On September 3, 2019, the State Tax Department filed valuation variables to be used in conjunction with the legislative rule for the appraisal of oil and gas properties. (See: §§ 110 CSR 1J-1, et seq.) This notice will address one of the variables, the production decline rate(s), setting forth the procedures used in developing the rate(s) for Tax Year 2020.

DISCUSSION

The income stream generated from a producing oil or gas well is directly dependent upon the quantity of the natural resource produced from the well. Once drilled an oil or gas well will experience a sharper production decline, typically for the first two (2) years of production. This is known as flush production. Thereafter production decline levels off into what is known as settled production. The rate of production decline is dependent upon the physical location of the well and the stratigraphic formation(s) from which the well is producing.

The West Virginia Geological and Economic Survey (“Survey”) has in past years created a database that contains well-by-well production data by producing formation(s). The Tax Department contracted with the Survey to develop an analytical model to plot production declines by location/formation throughout the State using data available at the time of the contract.

The Survey has divided the State into ten (10) regions that contain similar oil and gas geological characteristics. A map of the State depicting each of the ten (10) regions and a complete list of the oil and gas decline rates can be found in the above referenced variables filed on August 29, 2018.

For Tax Year 2014, in addition to the data from the Survey, the Tax Department also did a survey for Marcellus wells. The results from this data were used in the above-referenced variables as well.
For Tax Year 2016, further data was also utilized to update the Marcellus decline for the North West Region.

The appropriate production decline rate(s) are applied to individual well gross receipts to develop a probable future income series for the respective wells. The income streams from these wells are then discounted to present value.

For more information concerning the development of oil and gas well production decline rates contact the State Tax Department at (304) 558-3940.

Notice of this determination will be filed in the West Virginia Register.

Issued: January 30, 2020

Dale W. Steager
State Tax Commissioner

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