federal and non-Federal crude oil was lost. Federal crude oil was not specifically invoiced in companies' records after internal transfers, so it is unlikely that gross proceeds in excess of posted prices can be traced to the production of specific Federal leases.[20] This implies that value imputation is necessary under either the 1988 regulations or their predecessor.

The team's contract review indicated that most of the third-party transfers were exchanges and buy/sell transactions:

- For Texaco, of the contracts representing receipts and deliveries of 306 thousand barrels per day (mb/d), only 68 mb/d or 22 percent, were outright purchases or sales. Of the 68 mb/d, 84 percent contained a premium over posting.

- For Shell, the data the team examined were somewhat less detailed than for Texaco. Most of Shell's production moved internally to its refineries (these contracts are not part of the <u>Long Beach II</u> documents). The team examined most of the 20% of Shell's exchange contracts that had implied premiums over postings (the other 80% didn't have any reference to postings). Many of these exchanges involved trading ANS or Line 63 crude (both of which are sold on the spot market) for California crude from specific fields. The field-referenced crude oil posted prices can be put on a comparable basis with ANS or Line 63 crude oil prices by adding or subtracting transportation and quality

[20] Some offshore crude may be identifiable.

> adjustments. After adjustments are made to the corresponding field posting, the resulting price is still substantially lower than spot prices for ANS or Line 63 crude oil.

The team also examined and verified the terms of Shell's outright purchase contracts. Substantial premia were present in most of these transactions.

The levels of premia observed by the team are consistent with the findings made by IIC.

3) Exchanges

For accounting purposes, exchanges fall in two classes: barrel-for-barrel exchanges where, at most, a location differential is referenced in the contract; and buy/sell exchanges where contracts carry a reference to the underlying prices of the crude oil being exchanged. In the latter case, posted prices are most commonly used. However, the parties can assign any price as long as there is a reciprocal valuation on the crude oil sent as well as the crude oil received. In short, the price--even between unrelated oil companies--is not necessarily the fair market value of the crude oil. The team believes that most buy/sells and pure exchanges are functionally the same.

In fact, the contracts examined show that both types of exchanges were used to trade the same types of crude oil between the same locations. TTTI, for example, which operates Texaco's proprietary pipeline system, uses both types of exchanges simply to transport others' crude oil in its pipelines for a fee. Similarly, Texaco, Shell, Chevron, and others trade Kern River and Midway Sunset crude oils (two interchangeable crudes produced on the east and west sides of the San Joaquin Valley) barrel-for-barrel for the locational convenience of each party to the trade. Some contracts quote only a location differential, and other contracts quote posted prices, thereby defining the trade as a buy/sell. However, the buy/sells the team reviewed do not appear to involve actual sales.[21] Moreover, there is no obvious opposing economic interest in either case; the companies are simply conducting exchanges to obtain crude oil in locations that are more favorable for their refining or subsequent distribution. This observation is consistent with the Director's decision on exchanges, described in Appendix 2.

4) Audit Findings

The intent of the special audit was to look beyond posted prices, which the MMS has generally relied on for royalty valuation purposes, and determine if significant crude oil volumes were sold and/or purchased at premia above posted prices. Fairly comprehensive Texaco accounting records directed the auditors to specific contracts for examination. On the other hand, Shell

[21]Sales typically must fulfill three criteria: transfer of title, payment of consideration, and the intent to sell. The first two criteria may be satisfied in a buy/sell arrangement, but the apparent intent of those the team reviewed was simply to move crude oil to mutually advantageous locations.

provided less data to MMS' auditors. Accordingly, underpayment determination methodologies differed between the two companies.

- For Texaco, the MMS auditors examined contracts associated with crude oil distribution points for 1993. When the cost of crude oil received at each location was subtracted from the value booked when the crude was shipped out, an average volume-weighted premium of $0.89 per barrel was calculated.[22] Only third-party transactions were used in this computation, but buy/sell exchanges were included along with outright purchases and sales.

- Because Shell did not provide detailed accounting data, the auditors tabulated the premia over posted prices associated with 23 contracts that were in effect during 1984. The simple, arithmetic average (as opposed to volume-weighted) was $1.33 per barrel. The premia ranged from $0.14 to $3.60 per barrel.

In general, the audit data confirmed the presence of premia over postings in both Texaco and Shell dealings. However, the average premium computed for Texaco includes transportation costs. For example, subtracting all apparent transportation costs for Texaco

[22]This figure includes transportation costs associated with moving the crude oil between distribution points. Texaco refused to provide information to determine these costs, so the auditors took the position that no cost will be permitted unless this information is provided.

for 1993 leaves a premium of about $0.16 per barrel.

The principal reason that the residual premium may be so much lower than the $0.50 to $1.00 premium discussed elsewhere in the report is that the MMS auditors included buy/sell exchanges in their computations, and these rarely carry premia. Further examination shows that over half of the volume MMS auditors examined is for receipts and transfers at the end of Texaco's heated pipeline to San Francisco. This implies that a majority of the buy/sell exchanges the auditors included in their computation probably are trades solely to provide transportation to the refineries in the San Francisco Bay Area.

V. RECOMMENDATIONS

A. General

The team considered a number of issues related to California oil valuation, including:

1) Further audit/contract review procedures potentially leading to bills,

2) How such procedures might vary by time period,

3) How such procedures might vary by company,

4) Time periods for pursuing collections,

5) Valuation methodologies, and

6) Revision of the current MMS oil royalty valuation regulations.

The team was able to reach consensus on some of these issues, but "agreed to disagree" on others. (Where the team split on an issue and two different recommendations are given, nothing should be inferred about their relative position in the text.) As an example, the team reached consensus on a recommended valuation approach for post-3/1/88 periods, but not for earlier ones where MMS may choose to pursue additional royalties.

B. Recommended Approach for Post-3/1/88 Time Periods

1) **Overview**

In its draft paper dated December 6, 1995 (Appendix 3), the team identified seven options for addressing potential oil royalty underpayments. The recommended option described here is a hybrid of several options Specifically:

- The team's recommended approach involves calculation of a premium based on audit and review of arm's-length sales and purchase contracts.

- The team recommends that straight exchanges not be considered to be arms-length sales or purchases. Similarly, the team recommends that buy/sell transfers not be considered arms-length sales unless the companies can show that there are opposing economic interests in each buy/sell contract and that the intent was truly to sell or buy the oil as opposed to merely swap the oil for locational convenience.

- o The team recommends that MMS minimize the additional audit work required to collect underpayments by:

  - AS/LM issuing a royalty "payor letter" to obtain arm's-length contract information for the periods in question. The purpose of this letter, patterned after the Interior Department's June 18, 1993 letter regarding natural gas settlements, would be to obtain purchase and sales prices for California crude oil and other selected contract information. The team feels this action will expedite the potential appellate process, because the payor letter would be final agency action.

  - Reviewing each target company's records obtained from Long Beach II to focus any subsequent audit on specific contracts or trading relationships.

Note also that while the information collection techniques may vary, the team otherwise recommends the same general procedures for future California oil royalty valuation until or unless MMS further revises its royalty valuation regulations.

2) Valuation Recommendations

Details of the team's recommendations and the accompanying rationale are as follows:

- The first benchmark at 30 CFR § 206.102(c)(1) should be employed to calculate the volume-weighted average premia subject to collection. As discussed earlier, under this subsection MMS would develop premia it would apply to transactions not at arm's-length. The premia would be based on the price received for arm's-length sales. MMS would prepare bills and pursue collection on a company-by-company basis. Audit and contract review procedures may vary somewhat depending on circumstances--such as company marketing situation and records availability. The audit/contract review may result in calculated premia based on differences between booked costs and revenues of related contracts (such as MMS has already done for Texaco) or review of pure contract premia (such as for the Shell audit work done to date). The audit/contract review used in developing the weighted average premia should be limited to arm's-length sales and purchases for the company subject to review. If the first benchmark is not applicable to a company, MMS would use the next relevant benchmark.

- Oil sold at arm's-length would be valued based on the lessee's gross proceeds.

- For production not sold at arm's-length, gross proceeds establishes minimum value. If MMS can show that a lessee's gross proceeds in a specific non-arm's-length transaction are higher than the premium calculated under the benchmarks, royalty on Federal production tied to that transaction would accrue on the higher gross proceeds amount.

- In general, the team believes that buy/sell contracts are not at arm's-length. We recommend that MMS review several large buy/sell contracts for each company before it issues a bill or issue letter. If MMS concludes for that company that buy/sell contracts are not arm's-length purchase or sale transactions, MMS would state in its issue letter that it didn't consider buy/sells in reaching its preliminary findings. The responsibility would rest with the company to show that the parties to individual buy/sell contracts have opposing economic interests according to the arm's-length definition at 30 CFR § 206.101 (or indeed, that they even represent actual sales and purchases). The lessee has the burden to demonstrate that its contract is arm's-length (30 CFR § 206.102(b)(1)(i)).

  Further, the team believes that MMS may find that apparent premia associated with outright sales or purchases are clearly greater than those related to buy/sells. (This may occur where the buy/sell contract only includes, in addition to specified prices, a location differential and no other apparent premium.) If this is the case, we recommend that MMS' issue letters cite this fact to support a preliminary finding that buy/sells aren't arm's-length sales and purchase contracts and thus weren't included in calculating apparent royalty underpayments due on non-arm's-length sales and purchases. Once again, the responsibility would rest with the company to show that individual buy/sell transactions truly represent contracts wherein the parties have opposing economic interests according to the arm's-length definition at 30 CFR § 206.101.

- In calculating the volume-weighted premia applicable company-by-company, the reasonable, actual transportation costs associated with specific crude oil movements should be allowed according to MMS' regulations at 30 CFR § 206.105. If the oil transportation is under an arm's-length transportation contract, subpart (a) would apply. If transportation is under a non-arm's-length contract or there is no contract (such as use of the company's owned facilities), subpart (b) would apply. (For periods before 3/1/88, the provisions of the U.S.G.S. Conservation Division Manual should apply, since these were the guidelines then in effect.[23])

[23]They differ from the current procedures mainly in certain levels of detail--for example, the permissible rate of return in non-arm's-length situations is higher in the current rules. The general philosophy is the same for pre- and post-3/1/88; accept

- The volume-weighted premia determined company-by-company through the period of the audit/contract review would apply to all of that company's Federal oil production, excluding oil sold at arm's-length and Royalty-in-Kind volumes the company delivered for MMS' account.

- In determining the volume-weighted premium, arm's-length sales without premia must be included in the calculations. When possible, the premia must be calculated both monthly and on a field or area basis according to 30 CFR § 206.102(c)(1). If the premia are established on a yearly basis, the rationale for doing so must be thoroughly explained. For example, if contracts provided for the same premia through the year, and all contracts were in effect throughout the year, there would not be a need to develop a monthly premium.

3) Collection Procedures

Additional audit/contract review work may be needed to justify collecting royalties from previous periods, even for Shell and Texaco. Therefore, recommendations in this area fall into two

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ar. s-length transportati- fees and use a system of [(depreciation + operatinc ·ost + return on investment for the year)/yearly throughput] f.r non-arm's-length or no-contract situations. Either way the company's demonstrated reasonable, actual cost is allowed.

categories: first, the method of accumulating enough information to determine unpaid royalties; and second, the approach for initiating collection.

On the subject of information gathering and audits, the team recommends the following:

- Issue a royalty "payor letter" to the targeted corporations (about 10 companies) ordering them to submit arms-length contract information for periods in question. This letter, patterned after the Department of Interior's June 18, 1993 letter regarding natural gas settlements, would require for each arms-length contract in effect during the time period under review:

    - grade and volume of crude oil sold (purchased);
    - point of title transfer (e.g., gathering tanks);
    - transportation charged (paid);
    - price basis for the sale (purchase);
    - period during which the above price terms were in effect.

    These data items should be provided for <u>all</u> arm's-length purchases and sales of California crude oil, and not be limited to identifiable Federal royalty crude. The contracts would cover all activity by the corporation and all its consolidated entities, not simply the production company.

- Review each targeted company's records obtained from Long Beach II. The objective would be similar to the purpose of the "payor letter;" that is, to obtain a body of company-specific information on arms-length purchases and sales of California crude oil similar to Federal royalty crude. To expedite the data collection process, this review could take place concurrent with the "payor letter" process described above. (Receipt of comprehensive data in response to the payor letter might preclude the necessity to review these records.) Perhaps more importantly, though, if the "payor letter" approach either is not used or is less than fully successful, these data are readily available for MMS review.[24]

- MMS audit personnel should oversee the data collection procedures and decide if the companies have provided enough (and timely) information for MMS to calculate specific royalty underpayment amounts for the entire target period. If not, MMS would perform supplemental audit work as needed.

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[24]We recognize some limitations related to the fact that the available contracts generally cover only the period 1980-89. Application of this review for periods later than 1989 may be limited but still useful in the sense that many contracts are "evergreen" and may continue to apply in future periods. Also, for periods before 1989 we recognize that the MMS contract review may necessarily be limited to the contracts covering the period it ultimately decides to pursue.

To initiate collection, in general, the team recommends:

- Once sufficient information has been obtained and any necessary additional audit work performed for the selected period, MMS first should send the company an issue letter describing any problems found. This would serve to crystallize the issues and dollar amounts involved, give each company an opportunity to respond, and set the stage for either a final MMS demand or negotiations.

- MMS should be prepared to issue a bill for unpaid royalties soon after receipt of the company's response to the above issue letter. Depending on the individual situation, the MMS demand letter may include an order for restructured accounting.

Due to the amount of audit and research already performed on Texaco's and Shell's records, a slightly different approach is recommended for these companies:

- For Texaco, the team recommends that MMS immediately send an issue letter including proposed bill amounts for 1989 and 1993. The issue letter should cite the apparent systemic underpayments demonstrated by the MMS audits.

- The payor letter should also address all relevant years other than 1989 and 1993. Texaco should be informed that, unless it timely provides information sufficient for MMS to make a determination of underpayment, it must perform a restructured accounting for all other years during the time period selected. Once Texaco is given reasonable time to respond (no longer than 90 days), MMS should then issue a bill for 1989 and 1993. Also, if the other information received from Texaco is ins..fficient or untimely, MMS should issue an order for restructured accounting for the rest of the selected period.

- The recommended approach for Shell is similar to that for Texaco if MMS chooses to go back at least to 1984. That is, MMS should send an issue letter including proposed bill amounts for 1984 based on completed audit work. MMS should also send the "payor letter," to cover all other relevant years. MMS should inform Shell that unless they timely provide information sufficient for MMS to make a determination, they must perform a restructured accounting because of the 1984 audit findings. (To support the finding of a systemic error, a proposed bill for selected months for other years also should be developed. Hopefully the basis for such a bill would be the Long Beach II records for Shell contracts reviewed during the Texaco audit.) Once Shell has had a reasonable time to respond, MMS should then issue a bill for 1984 and the selected additional months. If Shell does not respond sufficiently or timely to MMS' "payor letter," MMS' order should include a directive to perform restructured accounting for the rest of the selected period. If MMS decides not to go back as far as 1984, the recommended approach should be the same as for all the other targeted companies.

4) **Post-1988 Period Rationale**

We believe this approach provides the best combination of:

1) Attempting to collect the appropriate royalties in conformance with the 1988 valuation rules,

2) Being consistent with past MMS practices and procedures,

3) Creating a position likely to be perceived as reasonable (and hence enforceable) by the courts and other arbiters,

4) Developing methods usable by MMS auditors on a continuous basis, and

5) Not taking a position likely to damage MMS' standing in related issues elsewhere.

C. Recommended Approach for the Pre-3/1/88 Period

1) Overview

Members of the team differ on the recommendation for assessing and collecting royalty underpayments for the period prior to 1988. The differences relate to opinions about the latitude allowed under the pre-1988 regulations to establish royalty value for Federal crude oil. Specifically:

- The Energy and Commerce Department representatives believe that the pre-1988 regulations allow MMS to establish value, at least for royalty payors that are also refiners, in accordance with the refining industry's own methods of establishing relative value. That is, the true value of California crude oil to most of the larger royalty payors (who are refiners) should be established in a direct, quality-and transportation-adjusted comparison to Alaskan North Slope crude oil. This is the methodology also proposed by one of the MMS consultants, Micronomics.

- The Interior Department representatives, from MMS and the Solicitor's Office (MMS/SOL), believe that the pre-1988 regulations are, in principle, the same as the post-1988 regulations. Their recommended approach is the same as applied to the post-1988 period, as described above. The primary reasons are that the regulations rely on prices paid or offered in the same field or area as the lessee's production, and royalty is not to be less than gross proceeds accruing to the lessee from the sale of its production.

The following sections amplify these positions.

2) Establishing Royalty Underpayments Employing ANS Crude Oil--Recommendation by the Energy and Commerce Department Representatives

Throughout the 1980's, evidence mounted[25] that posted prices, particularly in California, were substantially lower than the true value of the oil. Lawsuits by the State of California and the City of Long Beach uncovered a wealth of company documents that showed companies routinely bought and sold California crude oil at prices substantially over posted prices. The records the team reviewed, as discussed in the "Findings" section of this report and Appendix 4, show that they justified those actions with internal analyses demonstrating that, even at premia of several dollars per barrel over posting, California crude oil was still undervalued. The standard usually used in the records reviewed was quality-adjusted prices or values for Alaskan North Slope crude oil--one of the few competitively-traded crude oils

[25]MMS feels evidence existed during the 1980's to indicate that posted prices were an acceptable measure of oil value. Studies by A.D. Little Inc. and the General Accounting Office did not find that posted prices undervalued oil in California. Also, the Department of Justice declined to pursue antitrust actions against the defendants in the Long Beach litigation.

in the State.[26] During the period under review ANS crude oil accounted for approximately 30 to 45 percent of the crude oil refined in California.

The team's Energy and Commerce Department representatives recommend establishing the value of California crude oil based on quality-and transportation-adjusted open-market prices of ANS oil. This ANS valuation is the open-market price paid in the geographical proximity to the locations where a major portion of California crude oil is refined. Adjustments for relative quality differences between ANS and California crude oils would be made using factors employed by the industry at the time.

(a) Authority Under MMS Regulations

In the opinion of the team's Energy and Commerce Department representatives, prior to 1988, the MMS royalty valuation regulations were substantially more flexible than are the current regulations. In fact, the 1988 regulations, which were the result of several years of discussion between the Federal and state governments, industry and others, were in part a response to perceived subjectivity in interpretation. Therefore, the Energy and Commerce representatives believe that the regulations that were in effect at the time permit the MMS to value California crude oil just as the Long Beach suit records show that oil companies themselves established value.

[26] By 1984, Line 63 mix, a blend of San Joaquin Valley heavy and light crudes, was also traded enough to justify publishing a "spot" price in several industry trade publications.

The regulatory authority for this position derives from 30 CFR § 206.103, which begins:

> The value of production, for the purpose of computing royalty, shall be the estimated reasonable value of the product as determined by the Associate Director... (emphasis added)

The section continues, observing that "due consideration" should be given to highest prices paid, prices received by the lessee, and posted prices. Latitude was allowed to include "other relevant matters." The regulation quite clearly establishes the gross proceeds to the lessee from a royalty oil sale as only the lower limit on valuation.

The pre-1988 regulations did not contain a complex benchmark system for valuing oil not sold at arm's-length. Rather, they included qualified direction on the use of sales prices for valuation. Specifically, for onshore leases, the regulations state:

> In the absence of good reason to the contrary, value computed on the basis of the highest price... paid or offered at the time of production in a fair and open market for the major portion of like-quality oil...produced and sold from the field or area where the leased lands are situated will be considered to be a reasonable value. (30 CFR §206.103 (1986)[27]

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[27]Identical language is contained in outer continental shelf leases. The terms "sold" and "major portion" are not defined, thereby lending a degree of subjectivity to interpretation and application of the regulation.

This infers that, at a minimum, value should be established by arm's-length[28] sales records.

The team's investigations, and the observations of MMS' consultants, indicate that the amount of California crude oil purchased or sold under arms-length contracts was relatively small. On the other hand, hundreds of thousands of barrels per day of ANS crude oil were sold in California by ANS producers--principally Sohio/British Petroleum, which did not have a California refinery. Further, although California crude oil quality varies over a large range of API gravities, California refiners found ANS crude sufficiently similar to permit using simple price adjustments (e.g., figures of $0.15-$0.20 per API degree) to establish a relative value for the local crude oils.

It follows that the "open market" standard for California crude oil value was (and still is) Alaskan North Slope crude oil sold in the Los Angeles and San Francisco markets. The applicability of this observation to California royalty values might be hard to establish were it not for the fact that the Long Beach records show that refiners (who were also Federal crude producers) routinely valued incremental purchases of California crude oil in this manner. This, in and of itself, constitutes the "good reason to the contrary..." to forego valuation using purchase and sales contracts in favor of establishing California royalty value based on ANS crude oil sales.

[28]Although the regulation does not specifically mention arms-length purchases and sales, intra-corporate transfers certainly do not qualify as "open market" activity.

Finally, the team only addressed the "fair and open" aspect of the California market peripherally. Activities focused mostly on contractual evidence regarding the hypothesis that posted prices understated the value of California crude oil. Nevertheless, several observations indicate that the market for California crude oil was not "fair and open:"

- During the 1980's, the California oil market was heavily concentrated with the integrated firms owning 75 to 80 percent of oil producing and refining activities and 100 percent of the heated pipelines that transport crude oil to market.

- The crude oil contracts review indicated that large producer-refiner-pipeline owners routinely traded among themselves so that each trading partner obtained crude oil in favorable locations. In other cases, companies owning pipelines simply transported crude for other large producer-refiners. Typically, they used exchanges rather than open tariffs. Shipping crude oil for third parties, under State law, would require that the pipelines hold themselves open as common carriers to all parties, thus eliminating the proprietary status of the pipelines. Internal records showed some majors' concerns about compromising the proprietary pipeline system in the State. Non-integrated producers, even large ones, rarely appeared as exchange partners with the major pipeline owners. Rather, they sold their crude to the major company at, or near, its point of production. Until the late 1980's, these sales were made at the refiner-pipeline owner's posted price. The team believes that if the Department requires oil pipeline owners with Federal right-of-ways to operate their pipelines as common carriers rather than private carriers, posted prices may converge with the real market value of crude oil. This would increase Federal royalties.

- Contracts showed that the cost of California crude oil to smaller independent refiners sometimes included both outright premia over posting and a "hidden" premium in the locational adjustment charged in the contract. One clear example was seen by the team in the contracts reviewed for sales of Midway Sunset crude oil by one integrated pipeline/refining company to two independent refiners in San Francisco. The independent refiners paid $0.20 more as a locational adjustment than was charged to integrated companies that shipped (via exchanges) crude on the pipeline/refining company's pipeline.

- By the late 1980's, premia over postings were so common that they were reported in the trade press and were even paid to some of the larger independent producers. These premia, however, were only a small part of the difference between postings and what the integrated companies' internal documents showed California crude oil was worth compared to the alternative of purchasing

ANS crude oil. Thus, it is likely that the proprietary pipeline systems and trading practices of the major companies sustained a two-tier market wherein prices for San Joaquin Valley and Ventura Basin crude oils never approached the market-clearing levels afforded to ANS crude oil in the refining centers.

- Although the team did not directly review the 1960-70's period of the early Long Beach lawsuits, trading practices were addressed by the Long Beach lawyers in our discussions. In particular, the "three-cut" exchange system is evidence of the extent to which the early California market was not "fair and open." During that period, heavy crude oil (most of the State's production) postings were so far depressed below refining value that the major companies could not use published gravity-based price differentials to adjust value in their extensive exchanges. To compensate, they structured a trading system available only to major companies wherein each type of crude oil was divided for accounting purposes into three fractional barrels: a heavy, residual fuel-type oil; a mid-range oil; and a light, naphtha cut. Rather than account for trading whole barrels, the major companies traded and accounted for the barrels' components--thus the "three-cut" name for the process. The process had phased out by 1980, but its presence earlier indicates that today's restrictive California market practices grew from activity that was much more clearly closed and unfair to a major sector of the State's oil economy.

In conclusion, the Energy and Commerce Department representatives believe that the team's review of refiner/producers' internal valuation procedures, their trading practices, their use and control of proprietary transportation systems, and the history of their market activities provide ample "reasons to the contrary" for looking past the limited arms-length contracts available for review in the pre-1988 period. Further, while it is impossible to prove or disprove[29] the existence of a fair and open market, the evidence reviewed strongly suggests that free and open crude oil trading in the California market is now, and for years has been, prohibited by the restrictive practices of the major integrated companies. In this environment, a two-tier valuation system evolved. Accordingly, the Energy and Commerce Department representatives believe that MMS regulations in effect prior to 1988 permit using the valuation system that is most beneficial to the Federal Government and the public that it represents.

(b) Recommended Valuation Methodology

The team members from the Energy and Commerce Departments recommend that, for royalty payors that are refiners (or were

[29]There is no standard for "fair and open" specified in the MMS regulations, and no universally accepted methodology available in the literature on the subject of competitiveness measures.

refiners when royalties were due[30]), the pre-1988 value of royalty crude oil should be established based on quality-adjusted prices paid for ANS in the California market. The valuation procedure would be similar to that proposed by Micronomics, Inc., one of the two consultants MMS retained to assist this study group.

Valuation should follow the steps below:

- Begin with the market prices of ANS crude oil in Los Angeles. These may be obtained in one or both of the following ways:

  - After 1984, this is available from data services or the Energy Information Administration on a daily basis. Prior to 1984, Sohio's West Coast ANS prices were available in various industry trade press publications (e.g., Petroleum Intelligence Weekly and other sources).

  - Employ the targeted company's cost (price) of ANS crude oil bought (sold) in the California market. Obtaining these data is discussed under "Procedures" below.

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[30]Regardless of whether their refineries were in California or elsewhere. Refiners with plants out of state could still preserve the value advantage of their California crude oil using exchanges or buy/sell contracts with other large California refiners.

- Adjust the ANS price for the Los Angeles value of the Federal crude by subtracting a cents per API degree figure obtained from posted price schedules--typically this is \$0.15 to \$0.20 per API degree. Ample data are available to make a monthly calculation if necessary.

- Further subtract appropriate transportation costs to Los Angeles. These are readily available as published Line 63 tariff rates plus nominal local rates (\$0.05 to \$0.25 per barrel), or derivable from internal tariffs or contracts.[31]

- Subtract from this figure the refiners' posted prices and apply the appropriate royalty percentage to the result. This produces estimates of royalty underpayments, assuming that postings were used to pay royalties initially.

- Add interest.

For non-integrated companies prior to 1988, value should be established based on true (non-exchange) arms-length contracts consistent with the procedure established for the post-1988 period.

[31]The team reviewed some internal tariffs obtained in the Long Beach lawsuits; it also examined pipeline charges reflected in the Texaco data obtained in the audit phase of this study.

(c) Procedure for Collections

The focus of this collection should be the ten or so[32] largest royalty payors in California. Audit efforts should be minimal and confined to confirming or refuting selected data provided by the companies. To facilitate preparing a bill for each of the companies, a "payor letter" and records review similar in concept to the post-1988 period procedures should be employed. Specifically:

- The "payor letter" should seek records on prices (costs) of ANS crude oil sold (bought) during the target collection period. This should include contract identification (for verification) and other delivery point and transportation cost information. In addition to ANS data, the letter should request:

  - arms-length sales records for clearly identified Federal royalty crude oil;

  - records of payment of Federal royalties for California crude oil including the price basis used to assess value (this assumes that MMS will not be able to provide such data from its records).

[32]MMS records show that the ten largest Federal crude oil producers paid over 90 percent of California onshore royalties during 1984-93. However, at least one of these was purely a producer.

- Review Long Beach records to locate ANS crude oil purchase and sales records for the targeted companies.

Preparation and submission of a bill for unpaid royalties should immediately follow any limited on-site audit review deemed necessary after these records are obtained. There seems to be no need under this approach to issue an order for restructured accounting, as MMS will have essentially revalued all the companies' California royalty production on the basis of the information obtained above.

Presented with such a bill, it seems likely that the companies will either attempt to settle immediately, or will initiate a long series of appeals. To expedite the appeals process, the Assistant Secretary should initially decide any appeals. This will shorten the standard process wherein the MMS Director initially decides the appeal with further right of appeal to the IBLA. The Assistant Secretary's decision would be the final Departmental decision. The appellant could then take the case to court (the Department of Interior representatives agree with this tactic).

The Energy and Commerce representatives recommend that MMS auditors not approach the companies with a request for an open-ended audit. The Shell and Texaco audits in this study demonstrate that the companies are quite willing and able to delay collection efforts for years if they so desire. If a company does suggest a negotiated solution, then the computed bill will provide the basis for the Interior Department's position in the matter.

3) **Recommendation by MMS/Department of Interior Solicitor's Office (SOL) Representatives**

These participants believe that the approach recommended for post-3/1/88 periods should also be applied to any periods MMS/Interior may decide to address before that date. That is, they recommend that:

- Arm's-length sales be valued at gross proceeds accruing to the lessee, and

- The lessee's volume-weighted contemporaneous posted prices or oil sales contract prices used in arm's-length transactions for purchases or sales of significant quantities of like-quality oil in the same field or area be used to value oil not sold at arm's-length from that field or area.

- If the lessee doesn't produce significant quantities in a field or area, look to others' arm's-length sales and purchases of significant quantities of like-quality oil from the same field or area to value the lessee's production.

The MMS/SOL representatives recommend this method because even though the MMS modified its oil valuation rules in 1988, the basic underlying principles did not change. Both the pre- and post-3/1/88 regulations rely on:

- Prices paid or offered in arm's-length transactions for production from the field or area, and

- The overriding principle that royalty is to be based on not less than the gross proceeds accruing to the lessee.

Note that the 1988 regulations effectively continued basic oil royalty valuation policies, guidelines, and procedures. The stated purposes of the new regulations were to:

1) Clarify and reorganize the existing regulations from various parts of 30 and 43 CFR,

2) Create regulations consistent with the then-present DOI organizational structure,

3) Place the oil royalty valuation regulations in a format compatible with the valuation regulations for all leasable minerals,

4) Clarify that royalty is to be paid on all consideration received by lessees, less applicable allowances, for lease production, and

5) Create regulations to guide the lessee in determining

allowable transportation costs for oil to aid in the calculation of proper royalty due the lessor.[33]

The 1988 regulations were the product of a combined effort of the MMS, States, Indian tribes and allottees, industry, and private royalty owner organizations. Their main purposes were to clarify and organize regulations residing in many separate locations, provide valuation criteria that would result in reasonable values, and create an atmosphere of certainty in royalty payments that would correct some of the royalty deficiencies encountered in the past.[34]

Although the MMS/SOL representatives recommend using the weighted-average arm's-length price from the same field or area to value California crude oil not sold at arm's-length, they have questions about the competitiveness of California's oil market. But they are not in a position to simply declare that a fair and open market does not or did not exist there. The Department of Interior is authorized to collect royalties on minerals extracted from Federal lands. Our investigation has centered on determining if royalties have been underpaid in California. Specifically, we have sought to determine whether Federal oil production in California is subject to additional royalty collection. If we were to suspect that unfair market practices exist in the California oil market, we would then refer the

[33]Notice of Proposed Rulemaking, 52 Fed. Reg. 1858 (Jan. 15, 1987), Final Rule 53 Fed. Reg. 1202 (Jan. 15, 1988).

[34]53 Fed. Reg. 1187 (Jan. 15, 1988).

matter to the Department of Justice.[35]

The MMS/SOL recommended valuation approach complies with the express regulatory provision directing value comparisons to be made in the same field or area. MMS has consistently relied on local crude oil comparisons (field or area) for valuing oil not sold at arm's-length. Reliance on field or area comparisons is integral to the regulations for both the pre- and post-March 1, 1988 periods. The intent of both regulations is to base the valuation process on local arm's-length market activity.

The MMS/SOL representatives believe that their recommended approach is consistent with the Department's long-established practices and interpretation of the valuation regulations. They believe it is important that the Department base its actions on consistent interpretation of the regulations. Higher potential royalty collections alone should not drive the decision. The Department should consider that any approach deemed to depart from past regulatory interpretations may lead to high litigation costs, and, most importantly--potentially lower net collections

[35]In 1989, the Department of Justice (DOJ) investigated charges that integrated companies operating in California were in violation of anti-trust laws. As part of their review, DOJ examined court sealed documents from the Long Beach II case. A representative from DOJ told team members that DOJ felt that any overt evidence suggesting collusion occurred in the 1960's and this "trail was too cold to pursue." Further, in evaluating which cases to pursue, DOJ must consider the best allocation of its resources. At the time DOJ felt it could better meet this objective by devoting its resources to other cases.

than under other approaches.

Further, an MMS valuation method based on longstanding administrative practice is more likely to be upheld in court than a valuation method that departs from such practice. Great deference is due the Secretary's interpretation of his statutes and regulations. However, when this interpretation departs from longstanding practice, the deference is minimal. Watt v. Alaska, 451 U.S. 259 (1981). Thus, the MMS/SOL team members believe their recommended approach provides the best combination of:

1) Royalty collection procedures conforming with the then-existing valuation rules,

2) Consistency with past MMS practices and procedures,

3) A position likely to be perceived as reasonable and enforceable, and

4) A procedure most likely to result in collections.

D. **Recommended Time Periods for Pursuing Royalty Collections**

1) **Summary**

The team deliberated the issue of how far back MMS should attempt to collect additional royalties and interest, but could not reach consensus. The DOE and Commerce representatives recommend initiating collection from 1980 forward, while the MMS/SOL representatives believe the team should not make a specific recommendation on this issue. Their respective rationales follow.

2) Rationale of DOE/Commerce representatives

Crude oil undervaluation in California is a decades-old problem. This study documented a pattern of royalty underpayment occurring over a span of years for the two companies MMS audited, and provided strong evidence that the practice extended to most major oil companies in the State. With the evidence of underpayment so clear, the Federal Government should attempt to collect the majority of the amount it is owed. Consistent with this philosophy, the representatives from the Energy and Commerce Departments recommend pursuing collections of unpaid royalties and interest from 1980 forward.

Beginning with 1980 covers the period when the largest underpayment took place. Analysis supporting the team's December 1995 Option Paper for Interior Department management showed that, of the potentially recoverable royalties and interest attributable to undervaluation during 1978-93, 63 to 74 percent is associated with the 1980-85 period. Restriction of the collection period to the years after 1985 would address only one-sixth to one-third of the unpaid royalty and interest estimate for 1978-93.

During its study, the team received a number of briefings on legal matters pertaining to the effect of the statute of limitations on collecting previously-owed Federal royalties. Due to differing court decisions on the matter, the situation is, at best, unresolved. However, the Department of Interior's position, both in public and in court, is that the statute of limitations does not apply to these matters. Therefore, any policy decision based solely on statute of limitations considerations, thus limiting collections to a small part of what might be recoverable, is not consistent with the Department's position, and may not be required by the courts.

Choice of 1980 as the most distant year of collection is not arbitrary. There are two reasons for this cutoff date:

- First, and most important, crude oil prices were Federally controlled prior to 1980, making the case for collecting royalties based on crude oil undervaluation much more difficult.[36]

- Second, the amount of revenue that might be collected for each year preceding 1980 is relatively small due to low crude oil prices and royalty volumes. Adding 1978 and 1979 to the collection period, for example, would

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[36]The State of California in its Long Beach case pursued collections from the companies dating back to 1971 with litigation beginning in 1975. The Department of Interior, in its October 1993 scoping paper, considered potential back royalty payments dating from 1960. Therefore, the choice of 1980 represents a compromise between going back to the late 1960's and limiting the scope of the investigation to post-March 1, 1988.

only raise potential collections by 6 to 10 percent. In addition, as the time period is extended, the likelihood increases that neither MMS nor the companies have records covering Federal royalty production.

The large amount that is potentially recoverable is financially significant to both the Federal Government and, because these funds would be shared, to the State of California. Initiating collections with the year 1980 offers the Federal and California State Governments a reasonable blend of achievable results and relatively high recovery of the amounts owed by the oil industry in California.

3) **Rationale of MMS/SOL representatives**

Selection of the time period for which MMS should attempt to collect underpaid royalties and interest is both a legal and policy issue. There have been different court decisions on statutes of limitations, and MMS's decision on this issue may impact not only its California oil royalty collection efforts, but also other ongoing cases where the statute of limitations is at issue. The MMS/SOL team members believe the Department should carefully consider such impacts; the ultimate course of action should not be determined solely by the level of potential royalty and interest collections. However far back MMS decides to pursue this case, at a minimum, the decision should consider:

1) The chances of collection back to various years, and

2) An overall impact assessment on MMS' programs for pursuing the issue back to various years.

Although the potential collections clearly are higher in the early 1980's compared to later periods, the MMS/SOL representatives believe the team has neither the legal expertise nor the insight into the entire royalty management program to provide a sufficiently-informed recommendation on the time period for which MMS should attempt to collect additional royalties and interest. Before deciding what period should be included in MMS' collection effort, MMS should consult closely with the Departmental Solicitor's Office and the Department of Justice.

F. <u>Revisions to Current MMS Oil Royalty Valuation Regulations</u>

MMS recently received responses to its December 1995 request for public comments on whether and how its oil valuation regulations should be amended.[37] As a result of its California oil valuation review, the team recommends that MMS revise the regulations to address the royalty valuation issues discussed in this report. In addition to its general observation that premia over posted prices occur commonly, the team sees the need to redefine or clarify some key terms in the 1988 valuation regulations. The team specifically recommends the following:

- Consider alternatives to reliance on posted prices.

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[37] Advanced Notice of Proposed Rulemaking. 60 Fed Reg. 65610-65611 (Dec, 20, 1995).

This may include the use of one or more index price(s).

- The definition of "marketing affiliate" should be revisited. The regulations currently in effect define this term as "an affiliate of the lessee whose function is to acquire only the lessee's production and to market that production." A revised definition should not be restricted to only acquiring and marketing the lessee's production, but should include entities that also acquire and market others' production.

- The term "significant quantities" can be ambiguous. A more precise definition should be included if this term is retained. One way to accomplish this would be to define a specific percent of a field's production for comparison purposes. Minimally, a set of examples in the preamble to the revised rules outlining how the definition is to be applied would be an improvement.

- The arm's-length/non-arm's-length nature of exchange transactions should be addressed. Examples should be provided in the preamble to demonstrate whether various types of exchanges should be included in establishing royalty value.