



STATE OF WEST VIRGINIA

Department of Revenue  
State Tax Department

COPY

Earl Ray Tomblin  
Governor

Craig A. Griffith  
State Tax Commissioner

ADMINISTRATIVE NOTICE 2011-04

**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.

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The Legislative Rules filed by the State Tax Department became effective on May 1, 1999 (see §§ 1K-1, *et seq.*) and May 1, 2006, (see §§ 110 CSR 11-1, *et seq.*) for the appraisal of coal properties and other natural resource properties. This notice will address these Rules' use of the in-place tonnage per acre-foot for coal properties, referenced in § 110 CSR 11-3.59 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 Rule's equation for the determination of tons per acre-foot is as follows:

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

$$2000 \text{ lbs./ton}$$

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:

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

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


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 11-1 and 1K-1 et seq. or contact the State Tax Department at (304) 558-3940.

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West Virginia State Tax Department

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Operator on Duty 8:30 am - 5:00 pm  
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