

# WEST VIRGINIA STATE TAX DEPARTMENT

## Administrative Notice 2002-08

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**SUBJECT: Property Tax --** State Tax Commissioner's Statement for the Determination of the In-Place Tonnage Per Acre-Foot of Coal and Other Natural Resources.

On April 6, 1999, the State Tax Department filed Legislative Rules for the appraisal of coal properties and other natural resource properties (See §§ 110 CSR 1I-1 and 1K-1 et seq.). This notice will address these Rules' use of the in-place tonnage per acre-foot for coal properties, referenced in § 110 CSR 1I-3.59 and for other natural resource properties, referenced in § 110 CSR 1K-3.27.

### DISCUSSION

The specific gravity<sup>1</sup> of bituminous coal ranges between 1.15 and 1.5 depending on rank, moisture content, and ash content, and averages 1.32. The Legislative Rules equation for the determination of tons per acre-foot is as follows:

$$\frac{62.4 \text{ lbs water per ft}^3 \text{ water} \times 43,560 \text{ ft}^3 \text{ per acre-ft.} \times \text{natural resource specific gravity}}{2000 \text{ lbs/ton}} = \text{tons per acre-ft.}$$

Substituting the specific gravity of coal into the formula we find that there are approximately 1800 tons of coal in place per acre-foot as follows:

$$\frac{62.4 \times 43,560 \times 1.32}{2000} = 1,793.97 \text{ or } 1800 \text{ tons per acre-ft.}$$

It should be noted here that the 1800 tons per acre-foot establishes a benchmark for determination of a recovery rate. If the specific gravity of coal being mined is less than or greater than 1.32 then the recovery rate per acre mined should be adjusted accordingly, thus eliminating the potential of inaccurate calculations of acres mined.

Similar calculations for other mined minerals yield the following results:

Limestone	=	3600 acre-ft.
Sandstone	=	3400 acre-ft.
Clay/Shale	=	3250 acre-ft.
Sand/Gravel	=	2400 acre-ft.
Salt	=	2950 acre-ft.

For more information concerning the development of the in-place tonnage of natural resource properties see §§ 110 CSR 1I-1 and 1K-1 et seq. or contact the State Tax Department at (304) 558-3940.

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<sup>1</sup>specific gravity - The ration of the weight of an object in air to the weight of an equal volume of water