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How to Value an Oil and Gas Mineral Royalty Interest

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Well-informed buyers and sellers are critical to an efficient market for royalty interests because there is a specialized and relatively complex body of knowledge to consider in the transfer of these types of assets.

Often called a net revenue interest (NRI), royalty interests do not bear the costs of production and only participate in the potential upside of a resource. The value of a royalty interest, however, is often difficult to observe because they are typically closely held. In addition, once discovered and drilled, the natural resources are physically depleted, resulting in a declining asset as opposed to a growing one.

A lack of knowledge regarding the worth of a royalty interest can be very costly. A shrewd buyer may offer a bid far below the interest's fair market value, opportunities for successful liquidity may be missed, or estate planning could be incorrectly implemented based on misunderstandings about value.

Understanding how royalty interests are properly appraised will ensure that you maximize the value of your royalty, whenever and however you decide to transfer it.

This blog post summarizes our whitepaper – providing an informative overview of the valuation of mineral royalty interests within the oil and gas industry. While there are a myriad of factors (mostly out of a royalty holder's control) impacting the economics of a royalty interest, this blog post focuses on valuation methodology.

What Does the Valuation Process Entail?

Valuation approaches refer to the basis upon which value is measured.

There are three commonly accepted approaches to determining value:

» Asset-based Approach

» Market Approach

» Income Approach

In the realm of business valuation, each approach incorporates procedures that may enhance awareness about specific economic attributes that may be relevant to determining the final value of a given entity.

Ultimately, the concluded valuation will reflect consideration of one or more of these approaches (and perhaps several underlying methods) as being most indicative of value for the subject interest under consideration. However, due to fundamental structural differences between businesses and assets, the available valuation methodologies tend to be utilized differently when valuing royalty interests.

The Asset-Based Approach

The asset-based approach can be applied in different ways, but the general idea is that the enterprise value of a business is given by subtracting the market value of liabilities from the market value of assets. While the asset-based approach can be useful when valuing companies operating within the oil and gas industry, this approach is not typically employed to determine the value of a royalty interest.

Oftentimes a mineral royalty owner purchased land which included the mineral rights and an allocation of surface vs mineral rights was not performed. Additionally, considerable time may have passed between the time the surface and mineral rights were purchased and the valuation date. Adding to the ambiguity of the cost basis of the asset, mineral royalty interests are often family assets that are handed down for generations. For this reason, the asset-approach is rarely used to determine the market value of mineral royalty interests unless the mineral rights were recently purchased.

The Market Approach

The market approach utilizes transaction pricing from guideline transaction data or valuation multiples from a group of publically held companies to determine the value of a privately held enterprise or asset. To develop an indication of mineral royalty interest value using the market approach, you can utilize data from market transactions of mineral interests in similar plays. This data can be derived from direct transactions of mineral royalty interests or from publically traded royalty trusts and partnerships.

Direct comparable transactions of mineral royalty interests are often the best indication of fair market value. However, the data with which to benchmark a subject mineral royalty interest against is often unavailable. If it is available, a careful comparative analysis must be made. Royalty trusts and partnerships hold various mineral royalty interests in wells operated by large exploration and production companies. Royalty trusts and partnerships tend to have very low, if any, operating expenses and can be an investment to provide exposure to oil and gas prices.

Acquisition data from these trusts can be utilized to calculate valuation multiples on the subject royalty's performance measure(s). This will often provide a meaningful indication of value as it takes into account industry factors (or at least the market participants' perception of these factors) far more directly than the asset-based approach or income-based approach.

Traditional oil and gas earnings multiples, such as EV/EBITDAX, should not be used to calculate indication of values because royalty trusts do not have high operating costs and operational earnings margins are not a necessarily meaningful indication of performance for a royalty owner. Rather, a royalty trust's performance can be better understood by its distribution yield and potential for future revenue streams from new, undrilled wells.

In many ways, this approach goes straight to the heart of value: a mineral royalty is worth what someone is willing to pay for it. However, the market approach is not a perfect method by any means for businesses or for mineral royalties.

Royalty trust transaction data may not provide for a direct consideration of specific mineral royalty characteristics; it is imperative that the value conclusion be adjusted for differences in value level and in well economics, potential future drilling locations, among other factors. In any valuation, the more comparable the transactions are, the more meaningful the indication of value will be.

The Income Approach

The income approach can be applied in several different ways. Generally, such an approach is applied through the development of a cash flow or ongoing earnings figure and the application of a multiple to those earnings based on market returns. For mineral royalty interests, however, we oftentimes perform a discounted cash flow analysis. This approach allows for the consideration of characteristics specific to the subject mineral royalty, such as its well economics making it the most commonly used approach for mineral royalty interest valuations.

To perform a royalty's DCF analysis, production levels must be projected over the well's useful life. Given that well production decreases at a decreasing rate, these projections can be calculated through deriving a decline rate from historical production. Revenue is a function of both production and price; as such, after developing a legitimate prediction of production volumes, analysts must predict future price values. The stream of revenue is then discounted back to present value using a discount rate that accounts for risk in the industry.

Because revenue cash flows are the main driver of mineral royalty values, the income approach is the most reasonable and supportable valuation approach when determining the value of a mineral royalty interest.

Conclusion

A proper valuation of a mineral royalty interest will factor, to varying degrees, the indications of value developed utilizing the market-based and income-based approaches outlined above. A valuation, however, is much more than the calculations that result in the final answer. It is the underlying analysis of the mineral royalty and its unique characteristics that provide relevance and credibility to these calculations. This is why industry "rules-of-thumb" are dangerous to rely on in any meaningful transaction.

Such "rules-of-thumb" fail to consider the specific characteristics of an interest and, as such, often fail to deliver insightful indications of value. A mineral royalty owner executing or planning a transition of ownership can enhance confidence in the decisions being made only through reliance on a complete and accurate valuation of the interest.

Mercer Capital's Oil & Gas team has extensive experience valuing mineral royalty interests. Despite attempts to homogenize value through the use of simplistic rules of thumb, our experience is that each valuation is truly unique given the purpose for the valuation and the circumstances of the interest. We hope this information, which admittedly only scratches the surface, helps you better shop for royalty valuation services and understand valuation mechanics.

We encourage you to extend your wealth planning dialogue to include valuation of any mineral interests because, sooner or later, a valuation is going to happen. Proactive planning and valuation services can alleviate the potential for a negative surprise that could complicate an already stressful time in your personal life.