

Using the Petrinex Oil Forecast Tool to Estimate Crown Royalty Volumes

Jurisdiction	Release/Revision Date	Location of Change in this Document	Comment
AB	September 15, 2026		Initial Release

Audience: All Alberta Petrinex Oil Marketing and Forecasting Users

Purpose:

This TIP provides Alberta industry oil marketing and forecasting staff an overview of the Petrinex Oil Forecast Tool (OFT), the monthly oil forecasting and reporting cycle, and what changes when Alberta Royalty Framework (ARF) transitions to the Modernized Royalty Framework (MRF) on January 1, 2027. It also sets out the practices that produce the most accurate Crown royalty volume forecasts and support monthly oil logistics.

Why Forecast Accuracy Matters

Under Alberta's conventional oil royalty regime, producers calculate and deliver the Crown's royalty share of production through the Take-in-Kind (TIK) process. Royalty rates are not fixed and can move materially from one month to the next, which makes the Crown's share difficult to forecast.

Conventional oil reporting involves a 3-stage, multi-month process on several linked activities :

- Crown royalty volume estimates
- Shipper allocations
- Purchaser nominations
- Pipeline logistics planning
- Financial settlements

The OFT helps operators calculate forecast Crown royalty volumes using the most current royalty information available in Petrinex.

Key Royalty Framework Changes

Effective January 1, 2027, natural gas, conventional oil, and non-project oil sands wells that qualify under the ARF will transition to the MRF. [Information Bulletin IB 2026-02: Alberta Royalty Framework Wells Transitioning to Modernized Royalty Framework](#) sets out the full details.

As a result:

- Transitioned ARF wells will no longer receive a C* designation.

- Royalties for production on or after January 1, 2027, will be calculated using Post-C* royalty formulas.
- Amendments to pre-transition production periods will continue to be calculated under the appropriate ARF regulations.
- Wells that undergo qualifying re-entry activities may receive an incremental C*. MRF royalty calculations apply once that incremental C* reaches zero.

Petrinex began releasing OFT updates in September to support the transition.

What is the Petrinex Oil Forecast Tool (OFT)?

The OFT is a set of Petrinex functions that helps operators forecast Alberta Crown royalty oil volumes.

Key OFT functions include:

- Edit Oil Forecast
- Query Oil Forecast
- Edit User Forecast Facility View List
- Query User Forecast Facility View List
- Submit Report Requests:
 - Oil Forecast – Facility View List Report
 - Oil Forecast – Gross and Crown Forecast Report
 - Oil Forecast – Variance Report

The OFT combines forecast gross production volumes with royalty information supplied by Alberta Energy and Minerals (AEM) to estimate the Crown royalty volume for each well. The inputs used to calculate the Crown's oil royalty share are:

- Individual well production volume (sourced from Petrinex)
- Current month PAR price (provided by AEM)
- Royalty attributes, including mineral ownership and benefit program status (provided by AEM at the well level)
- The royalty formula that applies to each well

Petrinex initializes each forecast month roughly two months in advance, on or about the 26th, once the APMC PAR price is available. Petrinex then generates gross and Crown forecast volumes at the facility and well event level for online edit, query and report requests.

How the OFT Supports Forecasting

The OFT supports forecasting at:

- Well level
- Producing battery level
- Facility View List (group) level

What the OFT Does Not Do

The OFT does not:

- × Forecast operational changes in the field
- × Predict future royalty attribute changes
- × Calculate non-Crown shipper allocations
- × Generate Crude Oil Logistics Committee (COLC) Forms A, B, or C
 - Form A (producer to delivering facility operator): identifies the forecast volume and the shippers or purchasers marketing the oil to downstream facilities and to the pipeline or terminal. Form A can be revised through the forecast and production months.
 - Form B (producer to shipper or purchaser): issued whenever a Form A is revised, to advise the affected shipper or purchaser of the revised volume.
 - Form C (final receiving facility operator to shippers): issued monthly once Form As are received. It consolidates forecast volumes by shipper and receipt point and identifies the supply volume available to transact in the production month.
- × Maintain Facility View Lists automatically
- × Forecast multiple destinations for Crown royalty volumes

Operators are responsible for reviewing forecast assumptions and adjusting them to reflect current operating conditions

Forecasting Best Practice

Forecast at the well level wherever possible

The most accurate Crown royalty forecasts are generated when gross production forecasts are entered at the individual well level.

Forecasting at higher levels requires Petrinex to prorate production changes across multiple wells, which reduces accuracy.

Forecasting Level	Accuracy
Well Level	Highest
Producing Battery Level	Moderate
Facility View List Level	Lowest

Note: the more detailed the forecast input, the more accurate the resulting Crown royalty calculation. Attachment 1 shows the impact of forecasting at each level.

Recommended Practices

Use the OFT Functions in Petrinex

Petrinex applies the current royalty attributes, formulas and PAR price to every well in the OFT. Forecasts built outside Petrinex will not reflect attribute changes made by AEM.

Maintain Facility View Lists

If you use Facility View Lists, review and update them regularly so they reflect current production streams and facility configurations. See the job aid, How to Create Groups of Batteries for Petrinex Oil Tool Functions

Review Gross Production Forecasts

Adjust forecast gross volumes for:

- Shut-ins
- Start-ups
- Maintenance activities
- Operational changes
- Production trends

Use Field Data

Where field data capture systems are in place, upload current well production forecasts through the Petrinex upload process.

Work Within the OFT Timeline

Review Facility View Lists and gross production forecasts early enough for Petrinex to include them in the monthly forecast calculation.

- Each production month has three overlapping phases:
 - Forecast month: the month before production. Processes begin at the end of the previous month.
 - Production month: the month of physical delivery.
 - Accounting or settlement month: the month after production.
- Example, January production: Facility View List (Form A battery) groupings can begin on October 27, and the initial January forecast is calculated on November 26. Set up or amend Facility View Lists as early in the month as possible so they are captured in the initial Gross and Crown Forecast Report.

Avoid Over-Forecasting

Inflated production forecasts distort the Crown royalty forecast and create allocation and settlement problems downstream for every party. Forecast the volumes you expect to produce.

Key Takeaways

- Accurate Crown royalty forecasts depend on both an accurate gross production forecast and current royalty information.
- The OFT applies the most current royalty attributes, formulas and PAR price held in Petrinex.
- The most accurate forecasts come from gross production entered at the well level. Battery and Facility View List forecasts rely on prorating and are less accurate.

- Operators are responsible for maintaining Facility View Lists and for adjusting forecasts to reflect operational changes.
- MRF changes are built into the OFT. Forecasting staff should understand them before the January 2027 production month.

Need Assistance?

The Petrinex Business Desk and the Petrinex Business Analysis and Engagement Team (BAET) can assist with OFT functions, forecasting processes and MRF transition questions.

Petrinex Business Desk

Phone: 403-297-6111 (Toll Free 1-800-992-1144)

E-mail: Petrinexsupport@petrinex.ca

Attachment 1

The example below shows the impact of forecasting at three different levels in the OFT:

Scenario:

Total production has increased from 780 m³ to 1,000 m³ over the previous actual period used to generate the starting forecast for the current forecast period.

The forecaster needs to determine whether the 220 m³ increase came from one well or from an overall improvement in field productivity.

1. If the change is entered at the Form A delivering facility (Facility View List) level, the OFT prorates it across all wells and producing batteries associated with that Form A battery.
2. If the change is entered at a single producing battery, the OFT prorates it across the wells producing to that battery only.
3. If the change is entered at the well level, the OFT applies it exactly as entered and makes no prorating assumptions

Results:

The forecast Crown share changes materially depending on the level at which the information is entered. The OFT calculates the following results for the three approaches:

1. Form A Delivering Facility: 1,000.0 Gross Calculated Crown = 92.4 m³ (9.24%)
2. Producing Battery Level: 1,000.0 Gross Calculated Crown = 114.5 m³ (11.45%)
3. Well Level: 1,000.0 Gross Calculated Crown = 130.5 m³ (13.05%)
4. Gross volume is identical in all three cases. The forecast Crown share varies by 38.1 m³, or roughly 41 per cent, based only on the level at which the forecast was entered.

The forecasting approach also affects every other owner and shipper:

<u>Scenario and Shipper/Owner shares</u>		<u>1.</u>	<u>2.</u>	<u>3.</u>
Crown	Shipper APMC	92.4	114.5	130.5
WIO A 50.0%	Shipper D	453.8	442.7	434.8
WIO B 25.0%	Shipper D	226.9	221.4	217.3
WIO C 25.0%	Shipper E	<u>226.9</u>	<u>221.4</u>	<u>217.3</u>
Total Production		1000.0	1000.0	1000.0