

WEST VIRGINIA STATE TAX DEPARTMENT

Administrative Notice 2003-17

SUBJECT: **Property Tax** -- State Tax Commissioner's Statement for the Determination of the Capitalization Rates for Producing and Reserve Coal, Oil and Gas and Other Mined Minerals for Property Tax Purposes for Tax Year 2003, Pursuant to §§ 110 CSR 1I-4.1.7, 1J-4.5 and 1K-4.1.7.

On August 30, 2002, the State Tax Department filed valuation variables to be used in conjunction with legislative rules for the appraisal of producing natural resource properties. (See: §§ 110 CSR 1?I, 1?J and 1?K) This notice will address one of the variables, the capitalization rate, setting forth the generally accepted appraisal procedures used in developing the respective rates and in applying the rates to income streams generated by natural resource properties. To this end, this notice will discuss development of industry capitalization rates for properties containing coal, and/or oil and gas, and/or other mined minerals.

DISCUSSION

The International Association of Assessing Officers text *Property Appraisal and Assessment Administration*, 1990, defines a capitalization rate as: "Any rate used to convert an estimate of income to an estimate of market value; the ratio of net operating income to market value." In other words a rate used to convert an estimate of future income into an estimate of present value.

Generally, there are three (3) components that must be considered and if appropriate developed and included in an overall capitalization rate. These components are: the discount component, the recapture component, and the property tax component. The development of each of these three (3) components will be discussed in the remainder of this Notice.

DISCOUNT COMPONENT

Of the three (3) generally accepted methods of estimating a discount component, the bands-of-investment method and the summation method have received primary consideration. Consideration was given to use of the comparison method; however, the Tax Department is of the opinion that the bands-of-investment and summation methods are the more appropriate methods to employ for properties containing coal, and/or oil and gas, and/or other mined minerals as there are a limited number of sales of these types of properties and these methods lend themselves more readily to the conversion of the equity rate portion of the discount component to a pre-tax rate.

The first step in the process is to construct a capital structure. The capital structure of an industry depicts typically the sources of capital financing (i.e.: what portion of the total capital financing is raised through debt and through equity financing). The Tax Department developed an average industry capital structure based on mining and oil and gas industries as grouped in Moody's Industrial Manual and the Value Line Investment Survey. The capital structure was segregated into percentages of capital financing generated through debt and through equity financing in order to develop a profile for typical leveraging characteristics by type industry. (Equity financing represents capital acquired through sale of stock and earnings retention and debt financing represents capital acquired through issuance of instruments of debt.)

Once the capital structure had been established a return on investment is developed for each financing band. The Tax Department analyzed the financial information of companies grouped by industry in the Value Line Investment Survey in order to develop a return by type industry for

common stocks. This "after-tax" return was then adjusted to a "pre-tax" return where applicable and used in developing the equity portion of the discount component.

The debt return for the debt finance band was established, for each industry, through analysis of loan rates extracted from questionnaires received from lending institutions. Once a safe rate and a risk rate are developed from the previously mentioned analysis, a management rate (for management of investment portfolios), a nonliquidity rate (time required to sell the investment), and an inflation rate (rate used to adjust the discount component to a real rate net of inflationary expectations) are estimated. A synthesis of these rates (as illustrated in [Attachment I](#)) is then used to develop the discount component.

RECAPTURE COMPONENT

The discount component previously discussed provides an investor with a rate of return-on-investment (interest). The second capitalization rate component, recapture, provides the investor with a return-of-investment principal (i.e.: provides an estimate of return necessary for the investor to recover the principal invested). Once a capitalization rate has been developed for coal, oil and gas, and other mined mineral properties, the income series is discounted to present worth through selection of a multiplier(s) extracted from a standard mid-year life Inwood table. The Inwood table has a factor for recapture built into the table coefficients thus removing the need to separately accommodate for recapture in the capitalization rate.

PROPERTY TAX COMPONENT

The third component, property taxes, was derived by multiplying the assessment rate by the statewide average of tax rates on Class III property. Tax Department research indicates that in addition to royalty rates negotiated in producing coal property leases, property taxes are customarily paid by the coal producer. Thus the capitalization rate for producing coal properties does not contain a property tax component as the income stream does not contain income to be used to pay property taxes.

APPLICATION

The summation of the previously discussed components (i.e.: discount, recapture, and property tax components) yields a reasonable estimate for the overall capitalization rate. The overall capitalization rate is used to select the factor(s) from a standard mid-year life Inwood table (i.e.: present worth of one (1) per period) that converts the income stream(s) into an estimate of present worth.

For more information concerning the development of capitalization rates for producing natural resource properties see §§ 110 CSR 1-I, 1-J and 1-K, or contact the State Tax Department at (304) 558-3940.

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[Attachment 1](#): (7 Pages - PDF Format)