

OIL AND NATURAL GAS PROPERTY TAX ASSESSMENT

June 27, 2024

TEAM 
KENTUCKY



The Process of Valuing Oil/Natural Gas

- **The Commonwealth uses an income approach to value, wherein the taxable value of a gas/oil well is based on the estimated present worth of an expected income stream.**
 - **This value is to be no more than the fair-market value of the property. (KRS 132.820)**
 - **The income approach allows the Department to be market responsive, based on current prices, and available up-to-date financial information.**

A Brief History

- **In 1995, Department of Revenue employees and the Kentucky Oil and Gas Association (KOGA) representatives had several meetings regarding how best to calculate the fair-cash value of the mineral rights in the Commonwealth.**
 - **These meetings updated the calculation of the taxes from the 1966 agreement between the Department and KOGA.**
 - **The system developed by the Commonwealth in 1995 was still used until 2017.**

A Brief History

- **In 2018, the Department met again with representatives from KOGA to review and finalize a procedure for updating the factors used in valuating the gas/oil mineral rights.**
 - **Using available market data makes the factors more market-responsive that fluctuate as the market does.**
 - **The conclusion was to adopt a procedure very similar to what was in place, along with looking at multiple market sources as a survey and average the results to come to an annual factor for calculating fair-market value of the property.**

A Brief History

- **Another aspect of valuation that had not been considered in 1995, regarding gas/oil property was the income/production reported to the Department to arrive at the cost per unit.**
 - **As part of the modernized procedure in place, the Department now reviews and adjusts the cost per unit for gas and oil as reported by the producers/operators to the the Severance Tax Branch.**
 - **A standard 3-year weighted average is used to help even out spikes (up or down).**
 - **This allows the Department to base the factor on current prices with the most current financial information.**

The Formula

- **The market sources for the CAP Rate used by the Department are listed below:**
 - **West Virginia – Band of Investment and Summation Technique**
 - **Texas Comptroller of Public Accounts Industry Study (WACC)
(18 companies)**
 - **Society of Petroleum Evaluation Engineers (SPEE)
(32 companies)**
 - **Damodaran Industry Study through NYU (330 companies)**

The Formula

- **As you can see, a lot of work goes into the assessment valuation process, but as for what taxpayers see, it comes down to the formula.**
 - **The assessment valuation of each owner is the net income for the well multiplied by the owned interest and factor.**
 - **$INT \times \$Net\ Income / MCF\ Production\ Volume\ Units \times FACTOR = NET\ PRESENT\ VALUE$**

The Formula

$$\text{INT} \times \$\text{NI/MCF} \times \text{FACTOR} = \text{NET PRESENT VALUE}$$

2024 Factors		
	Gas	Oil
All	2.93648	2.694571
Working	2.664023	2.524643
Royalty	4.843678	3.884067

- **Examples:**
 - **Working Oil Interest: \$10,000 x 87.5% x 2.52463 = \$22,090.63**
 - **Royalty Gas Interest: \$6,500 x 12.5% x 4.843678 = \$3,935.49**

The Formula – Factor for Working Int GAS

GAS - WORKING					
INT	0.875				
\$NI/MCF	2.09				
FACTOR	2.664023				
NPV	4.87				
CAP. RATE	0.14028				
DECL. RATE	0.04				
YEAR	7/8 GROSS @ \$NI/MCF	OPERATING EXPENSE	NET INCOME	DISCOUNT @ DISC RATE	PRESENT WORTH
1	1.83	0.82	1.01	0.876981	0.88
2	1.76	0.79	0.97	0.769096	0.74
3	1.69	0.76	0.93	0.674483	0.63
4	1.62	0.73	0.89	0.591509	0.53
5	1.55	0.70	0.85	0.518743	0.44
6	1.49	0.67	0.82	0.454928	0.37
7	1.43	0.64	0.79	0.398963	0.31
8	1.37	0.62	0.76	0.349883	0.26
9	1.32	0.59	0.73	0.306841	0.22
10	1.27	0.57	0.70	0.269094	0.19
11	1.22	0.55	0.67	0.235990	0.16
12	1.17	0.53	0.64	0.206959	0.13
			NET PRESENT VALUE		4.87

INT x \$NI/MCF x FACTOR = NET PRESENT VALUE					
					4.87
	0.875 x	2.09 x	2.664023 =		

NET PRESENT VALUE / YEAR 1 GROSS @ \$NI/MFC = FACTOR					
					2.664023
	4.87 /	1.83 =			

The Formula – Factor for Royalty Int GAS

GAS - ROYALTY/OVERRIDE						
INT	0.125					
\$NI/MCF	2.09					
FACTOR	4.843678					
NPV	1.27					
CAP. RATE	0.14028					
DECL. RATE	0.04					
YEAR	1/8 GROSS @ \$NI/MCF	OPERATING EXPENSE	NET INCOME	DISCOUNT @ DISC RATE	PRESENT WORTH	
1	0.26	0.00	0.26	0.876981	0.23	INT x \$NI/MCF x FACTOR = NET PRESENT VALUE
2	0.25	0.00	0.25	0.769096	0.19	0.125 x 2.09 x 4.843678 = 1.27
3	0.24	0.00	0.24	0.674483	0.16	
4	0.23	0.00	0.23	0.591509	0.14	
5	0.22	0.00	0.22	0.518743	0.12	
6	0.21	0.00	0.21	0.454928	0.10	
7	0.20	0.00	0.20	0.398963	0.08	
8	0.20	0.00	0.20	0.349883	0.07	
9	0.19	0.00	0.19	0.306841	0.06	
10	0.18	0.00	0.18	0.269094	0.05	NET PRESENT VALUE / YEAR 1 GROSS @ \$NI/MCF = FACTOR
11	0.17	0.00	0.17	0.235990	0.04	1.27 / 0.26 = 4.843678
12	0.17	0.00	0.17	0.206959	0.03	
			NET PRESENT VALUE		1.27	

2024 Gas Assessment Guidelines

2024 Gas Assessment Guidelines

The following steps and examples explain how to calculate the gas property tax assessment values. Assessments are calculated only for active leases.

Step 1 Determine the total dollar value (less Severance Tax) paid for the natural gas produced from your lease/well for the twelve months prior to the January 1 assessment date.

Step 2 Determine your correct decimal interest of ownership in the lease/well.

Step 3 Select your appropriate departmental gas property assessment factor. The current gas assessment factors are:

“All” Interest Factor = 2.93648

Working Interest Factor = 2.664023

Royalty and Overriding Interest Factor = 4.843678

Step 4 Determine any appropriate allowance credit to be used in the gas assessment formula. The allowance credits are as follows:

First year gas production = 0.33

Second year gas production = 0.67

All other conditions = 1.00

Step 5 Compute the assessment value for a lease/well by using the following formula:

Total \$ Value Decimal Int. Dept. Allow. Assessment of Gas Prod. X of Ownership X Factor X Credit = Value

2024 Gas Assessment Guidelines Cont'd

Example A

Total dollar value (less Severance Tax) for lease/well gas production = \$8,000
Interest owned as of January 1 = 0.875 working
Year of production = 5th

Based on these assumptions, the working interest assessment value is computed as follows:

Total \$ Value of Gas Prod.		\$8,000
Decimal Int. of Ownership		0.875
Dept. Factor		2.664023
X Allow. Credit	X	1.0
Assessment Value		\$18,648

2024 Gas Assessment Guidelines Cont'd

Example B

Total dollar value (less Severance Tax) for lease/well gas production = \$75,000

Interest owned as of January 1 = 0.875 working

Year of production = 1st

Based on these assumptions, the working interest assessment value is computed as follows:

Total \$ Value of Gas Prod.		\$75,000
Decimal Int. of Ownership		0.875
Dept. Factor		2.664023
X Allow. Credit	X	0.33
Assessment Value		\$57,693

NOTE: The credit for a second year well is 0.67.

2024 Gas Assessment Guidelines Cont'd

Example C

Total dollar value (less Severance Tax) for lease/well gas production = \$6,500
Interest owned as of January 1 = 0.125 royalty
Year of production = 15th

Based on these assumptions, the working interest assessment value is computed as follows:

Total \$ Value of Gas Prod.	\$6,500
Decimal Int. of Ownership	0.125
Dept. Factor	4.843678
X Allow. Credit	X 1.0
Assessment Value	\$3,935

2024 Gas Assessment Guidelines Cont'd

Example D

Total dollar value (less Severance Tax) for lease/well gas production = \$22,000

Interest owned as of January 1 = 1.00 all

Year of production = 9th

Based on these assumptions, the working interest assessment value is computed as follows:

Total \$ Value of Gas Prod.		\$22,000
Decimal Int. of Ownership		0.875
Dept. Factor ("working")		2.664023
X Allow. Credit	X	<u>1.0</u>
Assessment Value		\$51,282

Total \$ Value of Gas Prod.		\$22,000
Decimal Int. of Ownership		0.125
Dept. Factor ("royalty and overriding")		4.843678
X Allow. Credit	X	<u>1.0</u>
Assessment Value		\$13,320

2024 Gas Assessment Guidelines Cont'd

Example D cont'd

Working Interest Assessment	\$51,282
<u>Royalty Interest Assessment</u>	+ \$13,320
Total Assessment Value	\$64,602

Or

Total \$ Value of Gas Prod.	\$22,000
Decimal Int. of Ownership	1.00
Dept. Factor ("all")	2.93648
<u>X Allow. Credit</u>	X 1.0
Assessment Value	\$64,602

NOTE: Example D indicates that if a producer/operator owns all interest (working and royalty) in a property, the assessment will be based on the industry standard of .875 working and .125 royalty. Also, please note that the "All" Interest Factor calculates the total assessment value in this manner.

2024 Oil Assessment Guidelines

2024 Oil Assessment Guidelines

The following steps and examples explain how to calculate the oil property tax assessment values. Assessments are calculated only for active leases.

Step 1 Determine the total dollar value (less Severance Tax) paid for the oil produced from your lease/well for the twelve months prior to the January 1 assessment date.

Step 2 Determine your correct decimal interest of ownership in the lease/well.

Step 3 Select your appropriate departmental oil property assessment factor. The current oil assessment factors are as follows:

“All” Interest Factor = 2.694571

Working Interest Factor = 2.524643

Royalty and Overriding Interest Factor = 3.884067

Step 4 Determine any appropriate allowance credit to be used in the oil assessment formula. The allowance credits are as follows:

First year oil production = 0.33

Second year oil production = 0.67

Waterflood oil production = 0.60

All other conditions = 1.00

Step 5 Compute the assessment value for a lease/well by using the following formula:

Total \$ Value Decimal Int. Dept. Allow. Assessment of Oil Prod. X of Ownership X Factor X Credit = Value

2024 Oil Assessment Guidelines Cont'd

Example A

Total dollar value (less Severance Tax) for lease/well oil production = \$10,000

Interest owned as of January 1 = 0.875 working

Year of production = 5th Waterflood = Yes

Based on these assumptions, the working interest assessment value is computed as follows:

Total \$ Value of Oil Prod.	\$10,000
Decimal Int. of Ownership	0.875
Dept. Factor	2.524643
<u>X Allow. Credit</u>	<u>X 0.60</u>
Assessment Value	\$13,254

2024 Oil Assessment Guidelines Cont'd

Example B

Total dollar value (less Severance Tax) for lease/well oil production = \$100,000
Interest owned as of January 1 = 0.875 working
Year of production = 1st
Waterflood = No

Based on these assumptions, the working interest assessment value is computed as follows:

Total \$ Value of Oil Prod.	\$100,000
Decimal Int. of Ownership	0.875
Dept. Factor	2.524643
<u>X Allow. Credit</u>	<u>X 0.33</u>
Assessment Value	\$72,899

2024 Oil Assessment Guidelines Cont'd

Example C

Total dollar value (less Severance Tax) for lease/well oil production = \$6,500

Interest owned as of January 1 = 0.125 royalty

Year of production = 7th

Waterflood = No

Based on these assumptions, the working interest assessment value is computed as follows:

Total \$ Value of Oil Prod.	\$6,500
Decimal Int. of Ownership	0.125
Dept. Factor	3.884067
X Allow. Credit	X 1.0
Assessment Value	\$3,156

2024 Oil Assessment Guidelines Cont'd

Example D

Total dollar value (less Severance Tax) for lease/well oil production = \$75,000

Interest owned as of January 1 = 1.00 all

Year of production = 5th Waterflood = No

Based on these assumptions, the working interest assessment value is computed as follows:

Total \$ Value of Oil Prod.	\$75,000
Decimal Int. of Ownership	0.875
Dept. Factor (“working”)	2.524643
X Allow. Credit	X 1.0
Assessment Value	\$165,680

Total \$ Value of Oil Prod.	\$75,000
Decimal Int. of Ownership	0.125
Dept. Factor (“royalty and overriding”)	3.884067
X Allow. Credit	X 1.0
Assessment Value	\$36,413

2024 Oil Assessment Guidelines Cont'd

Working Interest Assessment	\$165,680
+ Royalty Interest Assessment	+ \$36,413
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Total Assessment Value	\$202,093

Or

Total \$ Value of Oil Prod.	\$75,000
Decimal Int. of Ownership	1.00
Dept. Factor ("all")	2.694571
X Allow. Credit	X 1.0
<hr/>	
Assessment Value	\$202,093

NOTE: Example D indicates that if a producer/operator owns all interest (working and royalty) in a property, the assessment will be based on the industry standard of .875 working and .125 royalty. Also, please note that the "All" Interest Factor calculates the total assessment value in this manner.

Common Filing Issues

- **Address Updates- All address updates must be submitted to the DOR.**
- **Address updates can be sent to:**

DORMINERAL@ky.gov

Natural Resources Property Tax Branch
Office of Property Valuation

501 High Street, Fourth Floor, Station 33
Frankfort, Kentucky 40601-2103

Contact Megan Greene at Megan.Greene@ky.gov or (502)564-7038

Common Filing Issues

- **Each lease must equal 100% ownership. Any lease submitted without a 100% will have the difference **SUSPENDED** back to the filer.**

Example:

<u>OWNER</u>	<u>LNUM</u>	<u>LNAME</u>	<u>INTEREST</u>	<u>INT TYPE</u>
OWNER 1	472	SMITH	.0425	R
OWNER 2	472	SMITH	.80	W
OWNER 3	472	SMITH	.0425	R
OWNER 4	472	SMITH	<u>.0425</u>	R

Total Interest: .9275

100% - 92.75% = .0725 Missing ownership interest will be placed in suspense status back to the filer (*SUSPENSE*).

Helpful Tips

- **Highlight changes- new owners or interest ownership changes**
- **Indicate owners that need to be in SUSPENSE and addressed C/O the filer**
For example: Unknown owners, owners with incomplete addresses, return mail, and escrow accounts
- **Indicate wells in First and Second year production to receive credit**
- **If another company is also reporting the lease ownership, please indicate to prevent duplication of reported information**

Other Information

KRS 132.820 Assessment of unmined coal, oil, and gas reserves held separately from surface real property -- Exceptions -- Effect of appeal on payment of taxes.

- (1) The department shall value and assess unmined coal, oil, and gas reserves, and any other mineral or energy resources which are owned, leased, or otherwise controlled separately from the surface real property at no more than fair market value in place, considering all relevant circumstances. Unmined coal, oil, and gas reserves and other mineral or energy resources shall in all cases be valued and assessed by the Department of Revenue as a distinct interest in real property, separate and apart from the surface real estate unless: (a) The unmined coal, oil, and gas reserves, and other mineral or energy resources are owned in their entirety by the surface owner; (b) The surface owner is neither engaged in the severance, extraction, processing, or leasing of mineral or other energy resources nor is he an affiliate of a person who engages in those activities; and (c) The surface is being used by the surface owner primarily for the purpose of raising for sale agricultural crops, including planted and managed timberland, or livestock or poultry. For purposes of this section, "affiliate" means a person who directly or indirectly owns or controls, is owned or controlled by, or is under common ownership or control with, another individual, partnership, committee, association, corporation, or any other organization or group of persons.
- (2) Each owner or lessee of property assessed under subsection (1) of this section shall annually, between January 1 and April 15, file a return with the department in a form as the department may prescribe. Other individuals or corporations having knowledge of the property defined in subsection (1) of this section gained through contracting, extracting, or similar means may also be required by the department to file a return.
- (3) Any property subject to assessment by the department under subsection (1) of this section which has not been listed for taxation, for any year in which it is taxable, by April 15 of that year shall be omitted property.
- (4) After the valuation of unmined minerals or other energy sources has been finally fixed by the department, the department shall certify to the county clerk of each county the amount liable for county, city, or district taxation. The report shall be filed by the county clerk in his office, and shall be certified by the county clerk to the proper collecting officer of the county, city, or taxing district for collection.
- (5) The notification, protest, and appeal of assessments under subsection (1) of this section shall be made pursuant to the provisions of KRS Chapter 131.
- (6) No appeal shall delay the collection or payment of taxes based upon the assessment in controversy. The taxpayer shall pay all state, county, and district taxes due on the valuation which the taxpayer claims as the true value as stated in the protest filed under KRS 131.110. When the valuation is finally determined upon appeal, the taxpayer shall be billed for any additional tax and interest at the tax interest rate as defined in KRS 131.010(6), from the date the tax would have become due if no appeal had been taken. The provisions of KRS 134.015(6) shall apply to the tax bill.
- (7) The collection of tax bills generated from the assessments made under subsection (1) of this section shall be made pursuant to the provisions of KRS Chapter 134.

Other Information

KRS 134.015 Due dates -- Person responsible for payment -- Regular and alternative collection schedules -- Discounts.

- (1) All property taxes are due and payable on or before December 31 of the assessment year except as otherwise provided by law. Payment shall be made to the sheriff as provided in KRS 134.119 unless otherwise provided by law.
- (2)
 - (a) Any taxpayer who pays the property taxes in full by November 1 of the assessment year shall receive a two percent (2%) discount on the amount otherwise due.
 - (b) Taxes paid in full between November 2 and December 31 of the assessment year shall be paid at the amount reflected on the tax bill without discount or penalty.
 - (c) Taxes paid in full between January 1 and January 31 of the year following the assessment year shall be subject to a penalty of five percent (5%) of the taxes due and unpaid.
 - (d) Taxes paid after January 31 of the year following the assessment year shall be subject to a penalty of ten percent (10%) of the taxes due and unpaid.
- (3) If the regular collection schedule established by subsections (1) and (2) of this section is delayed, the department may establish an alternative collection schedule. Taxes shall be due two (2) full months from the date the tax bills are mailed. The alternative collection schedule shall allow a two percent (2%) discount for all tax bills paid in full within one (1) full month of the date the tax bills were mailed. Upon expiration of the discount period, the face amount reflected on the tax bill without discount or penalty shall be due for the next full month. Payments made within one (1) month following the face amount period shall be subject to a penalty of five percent (5%) of the taxes due and unpaid. Payments made after the five percent (5%) penalty period shall be subject to a penalty of ten percent (10%) of the taxes due and unpaid.
- (4) All taxes due under this section and all fees, penalties, and interest thereon are a personal debt of the taxpayer on the assessment date, from the time the tax becomes due until paid.
- (5) The lien that attaches to property on which taxes have become delinquent under KRS 134.420 shall continue as provided in KRS 134.420, from the time the taxes become delinquent until the taxes are paid or the eleven (11) year period established by KRS 134.420 expires, regardless of who owns the property.
- (6) A tax bill issued against omitted property, or an increase in valuation over that claimed by the taxpayer, as finally determined upon appeal as provided for in KRS 133.120, shall be due the day the bill is prepared and shall be considered delinquent on that date. If the tax bill is not paid within one (1) full month of the due date, an additional penalty of ten percent (10%) of the tax, fees, penalties, and interest due shall be added to the tax bill. The laws relating to delinquent taxes on the same class of property or taxpayers involved shall apply to delinquent omitted tax bills unless otherwise provided by law.

Questions?

OIL AND NATURAL GAS PROPERTY TAX ASSESSMENT

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The information in this presentation is for educational and informational purposes only and does not constitute legal advice. Information is presented as an overall review that is subject to law changes and may not apply to all states. For accurate information on issues related to Oil and Natural Gas Property Tax, please reference KRS 132.

Information in this presentation is believed to be accurate as of the date of publication. In the event that any information in this presentation is later determined to be in error, this presentation cannot be used by taxpayers in supporting a specific position or issue before the Department of Revenue, as it does not have the statutory or regulatory authority.

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