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No. 92/52

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TO COUNTY ASSESSORS:

USE OF ROYALTIES TO DETERMINE ECONOMIC LIVES  
OF PETROLEUM PROPERTIES

Recently we were asked questions concerning the effect of royalty payments on the value of oil and gas producing properties. A copy of our staff response is enclosed; we hope you will find it useful.

As the title of the response indicates, we hope to add the discussion on royalty rates to the next revision of Assessors' Handbook Section 566, Valuation of Oil and Gas Producing Properties. Of course, any revision to the handbook will be subject to appropriate review by the assessors and industry and will ultimately require Board approval.

If you have questions or comments on the subject of royalty payments, please contact our petroleum specialists at (916) 445-4982.

Sincerely,

Verne Walton, Chief  
Assessment Standards Division

VW:sk  
Enclosure

June 25, 1992

PROPOSED REVISIONS TO ASSESSORS' HANDBOOK SECTION 566  
VALUATION OF OIL AND GAS PRODUCING PROPERTIES

**SHOULD ROYALTY INTEREST PAYMENTS BE CONSIDERED WHEN DETERMINING THE ECONOMIC LIFE OF A PROPERTY?**

Royalty interest payments should be considered when determining the economic life of a property.

A royalty is the amount the lessee pays to the lessor for the right to explore, develop, and produce a mineral property. For oil and gas properties, the royalty interest is expressed as a percentage of production. There are many specific types of royalties. John Campbell's Oil Property Evaluation contains their descriptions. All of the royalties on a property should be considered when evaluating the economic life.

The lessee is the working interest owner. The working interest bears the expense of producing a property. The net revenue interest is the gross working interest minus royalties. This represents the amount the working interest owner will receive from operations. If there are several parties involved in leasing a property, their individual working interest and net revenue interest numbers will represent their relative participation.

Even though the fair market value for property taxes is determined as if the property were held in fee, the duration of the income stream is constrained by the economic operating limits royalties impose. To determine the economic life, subtract the royalty payments from the cash flow, along with the other expenses. To arrive at fair market value, royalty payments are included in the income stream for the property's economic life, and discounted at an appropriate rate.

From the perspective of the working interest owner, the royalty is an expense paid to operate the lease. This payment is free and clear of any expenses related to the property. It effects the revenues received by the lessee and the proved reserves of the property. Assuming the lessee has a profit motive, when the property exhausts its potential to generate a positive cash flow production concludes. Physically, the property may be capable of producing for several more years, however, economic operating conditions make continued production unattractive. When economic operating conditions precipitate the abandonment of a property, it has reached the end of its economic life.

**SHOULD ROYALTY PAYMENTS BE EXCLUDED WHEN DETERMINING FAIR MARKET VALUE FOR PROPERTY TAXES?**

No. The use of the royalty payment in determining the economic life is not the same as excluding it from the income stream. The use of the payment is to determine at what point the controlling party will terminate operations. Proper appraisal techniques, for property taxes, add the royalty interest

income to the income to be capitalized. This method does not conflict with Board Rule 8(c), exclusions to gross outgo. The purpose of adding back the royalty payment to the cash flow is to account for all the revenue the property produces when determining its taxable value.

Board Rule 8 does not forbid the use of royalty payments to determine the economic life of the property. Section (c) says "[t]he amount to be capitalized is the net return which a reasonably well informed owner and reasonably well informed buyers may anticipate on the valuation date that the taxable property existing on that date will yield under prudent management. . . ." In section 8(b) the present worth of the income stream is defined as being dependent ". . . upon the size, shape, and duration of the estimated stream . . . ." (Emphasis added.) In this case, the duration can be inferred to mean economic life.

**IS THERE A LEVEL OF ECONOMIC ROYALTIES, SIMILAR IN CONCEPT TO ECONOMIC RENT, FOR PETROLEUM PROPERTIES?**

The concept of economic royalties or rent should be considered in accordance with Rule 8(e), but may not be applicable to most oil and gas properties. The royalties negotiated between the lessee and lessor generally reflect the value of information available about or expectations for the property at that time. If a property is along a well-developed geological trend, then the mineral owner has potential leverage to negotiate better terms. If less information is known about a property, the royalty rate will tend to occur within a well-established range, usually 1/8 to 1/4. A 1/8 royalty was considered to be standard up until the mid 1970's. Since then, royalties of 3/16 or 1/4 are not uncommon. The important point here is that once the royalty has been negotiated, it remains in effect for the life of the property. There generally are no provisions for the lessor to renegotiate the royalty. Oil and gas leases are in perpetuity. This is known as the habendum clause of a lease. The lessee retains control of the mineral rights until operations cease, and the property is abandoned.

As opposed to residential and commercial properties, there is no principle of substitution for mineral properties. The occurrence of minerals is specific to location. Prospective lessees or purchasers do not decide to go elsewhere. The lessee's goal is to negotiate the best terms possible; and if these terms make the property uneconomic, then the lessee will decline to lease it.

It is possible the subject property may have a sliding scale royalty. The use of a sliding scale is more prevalent in international operations; however, with the recent decline in petroleum prices the federal government reduced its royalty rates on some stripper wells to avoid premature abandonment. If this occurs, new reserves should be added to reflect the extension of the property's economic life.