Manitoba Petroleum Fiscal Regime

MAY 2004

Manitoba Petroleum Fiscal Regime

Provincial Crown Oil & Gas Royalties
Provincial Freehold Oil & Gas Production Taxes
Drilling Incentive Program

APRIL 2004

Manitoba
Industry, Economic
Development
and Mines

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MANITOBA PETROLEUM FISCAL REGIME

INTRODUCTION

This publication provides a summary of Manitoba's petroleum fiscal regime including Provincial Crown Oil Royalties and Freehold Oil Tax. It also outlines the Manitoba Drilling Incentive Program designed to encourage investment in the sustainable development of the Province's petroleum resources.

The Province's petroleum fiscal regime is established under *The Oil and Gas Act and The Oil and Gas Production Tax Act* and related regulations.

Access to these statutes published by Manitoba's Statutory Publications is available from the Petroleum Branch at the following address.

MANITOBA INDUSTRY, ECONOMIC DEVELOPMENT AND MINES
Petroleum Branch
360 - 1395 Ellice Avenue
Winnipeg, Manitoba R3G 3P2

Ph: (204) 945-6577
Fax: (204) 945-0586

Web site:
www.gov.mb.ca/itm/petroleum

OIL CLASSIFICATION

Oil produced in Manitoba is classified in one of four categories, **old oil, new oil, third tier oil** and **holiday oil.**

Old Oil includes

- oil produced from a well drilled prior to April 1, 1974 that does not qualify as new oil or third tier oil.

New Oil includes

- oil that is not third tier oil and is produced from a well drilled on or after April 1, 1974 and prior to April 1, 1999;
- oil produced from an abandoned well re-entered on or after April 1, 1974 and prior to April 1, 1999;
- oil produced from an old oil well that, in the opinion of the Director, can be reasonably attributed to an increase in reserves from an enhanced recovery project implemented after April 1, 1974 and prior to April 1, 1999; or
- oil produced from a horizontal well.

Third Tier Oil includes

- oil produced from a vertical well drilled on or after April 1, 1999;
- oil produced from an abandoned well that is re-entered on or after April 1, 1999;
- oil produced from an inactive vertical well, activated after April 1, 1999;
- oil produced from a marginal well that has undergone a major workover; or
- oil produced from an old oil well or new oil well that, in the opinion of the Director, can be reasonably attributed to an increase in reserves from an enhanced recovery project

implemented under *The Oil and Gas Act* after April 1, 1999.

Holiday Oil includes

- oil production that is exempt from any royalty payable under the *Crown Royalty and Incentives Regulation*, or any tax payable under the *Oil and Gas Production Tax Regulation.*

PROVINCIAL CROWN OIL ROYALTIES

The royalty on production from Provincial Crown oil and gas rights is determined under the *Crown Royalty and Incentives Regulation* of *The Oil and Gas Act*.

Crown royalty is a function of the monthly oil production from a spacing unit, or oil production allocated to a unit tract under a unit agreement or order.

The formulae used for the determination of Crown Royalty are shown in Table 1.

Figure 1 and Table 2 show Crown oil royalty rates as a function of production.

Crown oil royalty rates are not price sensitive.

For horizontal wells, Crown royalty is calculated per spacing unit based on oil production allocated to the spacing units within the drainage unit of the well, as determined under the *Crown Royalty and Incentives Regulation* (Figure 2).

Table 1: Manitoba Crown Oil Royalty Determination

MONTHLY PRODUCTION (m^3) (calculated to nearest 0.1 m^3)	CROWN ROYALTY VOLUME (m^3) (calculated to nearest 0.01 m^3)
0 to 50	$K \times P^2/265$
over 50	$K \times (9.43 + 0.45\,(P-50))$

K is equal to one of the following multiplying factors:

0.00 Holiday Oil
0.47 Third Tier Oil
0.55 New Oil
1.00 Old Oil

P is the monthly oil production in cubic metres (m^3)

$$\text{CROWN ROYALTY RATE (\%)} = \frac{\text{CROWN ROYALTY VOLUME}}{\text{MONTHLY PRODUCTION}} \times 100$$

Figure 1: Manitoba Crown Oil Royalty Rates (%)

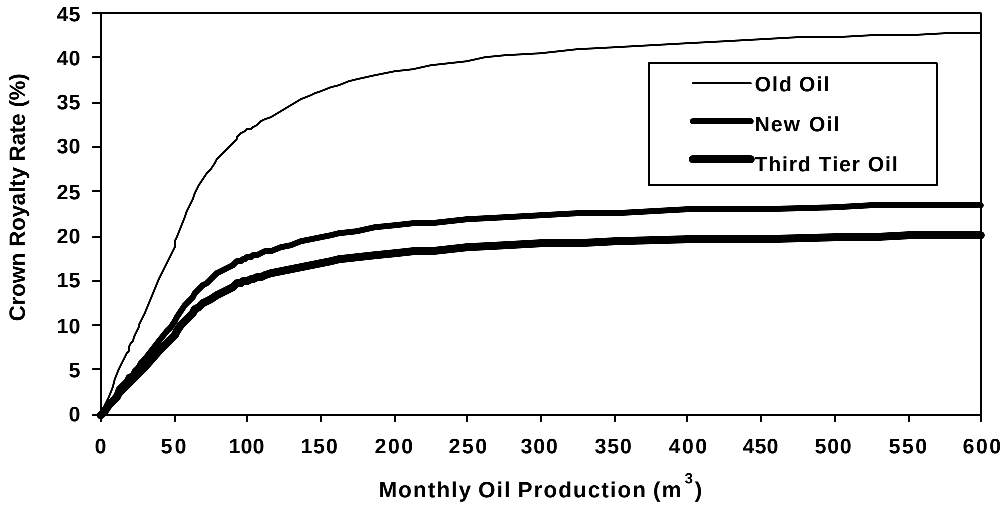
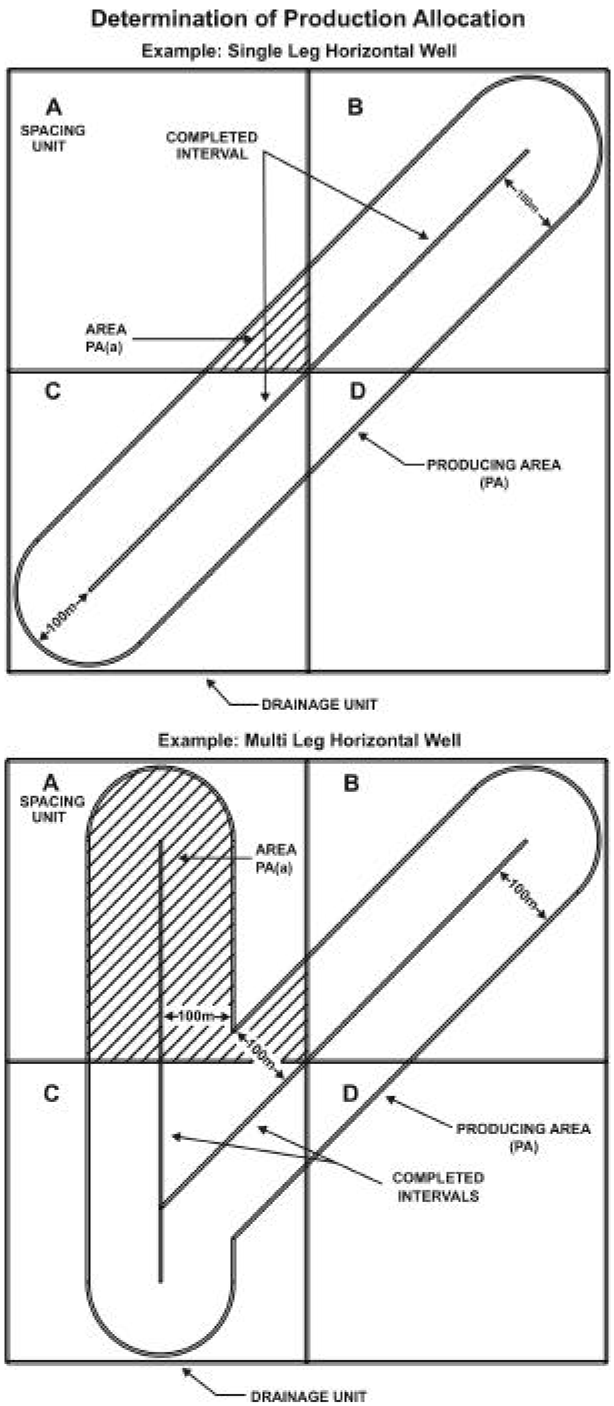


Table 2: Manitoba Crown Oil Royalty Rates (%) - Example

PRODUCTION (m^3/month)	HOLIDAY OIL	THIRD TIER OIL	NEW OIL	OLD OIL
0	0.0	0.0	0.0	0.0
20	0.0	3.5	4.2	7.5
30	0.0	5.3	6.2	11.3
40	0.0	7.1	8.3	15.1
50	0.0	8.9	10.4	18.9
60	0.0	10.9	12.8	23.2
70	0.0	12.4	14.5	26.3
80	0.0	13.5	15.8	28.7
90	0.0	14.3	16.8	30.5
100	0.0	15.0	17.6	31.9
150	0.0	17.1	20.0	36.3
200	0.0	18.1	21.2	38.5
250	0.0	18.7	21.9	39.8
300	0.0	19.1	22.4	40.6
350	0.0	19.4	22.7	41.3
400	0.0	19.6	23.0	41.7
450	0.0	19.8	23.2	42.1
500	0.0	19.9	23.3	42.4
550	0.0	20.0	23.4	42.6
600	0.0	20.1	23.6	42.8

Figure 2: Determination of Production Allocation for Horizontal Wells



$$A = HWP \times \frac{PA(a)}{PA}$$

Where:

A	*is the production allocated to spacing unit A;*
HWP	*is the production from the horizontal well in cubic metres (m^3)/month;*
PA (a)	*is the area of the producing area within spacing unit A, and;*
PA	*is the producing area of the horizontal well determined in accordance with the Crown Royalty and Incentives Regulation.*

PROVINCIAL FREEHOLD OIL PRODUCTION TAXES

The Oil and Gas Production Tax Act levies a tax on production from freehold oil and gas rights. The tax is based on monthly production from a spacing unit, or production allocated to a unit tract under a unit agreement or order.

For horizontal wells, the tax is calculated per spacing unit based on the production allocated to spacing units within the drainage area in accordance with any production allocation agreement. If there is no production allocation agreement, it is assumed that the horizontal well's production is divided equally among all spacing units in the drainage unit.

The Act provides that the operator of a well is responsible for payment of the tax on any freehold oil production. The oil and gas rights owner's and any other royalty or working interest owner's share of the tax is deducted from the payment made to them by the operator from the sales revenue.

A working interest owner, who takes its oil in kind and markets the oil, may be designated by the Director as a special operator. A special operator is responsible for filing returns and payment of the tax for its share of the production.

The freehold oil production tax is determined under *The Oil and Gas Production Tax Regulation* and is based on the formulae shown in Table 3.

Figure 3 and Table 4 show freehold oil production tax rates as a function of production.

Freehold oil production tax rates are not price sensitive.

PROVINCIAL GAS ROYALTIES AND TAXES

The provincial Crown royalty payable on gas is equal to 12.5% of the volume sold, calculated for each production month.

The Provincial freehold tax on gas is equal to 1.2% of the volume sold, calculated for each production month.

There is no Crown royalty or freehold tax payable on gas consumed as lease fuel.

Table 3: Manitoba Freehold Oil Production Tax Rate (%) Determination

OIL CLASSIFICATION	MONTHLY PRODUCTION (m3) (calculated to nearest 0.1 m^3)	TAX RATE (%) (calculated to nearest 0.01 %)
HOLIDAY OIL	All Volumes	0.00
THIRD TIER OIL	46.0 or less	0.00
	over 46.0	11 – 465/P
NEW OIL	36.0 or less	0.00
	over 36.0, and less than 65.0	0.23P – 8.11
	65.0 and over	19.59 – 820/P
OLD OIL	20.0 or less	0.00
	over 20.0, and less than 65.0	0.43P – 8.24
	65.0 and over	42.76 – 1500/P

P is the monthly oil production in cubic metres (m^3)

Figure 3: Manitoba Freehold Oil Production Tax Rates (%)

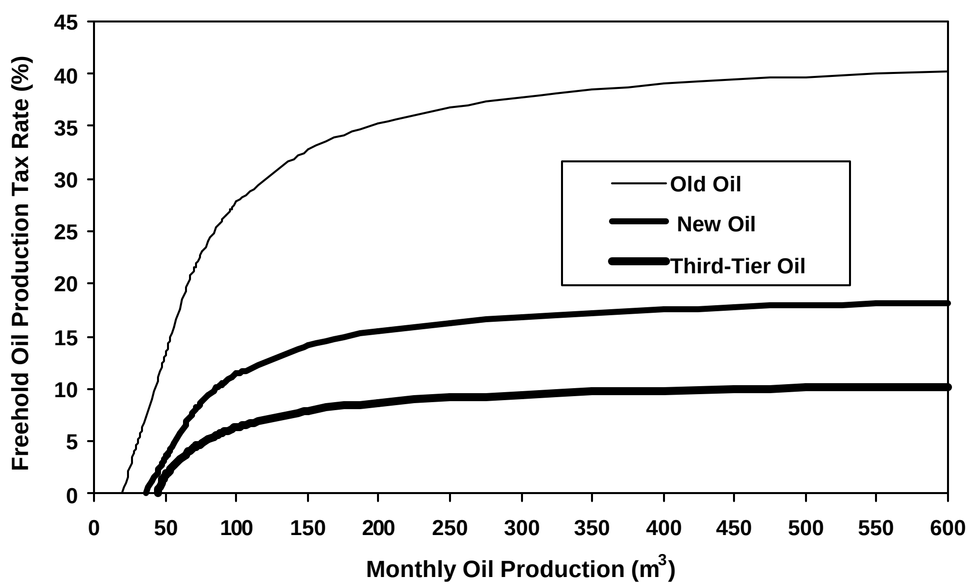


Table 4: Freehold Oil Production Tax Rates (%) - Example

PRODUCTION (m^3/month)	HOLIDAY OIL	THIRD TIER OIL	NEW OIL	OLD OIL
0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	4.7
40	0.0	0.0	1.1	9.0
50	0.0	1.7	3.4	13.3
60	0.0	3.3	5.7	17.6
70	0.0	4.4	7.9	21.3
80	0.0	5.2	9.3	24.0
90	0.0	5.8	10.5	26.1
100	0.0	6.4	11.4	27.8
150	0.0	7.9	14.1	32.8
200	0.0	8.7	15.5	35.3
250	0.0	9.1	16.3	36.8
300	0.0	9.5	16.9	37.8
350	0.0	9.7	17.2	38.5
400	0.0	9.8	17.5	39.0
450	0.0	10.0	17.8	39.4
500	0.0	10.1	18.0	39.8
550	0.0	10.2	18.1	40.0
600	0.0	10.2	18.2	40.3

MANITOBA DRILLING INCENTIVE PROGRAM

The Manitoba Drilling Incentive Program provides the licensee of newly drilled wells, or qualifying wells where a major workover has been completed, with a **"holiday oil volume"**. No Crown royalties or freehold production taxes are payable until the holiday oil volume has been produced.

“Holiday oil volumes" must be produced within 10 years of the finished drilling date of a newly drilled well, or the completion date of a major workover on a marginal well.

Holiday oil volumes earned by a newly drilled well, or a marginal well that has undergone a major workover can be transferred to a ***Holiday Oil Volume Account*** at the request of the licensee.

Wells drilled for purposes of injection (or wells converted to injection prior to producing predetermined volumes of oil) in an approved enhanced recovery project earn a one-year holiday for portions of the project area.

The program consists of 6 components:

1. New Well Incentive
2. Deep Drilling Incentive
3. Horizontal Well Incentive
4. Marginal Well Major Workover Incentive
5. Injection Well Incentive
6. Holiday Oil Volume Account

1. New Well Incentive

The program provides the licensee of a newly drilled, non horizontal well drilled **prior to January 1, 2009** with a holiday oil volume. The holiday oil volume earned by the newly drilled well is a function of the oil price at the time of drilling and the location of the well with respect to other wells that have been cased for production.

A newly drilled well under the program earns a holiday oil volume of up to **10 000 m^3.** No application is necessary to receive the holiday oil volume. The Petroleum Branch advises the licensee in writing of the holiday oil volume earned by each new well.

The holiday oil volume is determined by the following formulae and as illustrated in Figure 4.

If **D** is less than or equal to 2 kilometres;

$$\mathbf{HOV = A \times D + B}$$

If **D** is greater than 2 kilometres;

$$\mathbf{HOV = A' \times D^2 + B'}$$

Where;

HOV is the holiday oil volume in cubic metres earned by the well.

D is the distance in kilometres from the nearest well, which, as of the finished drilling date of the new well, is cased for production from the same, or a deeper formation into which the new well is drilled.

P is the average price in dollars per cubic metre of Manitoba oil delivered to the Enbridge Pipelines Inc. at the Cromer, Manitoba terminal during the month in which the well was spudded.

A = 1.7P + 230

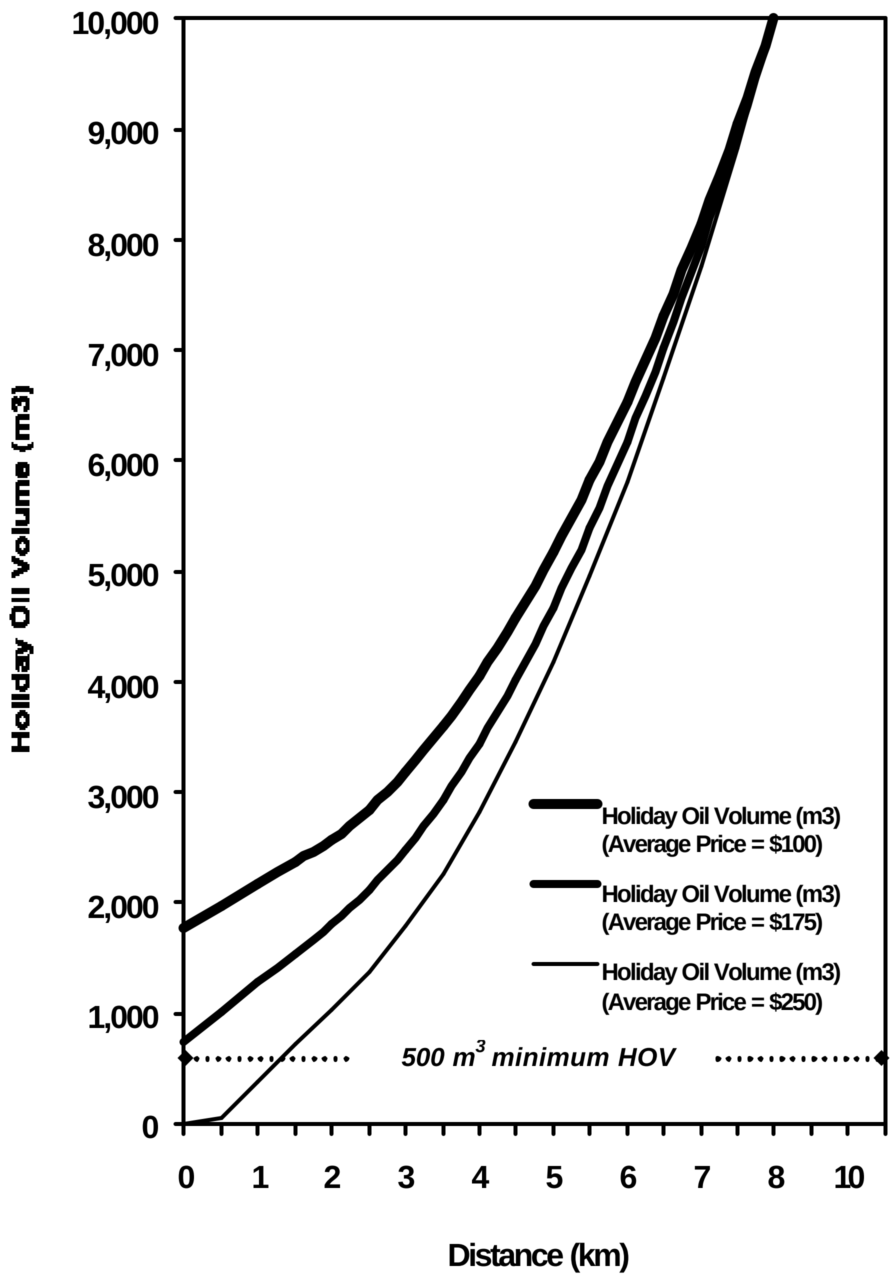
B = 3130 - 13.6P

A’ = 0.17P + 106.9

B’ = 3163 - 10.9P

A newly drilled well earns a minimum holiday oil volume of **500 m^3.**

Figure 4: Manitoba Drilling Incentive Program – New Well Holiday Oil Volume



2. Deep Drilling Incentive

Where a new well is drilled to a total depth sufficient, in the opinion of the Director, to fully penetrate the **Devonian Duperow Formation**, the holiday oil volume earned by the well under the ***New Well Incentive*** is increased by a factor of 2.0.

Where a well is completed for production from a formation deeper than the **Devonian Three Forks Formation**, the licensee of the well may make a one time assignment of holiday oil volume earned through previous drilling or major workover activity to increase the well's holiday oil volume to a maximum of **10 000 m^3**.

- prior to the well producing the holiday oil volume earned or,
- within one year of the finished drilling date of the well,

whichever comes first.

3. Horizontal Well Incentive

Any horizontal well (defined as a well that achieves an angle of at least 80 degrees from the vertical for a minimum distance of 100 m) that is drilled prior to January 1, 2009, earns a holiday oil volume of **10 000 m^3**.

A horizontal leg drilled from a horizontal well on or after January 1, 2004 and prior to January 1, 2009 and more than one year after the finished drilling date of the well, earns a holiday oil volume of **3 000 m^3.** Unless otherwise approved by the Director, only the first horizontal leg drilled from a horizontal well is eligible for this holiday oil volume.

Holiday oil volumes earned by a horizontal well can be transferred to a ***Holiday Oil Volume Account*** at the request of the licensee.

4. Marginal Well Major Workover Incentive

Any marginal well where a major workover is completed prior to January 1, 2009 earns a holiday oil volume of **500 m^3**.

A ***marginal oil well*** is defined as an abandoned well, or well that,

- was not operated over the previous 12 months, or
- produced oil at an average rate of less than 1 m^3 per operating day, as determined by the Director.

A ***major workover*** includes:

(a) the re-entry of an abandoned well;
(b) the deepening of a well into a new formation;
(c) the recompletion of a well from one pool to another;
(d) the repair of the casing in a well by installation of a new string of casing or by other means as approved by the Director in advance; and,
(e) any other workover that, in the opinion of the Director will cost more than $10,000 and is designed to increase recovery from a pool.

Upon completion of a major workover on a marginal well, any production from the well is classified as ***third tier oil***.

Effective January 1, 2005, the production rate to qualify as a marginal well for a major workover involving casing repaired by installation of a new string of casing or by other approved means approved by the Director, is increased to an average rate of less than 3 m^3 per operating day.

5. Injection Well Incentive

Where a well is drilled for the purposes of injecting water, or other substance as part of an approved enhanced recovery project, or where a producing well is converted to injection prior to production of

- 250 m^3 of oil (vertical well) or,
- 1 000 m^3 of oil (horizontal well),

the unit tract or tracts as determined below are exempt from Crown royalties or freehold production taxes for a period of one year commencing in the month that injection is commenced.

Vertical Well

For a vertical well, the one-year holiday applies to the production allocated to the unit tract in which the well is completed.

Horizontal Well

For a horizontal well, the one year holiday applies to the unit tracts that are included in the well's injection area. The well's injection area is determined in the same manner as a producing area (defined as the area within 100 m of the completed interval of the horizontal well; Figure 2).

Where more than four tracts are included in the injection area, the one year holiday applies to the four tracts that contain the majority of the well's injection area, as determined by the Director.

If the enhanced oil recovery project area has not been unitized, the one year holiday applies to spacing units (instead of tracts) as determined by the above method.

6. Holiday Oil Volume Account

A ***Holiday Oil Volume Account*** **("account")** is established for each company (licensee) or designate, who earns a holiday volume under the ***Manitoba Drilling Incentive Program***. The account is administered by the Branch. The purpose of an account is to optimize the value of holiday oil volumes earned. The account provides a company the flexibility of allocating earned holiday oil volumes among new wells.

The following provides a summary of the provisions of the ***Holiday Oil Volume Account*** under the *Crown Royalty and Incentives Regulation* for new wells drilled, or marginal wells in which a major workover has been completed, on or after January 1, 2004 and prior to January 1, 2009.

- Each eligible producing well must retain a minimum holiday volume of 500 m^3.

- The licensee may assign a holiday oil volume earned by a well to a holiday oil volume account within one year of the finished drilling date of a well.

- The licensee may make a one time assignment of holiday oil volume from an account to increase the holiday oil volume of the well to a maximum of 3 000 m^3, provided the well has earned a holiday oil volume of less than 3 000 m^3,

- prior to the well producing the holiday oil volume earned or,
- within one year of the finished drilling date of the well,

whichever comes first.

- The holiday oil volume earned by a dry hole is assigned to the account of the licensee or designate.
- Where a well is drilled to a deeper formation and is plugged back to a shallower formation before being put on production and the Director is satisfied that the licensee has evaluated the potential of the deeper formation, the holiday oil volume allocated to the well is the lesser of;
  - the amount the well would have earned if the deeper portion of the well had not been drilled, or,
  - the holiday oil volume the well would have earned under the ***New Well Incentive***.

  Any remainder is assigned to the holiday volume account of the licensee or designate.

- Where a well is completed for production from a formation that is deeper than the **Devonian Three Forks Formation**, the licensee may make a one time assignment of holiday oil volume from an account to increase the well's holiday oil volume to a maximum of **10 000 m^3,**
  - prior to the well producing the holiday oil volume earned or,
  - within one year of the finished drilling date of the well,

  whichever comes first.

- Where a marginal oil well is abandoned without producing after a major workover, the holiday oil volume earned by the well is assigned to the account of the licensee or designate.
- The licensee may, within one year of the completion of a major workover on a marginal oil well, assign a holiday oil volume earned by the major workover to a holiday oil volume account.
- The licensee of a marginal well that has had a major workover may make a one time assignment of holiday oil volume from an account to increase the holiday oil volume for the well to a maximum of 750 m^3,
  - prior to the well producing the holiday oil volume earned or,
  - within one year of the completion date of the major workover,

  whichever comes first.

- The licensee of a well can assign the holiday volumes earned under the ***Manitoba Drilling Incentive Program*** to an account of another party upon submission of written authorization to the Petroleum Registrar.

- The licensee can assign holiday oil volumes under the ***Manitoba Drilling Incentive Program*** from an account of another party upon submission of written authorization from that party to the Petroleum Registrar.

An example of ***Holiday Oil Volume*** calculations is provided in Table 5. Transactions within a ***Holiday Oil Volume Account*** are shown in the example in Table 6.

Table 5: Holiday Oil Volume Determination - Example

WELL DRILLED	WELL STATUS	DISTANCE (from well producing in the same formation)	OIL PRICE ($/m^3)	TOTAL EARNED HOLIDAY VOLUME (m^3)
Well A	Producer (vertical well)	0.4 km	$100	1 930.0
Well B	Producer (marginal well major workover)	N/A	N/A	500.0
Well C	Dry Hole	8.5 km	$175	10 000.0
Well D	Producer (vertical well)	1.6 km	$150	1 866.0
Well E	Producer (horizontal well)	3.0 km	N/A	10 000.0
Well F	Producer (vertical well)	0.4 km	$225	315.0
Well G	Producer (vertical well)	0.8 km	$200	560.0
Well H	Producer (vertical well)	0.3 km	$250	500.0 *
Well I	Producer (vertical well)	8.0 km	$250	10 000.0

** Newly drilled wells earn a minimum holiday oil volume of 500 m^3.*

Table 6: Holiday Oil Volume Company Account – Example *

WELLS DRILLED	WELL STATUS	EARNED HOLIDAY VOLUME* (m^3)	HOLIDAY VOLUME (m^3) (transferred from Well to Account)	HOLIDAY VOLUME (m^3) (transferred from Account to Well)	HOLIDAY VOLUME (m^3) (applied to Well)	WELL'S TOTAL HOLIDAY VOLUME (m^3)	ACCOUNT BALANCE (m^3)
Well A	Producer (vertical well)	1 930.0	1 430.0	N/A	500.0	500.0	1 430.0
Well B	Producer (marginal well major workover)	500.0	N/A	250.0	500.0	750.0	1 180.0
Well C	Dry Hole	10 000.0	10 000.0	N/A	N/A	N/A	11 180.0
Well D	Producer (vertical well)	1 866.0	N/A	1 134.0	1 866.0	3 000.0	10 046.0
Well E	Producer (horizontal well)	10 000.0	N/A	N/A	10 000.0	10 000.0	10 046.0
Well E	Producer (horizontal leg)	3 000.0	N/A	N/A	3 000.0	13 000.0	10 046.0
Well F	Producer (vertical well)	315.0	N/A	2 685.0	315.0	3 000.0	7 361.0
Well G	Producer (vertical well)	560.0	N/A	2 440.0	560.0	3 000.0	4 921.0
Well H	Producer (vertical well)	500.0	N/A	2 500.0	500.0	3 000.0	2 421.0
Well I	Producer (vertical well)	10 000.0	N/A	N/A	10 000.0	10 000.0	2 421.0

***** *Based on the calculation examples provided in Table 5.*

QUESTIONS AND ANSWERS

Q1 What is a *"Holiday Oil Volume Account*" and how is it maintained?

*A1 A **Holiday Oil Volume Account** is administered by the Branch. The account is established for each company (licensee) for all wells that qualify under the Manitoba Drilling Incentive Program. The account reflects all well activity and holiday oil volume assignments under the program.*

Q2 Can earned Holiday volumes be transferred from one company account to another?

A2 Yes. Holiday oil volumes can be assigned to the account of another party, upon submission of written authorization to the Petroleum Registrar.

Q3 What is the minimum holiday oil volume that a newly drilled well can earn?

A3 A newly drilled well earns a minimum of 500 m^3.

Q4 What is the maximum holiday oil volume that a newly drilled well can earn?

A4 A newly drilled well can earn up to 10 000 m^3. A well drilled that fully penetrates the Devonian Duperow Formation can earn up to 20 000 m^3.

Q5 Can a horizontal well earn more than 10 000 m^3 if an additional leg is drilled?

A5 Yes. The first additional horizontal leg drilled more than one year after the finished drilling date of the horizontal well can earn 3 000 m^3.

Q6 What is the minimum holiday oil volume that a newly drilled well must retain?

A6 Each eligible producing well must retain 500 m^3.

Q7 Can additional holiday oil volume be assigned from a *Holiday Oil Volume Account* to a new producing well, if that well earned less than 3 000 m^3?

A7 Yes. The licensee of a new oil well can "top up" the earned holiday oil volume to a maximum of 3 000 m^3. Assignments must be made prior to the well producing its original earned Holiday Oil Volume, or within one year of the finished drilling date of the well, whichever comes first.

Q8 Does a "dry hole" earn a holiday oil volume?

*A8 Yes. The holiday oil volume earned is assigned to the company **Holiday Oil Volume Account**.*

Q9 How is holiday oil volume determined?

A9 The holiday oil volume is determined by a formula calculation that is based on the distance to the nearest producing well drilled to the same or deeper formation, as the new oil well and on the average monthly oil price (during the month the newly drilled well was spudded).

Q10 Can additional holiday oil volume be assigned from a *Holiday Oil Volume Account* to a marginal well that has had a major workover?

A10 Yes. The licensee of a marginal well that has had a qualifying major workover can "top up" the earned holiday oil volume to a maximum of 750 m^3. Assignments must be made prior to the well producing its original earned Holiday Oil Volume, or within one year of the completion of the major workover, whichever comes first.