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Monday  
November 29, 1982

**REGISTRATION**  
**TABLE**

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**Part II**

**Department of the  
Interior**

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**Minerals Management Service**

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**How to Value Oil for Royalty Purposes  
From Federal and Indian Onshore and  
Offshore Leases; Proposed Guideline and  
Request for Comments**

## DEPARTMENT OF THE INTERIOR

## Minerals Management Service

## 30 CFR Parts 221 and 250

**Proposed Guideline and Request for Comments on How to Value Oil for Royalty Purposes From Federal and Indian Onshore and Offshore Leases**

November 22, 1982.

**AGENCY:** Minerals Management Service (MMS), Interior.**ACTION:** Notice of proposed guideline and request for comments.

**SUMMARY:** The January 1982 Report of the Commission on Fiscal Accountability of the Nation's Energy Resources noted that oil and gas industry representatives had voiced concern about the lack of consistency in valuation guidelines for royalty computation purposes between one U.S. Geological Survey/Conservation office (now MMS) and another. The Commission recommended that MMS issue detailed, definitive product valuation guidelines (*Report, Internal Controls Recommendation 10, page 67*). The Minerals Management Board decided that MMS should publish separate guidelines for each of the major leasable minerals. These MMS product valuation guidelines will appear in the *Federal Register* for comment and review and will be published as chapters in the Royalty Management Program *Payor Handbook*. These amended guidelines will supersede applicable parts of various Notices to Lessees and Operators of Federal and Indian Onshore Oil and Gas Leases (NTL 1, 1A, 4, 4A, 5).

This first, preliminary guideline covers the method that MMS proposes to use to value crude oil from both onshore and offshore production for royalty purposes.

**DATE:** Written comments on this proposed guideline must be received in Royalty Standards and Measurements, Denver Federal Center, Denver, Colorado, by 12:00 noon, m.s.t., December 29, 1982.

**ADDRESSES:** Comments may be mailed to Mr. William H. Feldmiller, Chief, Royalty Standards and Measurements Division, Minerals Management Service, P.O. Box 25165, Denver Federal Center, Denver, CO 80225, or delivered to Room F 211, in Building 85, Denver Federal Center.

**FOR FURTHER INFORMATION CONTACT:**

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**SUPPLEMENTARY INFORMATION:****I. Valuing Oil for Royalty Purposes**

When a company or an individual leases U.S. Government or Indian land for oil development, that company or individual (the lessee) agrees to pay a share (royalty) of what it produces from that lease to the United States, Indian Tribe, or Indian allottee (the lessor). Royalty provisions are specified in the lease between the Federal Government or Indian Tribe and the lessee.

By law, the royalty responsibilities of the lessee are to:

1. Properly handle and protect lease production;
2. Place lease production in a marketable condition;
3. Accurately measure production and sell it at the highest price obtainable;
4. Maintain accurate records of production and sales;
5. Make timely reports on production and sales volumes; and
6. Properly value production and correctly pay royalties.

In the role of agent for the lessor, it is the responsibility of MMS to:

1. Obtain lessee reports of lease production sold and of royalties paid;
2. Collect and record royalties due from, and paid by, lessees;
3. Promptly deposit royalty payments in the U.S. Treasury, or to the account of each Indian Tribe or Indian allottee; and
4. Assure payment of the correct amount of royalty by developing and distributing royalty standards and guidelines, monitoring product value, and auditing lessee documents, reports, and payments.

The royalty received by the Federal Government, Indian Tribe, or Indian allottee does not include any expenses incurred while placing crude production in marketable condition. A royalty can be paid either: (1) As a percentage of the money that the oil is worth, or (2) as a percentage of the actual oil production (royalty-in-kind oil), or (3) as a share of the profits from the lease operation (net profits share).

The period of time between the production and the sale of crude is usually short enough so that sales reports are ordinarily accepted by MMS as the basis of payment for the royalty percentage or the net profit share. Under some conditions, however, MMS may require that the royalty be based on the value of actual monthly production, including any products stored on or near the leased lands awaiting sale.

The Royalty Management Program of MMS must assure that the Federal Government and Indian lessors receive fair market value for their oil royalty. "Fair market value" means the price that U.S. crude will bring in an open and free market as a result of negotiations between a willing and knowledgeable buyer and an equally willing and knowledgeable seller, neither of whom is under any pressure to buy or to sell—given that the product is on the open market long enough to allow all potential buyers to be aware that it is being offered for sale and that the transaction is a normal one unaffected by special financing or other considerations. "Fair market value" transactions meeting this definition are referred to as "arm's-length" transactions.

**II. Computing Oil Royalties**

**A. Definition of Oil:** For the purpose of paying royalties on Federal and Indian leases "oil" is defined as follows:

"Oil" (variously called crude oil, condensate, distillate, drip, frac oil, junk oil, load oil, petroleum, scrubber condensate, skim oil, slop oil, sump oil, tank bottoms, or waste oil) means all liquid hydrocarbons that are recovered from the leased lands without resorting to a manufacturing process. The changing of pressures and/or temperatures within a reservoir is *not* considered "manufacturing."

"Manufacturing process" here means the same as "extraction" or "processing" or "refining" or "topping." It refers to any process designed to remove liquid hydrocarbons from gases or to strip liquid hydrocarbon fractions from oil by changing pressures and/or temperatures, or by introducing other materials. A manufacturing process may include the fractionation of oil, or the absorption, adsorption, and/or refrigeration of a gas stream.

**Reporting Oil Volumes:** To report oil volumes for royalty purposes, corrections must be made for basic sediment, water, and other impurities. (Some crude price schedules specify that chemical additives, such as oxygenated and halogenated hydrocarbons, are impurities that make oil not saleable.) Volumes are measured in terms of barrels of clean oil of 42 standard U.S. gallons of 231 cubic inches each at 60° F. Reports are based either on meter measurements—*provided* prior approval has been obtained from the appropriate MMS official—or on tank measurements of oil level differences that are made and recorded to the nearest quarter-inch of 100-percent capacity tank tables. (If circumstances warrant, MMS can

require greater accuracy in tank measurements.) Reported API oil gravities must be corrected to 60° F.

**B. Oil Valuation Methods:** MMS requires that oil produced under normal operating circumstances be valued at the highest posted price for like quality production in the same field or area. That is, oil royalties must ordinarily be based on the reasonable market price received by the lessee at the wellhead, lease, unit participating area, communization agreement boundary, or onshore sales delivery point from the sale of clean, merchantable quality production—that is, crude free of impurities and contaminants and fit for normal refinery processing.

Furthermore, oil royalties must ordinarily be based on the highest price available to the lessee under an arms-length agreement. Agreements that are non-arms-length may be acceptable to MMS if there is convincing proof that the agreement represents fair market value. If there is no arms-length agreement or if in the opinion of MMS, the lessee's selling arrangement does not appear to obtain fair market value, MMS will establish a value for royalty purposes.

If MMS has to establish a value for oil, its first basis will be comparable arms-length sales of like quality oil in the same field or area. That is, MMS will first review posted prices and arms-length spot sales. Next, MMS may consider non-arms-length contracts if they represent fair market value. Then, if there is no suitable open market comparison, MMS may have to work backwards from a fair market sales point that is downstream from the lease to establish a value at the lease. Finally, if no suitable open market comparison can be found, MMS may work backwards from the end use of the oil.

After establishing a fair market value for oil for royalty purposes, MMS sets up a price schedule for the lessee that adjusts that value for differences in API gravity and, where appropriate, in sulfur content. The lessee must then pay royalties according to this schedule. Whenever possible, MMS-established prices will be based on industry-posted prices for the same or a nearby field or area. In this way, the lessee can best know immediately of fluctuations in the market prices on which the MMS schedule is based.

Although oil royalties are generally acceptable if they are based on the highest price available to the lessee under an arms-length agreement (or any other agreement that represents fair market value), all the following factors must still be considered by MMS before

it uses any value for royalty computation purposes:

1. The price received by the lessee;
2. The highest price paid for some or all of a like quality oil in the same field or area;
3. Other prices available to the lessee;
4. Efforts made by the lessee to obtain a higher price;
5. Posted prices; and
6. Other relevant matters, including circumstances unique to a particular lease operation, general market conditions, fluctuations in supply and demand, saleability of certain types of oil, and the reasonable cost to a lessee of transporting lease production to the nearest available market outlet.

**Note:** Condensate, whether recovered at pipeline "drips" or at mechanical "scrubbers" at gas processing plants, is valued at 100 percent of volume—the same quantity as if recovered on the lease.

**C. Royalty Computations/Gross Proceeds:** "Gross proceeds" means the total money paid to the lessee according to the established open market price plus any additional money paid as a consideration for the purchase of the oil, less any approved allowances. "Gross proceeds" also includes, but is not limited to, tax reimbursements and payments to the lessee for certain services, such as measuring and/or field gathering. *Under no circumstances can royalty be accepted on less than the gross proceeds that a lessee receives from the sale of lease production.*

### III. Typical Oil Valuation Problems

1. Question: I get a reimbursement from my purchaser for state severance taxes. Must I add this to my sales price to establish a "gross" value for royalty purposes?

Answer: No reimbursements should be added to the sales price. The sales price you use to pay royalty must be the fair market value without any addition for reimbursements or subtraction for approved allowances.

**Note:** ALL tax reimbursements are subject to royalty payment. Report a tax reimbursement as a separate line item of Form 9-2014 and identify it by Transaction Code 14 (Tax Reimbursement).

2. Question: Will MMS accept an oil price reduction to help me pay transportation costs?

Answer: Nothing is to be subtracted from the sales price. The price used to compute royalty due must *always* be the fair market value of the oil, without deductions.

**Note:** Under some circumstances, however, a lessee may apply to MMS to deduct a transportation allowance. If MMS approves such an allowance, the lessee reports the

deduction as a separate line item on Form 9-2014 (Transaction Code 11) and takes it as a credit from the total royalties due.

3. Question: Will MMS lower its oil value for royalty purposes if a lessee can prove economic hardship?

Answer: The oil value itself is not to be lowered. It must always represent fair market value.

However, you may apply for a royalty reduction. Under certain circumstances the Secretary of the Interior can approve an application for reduction of a Federal lease royalty rate. You can then deduct any approved reduction from the royalty or net profits share percentage, but not from the oil value.

**Note:** Royalty rate reductions on an Indian Tribal Lease must be negotiated with that Indian Tribe. For an Indian Allotted Lease, royalty rate reduction requests must be submitted to the appropriate office of the Bureau of Indian Affairs.

4. Question: Company A holds a 50 percent royalty interest in Example Lease No. 2X. It sells its share of oil production under a contract which reads "Price: Example 3Z's posting plus 40¢ per barrel to recompense seller for costs and risks of transporting said crude oil to onshore delivery point." Is the 40¢ to be added to the price when Company A reports and pays royalty?

Answer: No. Company A must report the oil value and the transportation reimbursement separately. Company A should use 3Z's posting as the value for computing royalty due. The 40¢ per barrel reimbursement for transportation is part of Company A's gross proceeds on which royalties are due. Company A should report it as a separate line item on Form 9-2014 (Transaction Code 13) and pay royalty thereon.

5. Question: Company B has the other 50 percent royalty interest in Lease No. 2X. It sells its 50 percent share of oil production at the same 3Z posting and at the same onshore delivery point, but without a 40¢ per barrel transportation reimbursement. Should Company B pay royalty on 3Z's posting plus 40¢, the same as Company A?

Answer: Yes. Company B is obligated by its lease with the Federal Government to get the highest price available. The highest fair market value for oil from Lease No. 2X appears to be 3Z's posting plus 40¢. MMS expects Company B to have contracted for the 40¢ reimbursement unless a very convincing reason to the contrary has been presented and approved.

6. Question: How do I value "pump" oil?

Answer: You don't. You pay no royalty on oil that is used for production

operations on the same lease or unit area.

Royalty will be due when lease production is ready for market.

7. Question: Must I pay royalty if I take oil from one of my Federal (or Indian leases) to use as "pump" oil on another of my Federal or Indian leases?

Answer: Yes. You must pay royalty when you move oil from the lease (or unit area) where it is produced. Any such oil is valued in the same manner as oil sold from the lease.

8. Question: I purchased oil from one of my Federal leases to use as load oil on one of my State leases. It was several months before I recovered the load oil. In the meantime there was a price increase. The load oil was eventually sold at a higher price than I had used to compute the royalty payment. Do I now owe the Federal Government more royalty money?

Answer: No. If you paid royalty on the fair market value of the oil at the time you sold it from your Federal lease, you do not owe any additional royalty.

9. Question: Do I pay royalty on oil that is used as "frac" or load oil when it is produced from, and used for, well treatment on the same lease?

Answer: Yes. You must pay royalty on "frac" or load oil whether it is used on the same lease or on another. It must be valued *as if it had been sold from the lease* at the time it was taken for "frac" or load oil use.

But it is possible to recover most, if not all, of these royalty payments. If you promptly report the recovery and sale of oil from the treated well (by that MMS means that the first oil recovered from the well is considered the "frac" or load oil and is so reported) you may recover whichever has the lesser value:

1. The royalty you paid on what was used as "frac" or load oil; or

2. The price you get for the volume of "first" recovered oil which equals the volume of oil you used in the well treatment.

Note: In other words, recovered "frac" or load oil is valued for royalty purposes at the price for which recovered oil is sold.

10. Question: Do I still pay royalty if the load oil is not from the same lease but is instead a heavy crude that I bought elsewhere (in the private sector) and brought in to use in treating the Federal (or Indian) well? That is, may I claim an exemption from royalty payment for this load oil?

Answer: No royalty is due on that load oil you brought to the lease because it was not produced there.

Also you may claim an exemption from royalty payment on either the first oil you recover up to the value you paid

for the load oil or until you recover a volume of oil equal to the volume of load oil you used. (This oil must be valued at the price for which you sell the recovered oil from the treated well. If the value of the recovered load oil is less than what you paid for the load or treatment oil, you must absorb the loss). See Answer No. 9.

Note: MMS must approve the amount and value of equivalent load oil for which you request an exemption.

11. Question: Does this mean that I must absorb a loss if I buy condensate for well treatment and subsequently recover an equal volume of less valuable oil?

Answer: Yes. You can only recover value on the condensate as explained above in Answer No. 9. If your claim for credit against royalties is less than the cost of the load oil, the loss is yours.

12. Question: How do I value royalty oil that the Government takes "in kind" as my royalty payment—and offers for sale to eligible refiners?

Answer: Report the value of royalty-in-kind oil at the same posted price for which you sell your share of the production. (Do not pay royalty money on this RIK oil because you are already paying the royalty in oil *instead of* in value).

Note: If there is no posted price, MMS will establish a value for royalty purposes in the manner previously described in Part B of this Notice.

Report royalty oil as a separate line item on Form 9-2014, using Transaction Code 06 (Royalty In Kind) and Payment Code 04 (Amount of Royalty In Kind). MMS will use that reported value in preparing a billing to any eligible refiner who contracts to buy royalty oil.

13. Question: MMS regulations state that one of the things considered when valuing oil is "the highest price paid for a part of or for a majority of like quality oil in the same field or area." What do you mean by "field"? By "area"? By "like quality" oil?

Answer: "Field" means a geographic area situated over one or more underground oil reservoirs. Specifically, the outermost boundaries of a field encompass at least the boundaries of all underground oil reservoirs vertically projected to the land surface.

Note: Onshore fields are given names and their official boundaries are designated by state oil regulatory agencies; offshore fields are named and their boundaries are designated by MMS.

"Area" means a geologic trend, basin, or province and may contain a number of fields and may extend beyond state lines. Area boundaries are not officially

designated, and the areas are not necessarily named.

"Like quality" means near-identical oils. MMS will match the chemical and physical characteristics and the refinery processing methods of oils as closely as possible and look for the closest posted price in the same or nearest field or area.

14. Question: What is a posted price?

Answer: Posted price means the same thing as "posted field price" and is the publicly announced price that a crude buyer will pay for like quality oil from the specific field(s) or at the specific onshore terminal(s) listed in the announcement.

15. Question: If MMS establishes a fair market value for oil, how will it adjust for sulfur content and API gravity differences?

Answer: MMS tries to find a posted price schedule for like quality oil in the same field or area when it has to establish the value for oil. Those schedules also post sulfur content (sour or sweet crude oil) and contain adjustments for API gravity. Thus, whenever MMS can adopt a posted price as a fair market value base, the existing adjustments for sulfur content and API gravity will automatically apply. Otherwise, MMS will develop a price schedule with adjustments for sulfur content and API gravity.

16. Question: Sometimes there are two postings in our field for the same quality oil, and one is higher than the other. Suppose I sell my production at the lower posting. For royalty purposes do I have to value my oil at the higher posting?

Answer: Most likely. However, it depends on the situation. Before accepting any oil value for royalty purposes, MMS considers these specifics on a case-by-case basis:

1. The price actually received by you as lessee;

2. The highest price paid for some or all of a like quality crude in the same field or area (the highest posting);

3. Other prices available to you as the lessee—if any;

4. Reasonable efforts made by you, the lessee, to obtain a higher price, including a statement describing your attempts to get the higher posting;

5. Posted price schedules; and

6. Other relevant matters, including the reason you sold your oil at the lower posted price.

Note: Without knowing the specifics of a particular case, this question can only be answered generally. However, unless there is convincing evidence to support your acceptance of the lower posting, MMS would

probably require that you pay royalty on the higher posting.

17. Question: When there is more than one lessee on a lease does MMS establish different fair market values for each co-lessee or are values established for the lease as a whole?

Answer: That depends. Co-lessees may represent undivided interests in a lease or they may hold ownership in separate reservoirs producing different quality oils under the same lease. MMS must look at the value attached to each individual selling arrangement reported on Form 9-2014. Identical oil from the same lease will probably be valued identically.

Note: MMS will review each selling arrangement according to the criteria listed above in Answers 13 and 18 before making a determination.

18. Question: My purchaser does not specify the sales price until after the month of production. I receive the actual sales price too late to report it on time on Form 9-2014. How should I value my oil for royalty purposes?

Answer: This is basically a problem in reporting, not in valuing oil, because you do eventually find out the actual sales price. We recommend that you estimate the value when you first report and pay your production on Form 9-2014, then adjust it later. Your estimate and accompanying payment should be as accurate as possible to avoid possible late payment penalties.

19. Question: I produce condensate from my gas well. Only one purchaser is willing to buy it. He has offered \$23 per barrel. Another purchaser in the same area pays \$30 per barrel for larger

amounts but says that he doesn't want to bother with my small amount of oil. If I have to take the \$23 per barrel, will MMS accept the \$23 as value for royalty purposes?

Answer: MMS needs more information to answer before answering "yes" or "no". For instance: Is the \$30 per barrel the highest price paid for similar quality condensate in your field or area? Are any other prices available to you? What efforts have you made to get the higher price?

Who have you gone to? What did they tell you? What are the posted prices for condensate of your quality in your field or area? Are there other factors MMS should know? Example: Is the large purchaser a common carrier pipeline with an obligation to purchase oil from all?

20. Question: The oil I produce is low gravity, sour crude. Only one buyer has a \$23 per barrel posting for sour crude in my field. But this buyer isn't interested in buying my oil. However, another buyer has offered to buy my oil and combine it with a large volume of high gravity sweet crude. But this second buyer will only pay \$17 a barrel. Will MMS accept \$17 per barrel as fair market value for royalty purposes?

Answer: Again, MMS needs more information about your attempts to get the prevailing market price before it can determine fair market value for royalty purposes. That information is reviewed in Answer 19.

21. Question: My lease produces both a low API gravity oil (low priced oil) and condensate (high priced oil). Do I value them separately? What if they are mixed and then sold?

Answer: As a lessee you are obligated to get the highest price possible for your lease production. If you can get a better price by selling the high and low API gravity oil separately, then you must value the production separately. If you can get more by mixing (commingling) the oils, then you value the oil mixture for royalty purposes.

Note: Any commingling of oil from different reservoirs must first be approved by MMS.

22. Question: What recourse do I have—what can I do—if MMS sets a value for royalty purposes that is higher than the value I actually get?

Answer: In sequence, there are four things you can do:

1. You can take reasonable steps to receive the higher value.
2. If you can't get the higher value, you can appeal to MMS to accept the price you are getting because it reflects fair market value.
3. If MMS rules against you, you may appeal to the Department of the Interior Board of Land Appeals.
4. If that fails, you may take your case to the Federal courts.

#### List of Subjects in 30 CFR Parts 221 and 250

Crude oil valuation, Fair market value, Mineral royalties, Petroleum price regulations, Royalty-in-kind oil.

Dated: November 22, 1982.

Robert E. Boldt,

Associate Director for Royalty Management,  
Minerals Management Service.

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