

**RULES
OF
TENNESSEE STATE BOARD OF EQUALIZATION**

**CHAPTER 0600-11
APPRAISAL OF PARCELS WITH MINERAL RESERVES**

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0600-11-.01 PURPOSE.

The purpose of these rules is to outline policies and procedures for the appraisal of mineral interests subject to property taxation. These rules replace the Mineral Appraisal Section of the State of Tennessee Assessment Manual approved by the State Board of Equalization in 1972.

Authority: T.C.A. §§ 67-1-305 and 67-5-502(d). **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.02 APPLICABILITY.

These rules apply to parcels of real property classified as having either (1) active mineral reserves; (2) depleted mineral reserves; (3) inactive measured mineral reserves; or (4) inactive indicated mineral reserves. These rules do not apply to severed mineral rights or parcels classified as having minerals not subject to appraisal.

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-601(d). **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.03 DEFINITIONS.

As used in these rules, unless the context otherwise requires:

- (1) "Active mineral reserves" mean those properties where actual production of the minerals being valued has occurred within one (1) year prior to the assessment date.
- (2) "Assessment date" is defined in T.C.A. § 67-5-504(a).
- (3) "Depleted mineral reserves" mean those properties with mineral reserves that have been determined to be depleted by prior extracting operations and that are not mineable and merchantable by current technology.
- (4) "Farm property" is defined as in T.C.A. § 67-5-501(3).
- (5) "Growing crops" is defined as in T.C.A. § 67-5-216(a).

(Rule 0600-11-.03, continued)

- (6) "Inactive measured mineral reserves" mean those properties that contain presently extractable and merchantable minerals that are not currently being extracted. Reliable evidence must indicate that the minerals could be extracted or used in the manufacture of other products by judicious methods under present economic, technical and legal conditions.
- (7) "Inactive indicated mineral reserves" mean those properties on which no mining, drilling or other reliable evidence establishes the presence of the minerals in quantities or quality suitable for immediate economic development, but reliable geological data supports the assumption of mineral reserves with potential contributory value.
- (8) "Industrial and commercial property" is defined as in T.C.A. § 67-5-501(4).
- (9) "Mineral" means any substance with economic value, whether organic or inorganic, which can be extracted from the earth, including industrial minerals but excluding products of the soil. The term mineral includes, but is not limited to, barite, bauxite, clay, coal, copper, dolomite, dimension stone, feldspar, fluorspar, gold, iron, lead, manganese, marble, natural gas, oil, perlite, phosphate, pyrites, sandstone, shale, silica, silver, strontium, tin, titanium, zinc, and zirconium. The term mineral does not include growing crops.
- (10) "Minerals not subject to appraisal" mean limestone, sand and gravel in accordance with T.C.A. § 67-5-601(d).
- (11) "Operator" means any person responsible for the day-to-day operation of a mine or oil and gas well by reason of contract, lease or operating agreement or any person owning an unleased producing mine or well operated by the owner thereof.
- (12) "Subclass," "subclassified," and "subclassification" mean the classification of real property as public utility property, industrial and commercial property, residential property or farm property as defined in T.C.A. § 67-5-501 and in accordance with T.C.A. § 67-5-801(a).
- (13) "Unit" means the total area incorporated in a unitization agreement providing for a consolidated development and operational plan to recover oil and/or gas from the areas incorporated within the unit.

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-601(d). **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.04 CLASSIFYING PARCELS WITH MINERAL RESERVES.

- (1) Properties identified as having mineral reserves shall be classified into one of the following categories:
 - (a) Active Mineral Reserves;
 - (b) Depleted Mineral Reserves;
 - (c) Inactive measured mineral reserves;
 - (d) Inactive indicated mineral reserves; or
 - (e) Minerals not subject to appraisal.
- (2) Factors to be considered in evaluating mineral reserves include inherent mining and drilling hazards, regulatory restrictions, and market conditions.

(Rule 0600-11-.04, continued)

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-601(d). **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.05 DISCOVERY.

- (1) The primary source for discovering parcels with mineral reserves is the mineral interest statement/declaration mineral owners must file with the Assessor in the county in which the interest is located in accordance with T.C.A. § 67-5-804(b).
- (2) The following additional sources are recommended for use whenever possible:
 - (a) Permit applications filed with the Tennessee Department of Environment and Conservation;
 - (b) Permit applications filed with the federal Office of Surface Mining;
 - (c) Severance tax returns filed with the Tennessee Department of Revenue;
 - (d) Business license records maintained by county clerks;
 - (e) On-site inspections; and
 - (f) Discussions with owners and producers.

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-804. **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.06 VALUATION AND SUBCLASSIFICATION OF ACTIVE MINERAL RESERVES GENERALLY.

- (1) In most cases, the income approach constitutes the most appropriate method to value mineral reserves due to the inapplicability of the cost approach and the lack of sufficient market data to process a reliable sales comparison approach. In situations where sufficient market data exists, the Assessor should prepare both an income and sales comparison approach and correlate the indications of value in the same manner as when appraising non-mineral properties.
- (2) Typically, the discounted cash flow analysis ("DCF") will be the preferred method when processing an income approach. Special considerations exist when using a DCF, or any other income approach technique, to value mineral reserves. Unlike other types of income-producing properties, minerals are a depleting asset. Additionally, the discount rate used to capitalize net income into an estimate of value may be higher than the discount rate used in other situations due to the higher degree of risk inherent in extracting minerals. Moreover, the reversionary value of a parcel with mineral reserves may be minimal or nonexistent due to the fact that the minerals have been depleted and only wasteland may remain, requiring additional costs for reclamation. Finally, the investor's income stream is dependent upon factors that cannot be controlled as easily as in other settings.
- (3) The DCF measures the present worth of the right to receive a series of cash payments over a given period of time (economic life). The basic elements normally required for this type of appraisal method are the determination of: 1) net annual income based on production history, economic royalty rates and consideration of allowable expenses; (2) remaining economic life of the reserves; and (3) the rate at which the income is discounted to present worth (the discount rate). The projected net annual income is discounted over the remaining economic life to yield an estimate of the present net worth of the active reserve.

(Rule 0600-11-.06, continued)

- (4) In most cases, the land and buildings in the area permitted for the mining or drilling operations will be subclassified as industrial and commercial property. The remaining portion of the tract will typically be subclassified as farm property unless it is being used for another purpose. In that event, the use of the property will determine the proper subclassification.

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-801. **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.07 VALUATION OF ACTIVE MINERAL RESERVES – COAL.

- (1) The Assessor shall value coal reserves by compiling the information necessary to complete the spreadsheet or a facsimile in Appendix A.
- (2) In order to complete the spreadsheet in Appendix A, the Assessor shall utilize the following procedure to the extent practicable:
 - (a) Contact the Office of Surface Mining (“O.S.M”), or other appropriate entity, to obtain the coal production for the permitted area for prior years;
 - (b) Contact the O.S.M., or other appropriate entity, for information concerning: new permits, the Inspectable Units List, current coal producers, permit information, renewed permit list, pending permits, successor list, and listings in the Applicant/Violator System;
 - (c) Contact each coal producer or owner for the royalty rate per the permit;
 - (d) Estimate a discount rate and management allowance utilizing the best available market data;
 - (e) Estimate the economic life of the mine after consideration of the issue date of the permit, the year production began, the total production over the life of the permit and the anticipated production of the life of the mine; and
 - (f) Reduce the indicated value by the appraisal ratio for the tax year and jurisdiction under review.
- (3) Where necessary, such as when market data is limited or unavailable, the Assessor shall utilize appraisal judgment so long as it is reasonably designed to arrive at the market value of the mineral reserves being appraised.
- (4) The Assessor’s estimates shall be presumed indicative of market rates and the resulting market value absent evidence from the Taxpayer supporting different assumptions for the particular reserves being appraised. In order to rebut the presumption, the Taxpayer must provide the Assessor with either market data or information specific to the reserves being appraised. Mere criticism of the Assessor’s methodology is not sufficient by itself to overcome the presumption of correctness.
- (5) The following example illustrates how Assessors should value a parcel with active mining of coal reserves:

Assume that a coal mine is found to have 50,000 tons of reserves in place. Its production history establishes that annual production is 10,000 tons. This would indicate an economic life of five years ($50,000 \div 10,000 = 5$). Assume an economic royalty rate of \$2.00 per ton, allowable expenses of 10% of gross income and a discount rate of 16%. The following calculation demonstrates how to calculate the present worth of the reserve:

(Rule 0600-11-.07, continued)

10,000	--	annual production in tons
<u>x 2.00</u>	--	economic royalty in dollars
\$20,000	--	gross annual income
<u>-2,000</u>	--	allowable expenses in dollars
\$18,000	--	net operating income
<u>x 3.274294</u>	--	the present value of the right to receive \$1 per period for five years at a 16% discount rate
\$58,937	--	present net worth of reserve

The above example assumes a level annuity, which would be appropriate for a coal mine where the coal is being mined at a constant rate.

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-801. **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.08 VALUATION OF ACTIVE MINERAL RESERVES – OIL AND GAS WELLS.

- (1) The Assessor shall value oil and gas wells by compiling the information necessary to complete the spreadsheet or a facsimile in Appendix B.
- (2) In order to complete the spreadsheet in Appendix B, the Assessor shall utilize the following procedure to the extent practicable:
 - (a) In order to determine the appropriate integration of separately owned and leased parcels that are unitized into drilling and production units, the Assessor shall send operators an annual schedule or questionnaire to determine the identity, address and percentage of ownership of each parcel comprising the unit from which oil and/or gas is being recovered;
 - (b) Contact the Tennessee Board of Water Quality, Oil and Gas, or other appropriate entity, to obtain the previous year's production for each oil and gas well and the average cost per barrel;
 - (c) Estimate an appropriate discount rate and decline rate for each well by reviewing the best available market data and factors relevant to the individual well being appraised;
 - (d) Update the total production for each well;
 - (e) Prepare separate oil and gas appraisals for each well;
 - (f) Reduce the indicated value by the appraisal ratio for the tax year and jurisdiction under review; and
 - (g) Allocate the equalized values for each well between all parcel owners based upon their percentage of ownership.
- (3) Where necessary, such as when market data is limited or unavailable, the Assessor shall utilize appraisal judgment so long as it is reasonably designed to arrive at the market value of the oil and gas wells being appraised.
- (4) The Assessor's estimates shall be presumed indicative of the market absent evidence from the Taxpayer supporting different assumptions for the particular reserves being appraised. In order to rebut the presumption, the Taxpayer must provide the Assessor with either market data or information specific to the reserves being appraised. Mere criticism of the Assessor's methodology is not sufficient by itself to overcome the presumption of correctness.

(Rule 0600-11-.08, continued)

- (5) The following example illustrates how Assessors should value a parcel with active oil and gas reserves:

Assume that an oil well has an economic life of five years, a decline rate of 20%, an initial annual net income of \$5,000, and a discount rate of 16%. The present net worth of the reserve would be calculated as follows:

Present Worth of 1

<u>Year</u>	<u>Net Annual Income</u>		<u>Discount Factor</u>		<u>Discounted Value</u>
1	\$5,000	x	.862069	=	\$4,310.34
2	\$4,000	x	.743163	=	2,972.65
3	\$3,200	x	.640658	=	2,050.11
4	\$2,560	x	.552291	=	1,413.86
5	\$2,048	x	.476113	=	<u>975.08</u>
Present Worth					= \$11,722.04

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-801. **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.09 VALUATION OF ACTIVE MINERAL RESERVES OTHER THAN COAL, OIL OR GAS.

Consistent with these rules, the Assessor may utilize whatever appraisal methodology appears most appropriate in a particular situation so long as the methodology is reasonably designed to arrive at the market value of the mineral reserves being appraised.

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-801. **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.10 VALUATION AND SUBCLASSIFICATION OF DEPLETED MINERAL RESERVES.

- (1) Since any remaining mineral reserves have no contributory value, such parcels will normally be subclassified as farm property and valued according to the rural land schedule utilized by the county where the property is located.
- (2) Where extraction of the mineral(s) has damaged the land and reduced its market value, the estimate of market value should be adjusted to reflect the loss in value.
- (3) When a parcel with depleted mineral reserves has been converted to an alternative industrial or commercial use, it will normally be subclassified as industrial and commercial property and valued assuming such a highest and best use.

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-801. **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.11 VALUATION AND SUBCLASSIFICATION OF INACTIVE MEASURED MINERAL RESERVES.

Parcels falling within this classification shall be valued and subclassified in the same manner as parcels with active mineral reserves.

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-801. **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.12 VALUATION AND SUBCLASSIFICATION OF INACTIVE INDICATED MINERAL RESERVES.

- (1) Mineral reserves that cannot be reliably measured have no contributory value for property tax purposes.
- (2) Parcels with inactive indicated mineral reserves should be valued and subclassified without consideration of any mineral reserves.

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-801. **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.13 QUESTIONNAIRES AND REPORTING SCHEDULES.

- (1) When necessary, the Assessor may send operators and/or other holders of mineral interests annual questionnaires and/or reporting schedules designed to obtain information necessary to identify and appraise mineral reserves.
- (2) In the event an operator or holder of a mineral interest fails to complete and return a questionnaire or reporting schedule after a reasonable opportunity to do so, the Assessor may either (a) assume the prior year's operating history is representative of future years' production; or (b) make any necessary estimates based upon available market data and the operating history of similar mines and/or wells.
- (3) The Assessor's estimates shall be presumed indicative of market rates and the resulting market value absent evidence from the Taxpayer supporting different assumptions for the particular reserves being appraised. In order to rebut the presumption, the Taxpayer must provide the information requested in the questionnaire and/or reporting schedule that was not completed and returned. Mere criticism of the Assessor's estimates is not sufficient by itself to overcome the presumption of correctness.

Authority: T.C.A. §§ 67-1-305 and 67-5-303. **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.14 MAINTENANCE.

Unlike other types of real property, mineral properties are subject to depletion, which may cause the value of a parcel to diminish each year as reserves are extracted. Conversely, it is also possible for the mineral value of a parcel to increase due to market conditions, technological advances, and the discovery of additional reserves. Such factors necessitate the annual review of mineral assessments by Assessors.

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-504(a). **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.15 ASSESSOR'S RECORDS.

The Assessor shall note on the property record card all instances when mineral reserves have been assessed. Although no particular format must be used due to the various assessment systems employed throughout Tennessee, mineral assessments should be readily identifiable by utilization of a special interest card, property identifier, or the equivalent.

Authority: T.C.A. §§ 67-1-305, 67-5-502(d) and 67-5-804. **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.

0600-11-.16 EFFECTIVE DATE.

After this chapter takes effect, these rules shall apply to the tax period beginning January 1, 2017 and all subsequent tax periods.

Authority: T.C.A. §§ 67-1-305 and 67-5-504(a). **Administrative History:** Original rule filed April 25, 2017; effective July 24, 2017.