



ACTS: *The Crown Minerals Act*  
*The Freehold Oil and Gas Production Tax Act, 2010*

REGULATIONS: *The Crown Oil and Gas Royalty Regulations, 2012*  
*The Freehold Oil and Gas Production Tax Regulations, 2012*

TOPIC: **ROYALTY/TAX INCENTIVE VOLUMES  
FOR  
VERTICAL OIL WELLS  
DRILLED  
ON OR AFTER OCTOBER 1, 2002**

This Information Circular has been prepared by the Ministry of the Economy to explain the policies and procedures which are used to administer the Crown royalty and freehold production tax (royalty/tax) incentive volumes for vertical oil wells in accordance with *The Crown Oil and Gas Royalty Regulations, 2012* and *The Freehold Oil and Gas Production Tax Regulations, 2012* (collectively the "regulations"). Reference should be made to the Acts and regulations for an exact statement of the law. In case of a conflict between this Information Circular and the provisions of the Acts and regulations, the Acts and regulations will govern. This Information Circular has no legal force or effect.

Note: This circular replaces Information Circulars PNG94IC03 and EFA-IC03 and is available on the Ministry of the Economy's web site at [www.economy.gov.sk.ca/royaltytaxinfocirc](http://www.economy.gov.sk.ca/royaltytaxinfocirc)

**I. DEFINITION OF TERMS REFERRED TO IN THIS CIRCULAR**

**DEEP DEVELOPMENT VERTICAL OIL WELL** means:

- (i) a vertical oil well that is also a deep oil well and not an exploratory vertical oil well and that:
  - (a) has a finished drilling date on or after October 1, 2002 and has not had its wellbore, or any portion of its wellbore, utilized for any purpose; or
  - (b) produces oil from a zone that:
    - (I) is within the section of its wellbore that was deepened on or after October 1, 2002 and the section, or portion of the section, has not been utilized for any purpose; and
    - (II) was not previously part of the wellbore before it was deepened; or
- (ii) a vertical oil well with a finished drilling date on or after October 1, 2002 that is approved by the minister as a deep development vertical oil well.

**DEEP OIL WELL** means an oil well that is producing oil:

- (i) from a zone:
  - (a) the upper limit of which, measured from the Kelly Bushing, is more than 1,700 metres in depth as determined in accordance with the records of the Ministry of the Economy, or any lesser depth the minister may approve; and
  - (b) within the Mississippian Period; or
- (ii) from a zone that was deposited before the Bakken zone regardless of the depth.

NOTE: The Bakken producing zone is considered part of the Mississippian Period.

**EXPLORATORY VERTICAL OIL WELL** means a vertical oil well with a finished drilling date on or after October 1, 2002:

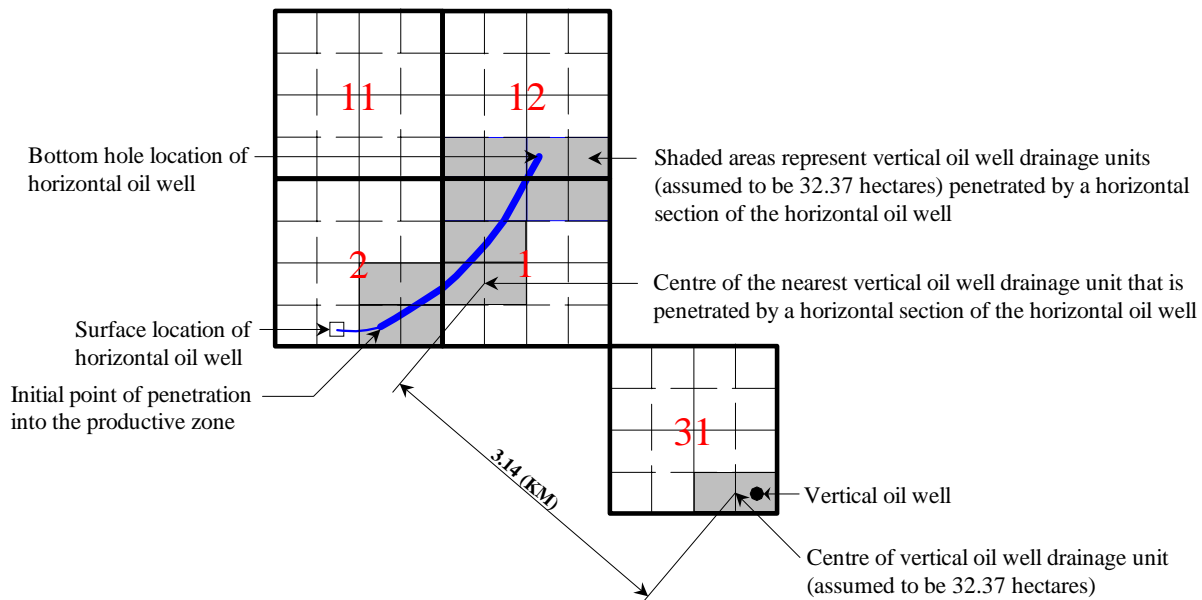
- (i) that has oil listed as the well objective on the well licence;
- (ii) that has not had its wellbore, or any portion of its wellbore, utilized for any purpose since December 31, 1983;
- (iii) that, at the time the well is licensed, is located in a drainage unit that has not contained an oil well that produced oil from the same zone; and
- (iv) that first produces oil from the zone noted as the producing zone or formation on the well licence and:
  - (a) that has, at the time the well is licensed, an inter oil well distance of more than three kilometres from the vertical oil well to any other oil well or oil well location; or
  - (b) that produces oil from a zone within an older geological system than the oldest geological system in which:
    - (I) any other oil well is cased through or into, if, at the time the vertical oil well is licensed, the inter oil well distance from the other oil well to the vertical oil well is three kilometres or less;
    - (II) any other oil well is open-hole completed into, if, at the time the vertical oil well is licensed, the inter oil well distance from the other oil well to the vertical oil well is three kilometres or less; or
    - (III) any other oil well location is licensed through or into, if, at the time the vertical oil well is licensed, the inter oil well distance from the other oil well location to the vertical oil well is three kilometres or less;

or a vertical oil well with a finished drilling date on or after October 1, 2002 that is approved by the minister as an exploratory vertical oil well.

**GEOLOGICAL SYSTEM** means the strata, as determined from time to time by the Saskatchewan Geological Survey, deposited during a particular geological period, including the geological periods known as the Cretaceous, Jurassic, Triassic, Mississippian, Devonian, Silurian, Ordovician, Cambrian and Precambrian.

**INTER OIL WELL DISTANCE** means the distance in kilometres measured from the centre of the drainage unit of an oil well or oil well location to the centre of the drainage unit of another oil well or oil well location if:

- (i) in the case of a horizontal oil well, the centre of the drainage unit is the centre of the nearest drainage unit that is established for a vertical oil well and that is penetrated by a horizontal section of the horizontal oil well; or



- (ii) in the case of an oil well location that is planned to be a horizontal oil well, the centre of the drainage unit is the centre of the nearest drainage unit that is established for a vertical oil well and that is planned to be penetrated by a horizontal section of the oil well location.

**NON-DEEP OIL WELL** means an oil well that is not a deep oil well.

**OIL WELL** means:

- (i) a wellbore:
- (a) that has been cased and that is not completed or abandoned, and
- (I) that has oil indicated as the well objective on the well licence and the Ministry of the Economy has not received written notice from the operator indicating the well objective has been changed to an objective other than oil; or

- (II) that does not have oil indicated as the well objective on the well licence and The Ministry of the Economy has received written notice from the operator indicating the well objective has been changed to oil;

and includes all reserves within the boundaries of the drainage unit for the zone from which the wellbore is expected to produce; or

- (b) that is completed in a zone for the purposes of producing oil, and includes all reserves in that zone within the boundaries of the drainage unit for that zone and is not part of a gas well in that zone; or
- (ii) any other wellbore or group of wellbores, in conjunction with any reserves, that may be approved by the minister as an oil well.

- NOTE: 1) If a wellbore is plugged-back or re-completed up-hole, the resulting oil well will not be considered a newly drilled well.
- 2) If a wellbore is deepened, any oil well that produces from a zone that was not previously part of the wellbore will be considered a newly drilled well. The finished drilling date of the well will be the date when the deepening of the wellbore was completed.

**OIL WELL LOCATION** means a location for which a well licence application:

- (i) has been approved by the minister and has not subsequently been cancelled;
- (ii) indicates oil as the well objective; and
- (iii) has not yet resulted in a wellbore being cased for the purposes of production or abandoned.

**VERTICAL OIL WELL** means an oil well that is not a horizontal oil well (refer to Information Circular PR - IC05 titled "Royalty/Tax Incentive Volumes for Horizontal Oil Wells Drilled On or After October 1, 2002" for the horizontal oil well definition).

- NOTE: If the wellbore of a horizontal oil well is plugged-back to a vertical oil well, the resulting vertical oil well is not considered to be a newly drilled oil well. The finished drilling date of the vertical oil well will be the same as the horizontal oil well.

**WELLBORE** means a drilled opening in the ground other than a seismic shot hole or structure test hole, and includes the total drilled length of the opening.

**ZONE** means any interval approved by the minister that is definable with respect to a geological formation or geological unit.

## II. CROWN ROYALTY/FREEHOLD PRODUCTION TAX SYSTEM

### A. ROYALTY/TAX INCENTIVE VOLUME

Certain vertical oil wells with a finished drilling date on or after October 1, 2002 qualify for an incentive volume:

- (i) a **Deep Development Vertical Oil Well** qualifies for a 8,000 cubic metre incentive volume.
- (ii) an **Exploratory Vertical Oil Well** qualifies for:
  - (a) a 4,000 cubic metre incentive volume if the oil well is a **non-deep oil well**.
  - (b) a 16,000 cubic metre incentive volume if the oil well is a **deep oil well**.

NOTE: A non-deep oil well that is not an exploratory vertical oil well does not qualify for an incentive volume.

### B. ROYALTY/TAX RATES FOR INCENTIVE VOLUME

The royalty/tax incentive volumes noted in section A receive the following royalty/tax rates:

#### Crown Royalty (applied to oil produced from or allocated to Crown lands)

A Crown royalty rate equal to the lesser of:

- the "fourth tier oil" Crown royalty rate; and
- 2.5%.

#### Freehold Production Tax (applied to oil produced from or allocated to freehold lands)

A freehold production tax rate of 0%.

### C. ROYALTY/TAX RATES FOR PRODUCTION AFTER INCENTIVE VOLUME

After the incentive volume noted in section A has been produced, the oil produced from the vertical oil well drilled on or after October 1, 2002 will be subject to the "fourth tier oil" royalty/tax rates which are outlined in Information Circular PR - IC01 titled "Crude Oil Price Sensitive Royalty/Tax Structure".

### **III. INCENTIVE VOLUMES APPLICABLE TO RE-COMPLETED (or PLUGGED-BACK), MULTI-ZONE AND COMMINGLED OIL WELLS**

There are certain situations where the minister may approve the transfer of the unused portion of an incentive volume from a deep development vertical oil well or exploratory vertical oil well to another oil well within the same wellbore. In order to receive approval, an application must be made to the Ministry of the Economy specifically requesting the transfer. Situations which may be considered are as follows:

- (i) the oil well is the result of a re-completion (or plug-back) from the zone of the deep development vertical oil well or exploratory vertical oil well to another zone in the same wellbore and no other oil well in the wellbore has produced the remaining incentive volume.
- (ii) the wellbore is multi-zone completed and both the oil well and the deep development vertical oil well or exploratory vertical oil well simultaneously produce from the same wellbore.
- (iii) oil produced from the oil well is commingled (with minister's approval) with oil produced from the deep development vertical oil well or exploratory vertical oil well in the same wellbore.

### **IV. VERTICAL OIL WELLS WITHIN WATERFLOOD AND EOR PROJECTS**

In situations where a vertical oil well, that qualifies for an incentive volume noted in Part II, is drilled within an existing waterflood or EOR project area or where a waterflood or EOR project is implemented within an area containing a vertical oil well that has not produced its full incentive volume, the following policies apply:

#### **A. OIL WELL WITHIN AN APPROVED WATERFLOOD PROJECT**

- (i) Where a vertical oil well is drilled within an existing waterflood project area:
  - None of the oil produced from the well will be classified as incremental waterflood oil (as outlined in Information Circular PR - IC06 titled "Royalty/Tax Regime for Incremental Oil Produced from New or Expanded Waterflood Projects Implemented On or After October 1, 2002").
  - The total oil produced from the well will be used in determining when the incentive volume for the well has been produced and will be subject to the incentive volume royalty/tax rates outlined in Part II.

- (ii) Where a vertical oil well is drilled prior to or in conjunction with a project being implemented:
- A portion of the oil produced from the well will be classified as incremental waterflood oil at the time the waterflood project commences operation. This portion will qualify for the "fourth tier oil" royalty/tax rates and not the incentive volume royalty/tax rates.
  - Only the non-incremental portion of the oil produced from the well will qualify for the incentive volume royalty/tax rates outlined in Part II. The total oil produced from the well prior to the commencement date of the project and the non-incremental portion of the oil produced from the well after the commencement date of the project will be used in determining when the incentive volume for the well has been produced.

**B. OIL WELL WITHIN AN APPROVED EOR PROJECT**

Where a vertical oil well is drilled as part of or becomes part of an EOR project:

- All or a portion of the oil produced from the vertical oil well will be classified as EOR oil. The EOR factor (enhanced oil recovery factor) that applies to oil produced from existing oil wells within the project area will also apply to oil produced from the vertical oil well.
- Only the non-EOR portion of the oil produced from the vertical oil well will qualify for the incentive volume royalty/tax rates outlined in Part II.
- All or a portion of the investment associated with the vertical oil well may be recognized as investment within the EOR royalty/tax system, in which case the incentive volume applicable to the vertical oil well will be adjusted in accordance with the following formula:

$$\text{Adjusted Incentive Volume} = \text{Incentive Volume} \times (100\% - \text{Investment Portion})$$

Where: Investment Portion means the percentage of the investment associated with the vertical oil well that is approved by the minister as investment for purposes of the EOR royalty/tax system.



## V. INCENTIVE VOLUME APPROVAL PROCESS

### A. **IMPORTANCE OF DRILLING LICENCE INFORMATION**

To assist a company in finalizing drilling plans, the determination of whether or not an oil well qualifies for an incentive volume is made at the time the well is licensed. The level of the incentive volume for a vertical oil well can vary depending on the well's location (distance from other oil wells or oil well locations) and the producing zone and depth from which production is expected. All this information is indicated on Part 1 of the Well Licence (Application).

The order in which oil wells are licensed can affect whether or not they qualify as exploratory vertical oil wells. Therefore, a company that wishes to submit a group of oil well licence applications at the same time must send specific instructions with the applications indicating the particular order in which the wells are to be licensed.

The royalty/tax incentive volume will be available on Petrinex within two business days of the well licence issue date and is determined by the Ministry of the Economy based on the information provided on Part 1. The final determination of the incentive volume is made once the Ministry of the Economy has reviewed the completion information associated with initial production from the wellbore. In the situation where the wellbore was not completed in accordance with the information provided on Part 1 of the Well Licence and as a consequence, the incentive volume indicated on the query royalty tax attribute of the Petrinex is invalid, the Ministry of the Economy will notify the company that the incentive volume has changed.

In cases where the Ministry of the Economy receives completion information, the well status has been changed to active prod on the Petrinex, or where the Petroleum Royalties Branch (the office of the Ministry of the Economy responsible for administering royalty/tax incentive volumes) receives a letter from a company indicating that the wellbore was not completed or is not expected to be completed in accordance with Part 1 of the Well Licence, the resulting well will be evaluated for incentive purposes based on the following policies:

- (i) If Part 1 of the Well Licence indicates the well objective to be something other than oil and the wellbore is or is expected to be initially completed for purposes of producing oil, the incentive volume for the resulting oil well needs to be determined. This determination will be made based on the conditions that were in place at the time the Ministry of the Economy received the completion information, the change of well status to active prod on the Petrinex or the letter, whichever is the earliest.
- (ii) If Part 1 of the Well Licence indicates a particular zone to be the producing zone but the wellbore is or is expected to be initially completed in another zone, a different oil well exists and the incentive volume indicated on the query royalty tax attribute of the Petrinex may no longer be valid. The incentive volume for the oil well will be determined as if the zone from which the well is producing or is expected to produce had been indicated on Part 1 of the Well Licence as the producing zone. This determination will be made based on the conditions that were in place at the time the Well Licence was approved.

**B. EFFECT OF OIL WELL LOCATIONS**

The incentive volume for a vertical oil well, which is determined at the time the Well Licence is approved, can be affected by the existence of other oil well locations in the same area. An oil well will be re-evaluated to determine whether it qualifies as an exploratory vertical oil well if, before the oil well is spudded, the Petroleum Royalties Branch (the office of the Ministry of the Economy responsible for administering this section) is notified by a royalty/tax payer that the oil well should be re-evaluated. A re-evaluation will be performed if each oil well location that affected the oil well's qualification has either:

- (i) had its licence cancelled;
- (ii) been drilled and subsequently abandoned;
- (iii) been drilled and completed as something other than an oil well; or
- (iv) been drilled and not cased into the geological system in which the expected producing zone or formation is situated.

**VI. MONTHLY ROYALTY/TAX CALCULATION**

For each month in which the cumulative amount of oil produced from a vertical oil well is less than the incentive volume for the well, the Crown royalty and freehold production tax shares are determined by applying the appropriate royalty/tax rates as outlined in section B of Part II to the monthly oil production from the vertical oil well.

For the first month in which the cumulative amount of oil produced from a vertical oil well exceeds the incentive volume for the well, the total royalty/tax share is determined by adding the results of the following two calculations:

- (i) multiply the portion of the oil for the month required to reach the cumulative royalty/tax incentive volume by the appropriate royalty/tax rate as noted in section B of Part II; and
- (ii) multiply the remaining portion of the oil for the month (cumulative amount of oil in excess of the incentive volume) by the "fourth tier oil" royalty/tax rate. The MOP (Monthly Oil Production) factor used in the royalty/tax rate formula is based on the entire amount of oil produced from the vertical oil well for the month, including any incremental waterflood or EOR portion of the oil.

(Note: see example calculation in APPENDIX)

For each month thereafter, the "fourth tier oil" royalty/tax rates apply.

## APPENDIX

**EXAMPLE CROWN ROYALTY CALCULATION**

## ASSUMPTIONS:

- The oil well:
  - (i) is located in the southeast area of Saskatchewan;
  - (ii) is on Crown land;
  - (iii) is a vertical oil well (no horizontal section);
  - (iv) is a non-deep oil well;
  - (v) is classified as an "exploratory vertical oil well" eligible to receive the 4,000 m<sup>3</sup> incentive volume; and
  - (vi) produced a cumulative 3,925.3 m<sup>3</sup> of oil prior to the current reporting month and 150.2 m<sup>3</sup> of oil during the current reporting month.
- The Crown royalty rate for the current reporting month =  $(K - X/MOP) = 14.06204\%$   
This rate is based on the "fourth tier royalty" formula factors noted below and an MOP = 150.2:

$$\text{NOP} = \$242.00 \quad K = 28.09 \quad X = 2107$$

## CALCULATIONS:

Since the current reporting month is also the month in which the oil well produced its total incentive volume of 4,000 m<sup>3</sup> (3,925.3 + 150.2 = 4,075.5), the Crown royalty share of the 150.2 m<sup>3</sup> produced in the month is determined as follows:

- (a) Calculate the Crown royalty share of 74.7 m<sup>3</sup> (the portion of the 150.2 m<sup>3</sup> produced in the current reporting month that was required for the well to reach the total volume incentive of 4,000 m<sup>3</sup> [4,000 – 3,925.3 = 74.7]):

$$\text{Royalty rate} = \text{the lesser of the "fourth tier oil" rate (14.06204\%) and 2.5\%} = 2.5\%$$

$$\text{Royalty share} = 2.5\% \text{ of } 74.7 \text{ m}^3 = 1.86750 \text{ m}^3$$

- (b) Calculate the royalty share of remaining 75.5 m<sup>3</sup> (150.2 – 74.7 = 75.5):

$$\text{Royalty rate} = \text{the "fourth tier oil" rate} = 14.06204\%$$

$$\text{Royalty share} = 14.06204\% \text{ of } 75.5 \text{ m}^3 = 10.61684 \text{ m}^3$$

The total Crown Royalty Share of the 150.2 m<sup>3</sup> produced in the current reporting month equals the amount determined in (a) plus the amount determined in (b):

$$\text{Total Crown royalty share} = 1.86750 + 10.61684 = 12.48434 \text{ m}^3$$

FOR FURTHER INFORMATION, PLEASE CONTACT:

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