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OIL SANDS INFORMATION BULLETIN 2015-07

Subject: Reserves Requirement for Oil Sands Royalty Applications

Alberta Energy has added detail and clarification to the reserves requirement for oil sands royalty (OSR) applications. The specifics of the requirement are laid out in this Information Bulletin.

Effective June 1, 2015, the requirements are in effect for all OSR applications. As a grace period, for all operators that submit an OSR application between June 1, 2015 and August 31, 2015, the reserves requirement for those applications must be met by September 1, 2015.

Applications submitted prior to June 1, 2015 are also required to meet the reserves requirement. Documents related to satisfying the reserves requirement can be emailed directly to the engineer assigned to the project approval, or to OSRApplications.Energy@gov.ab.ca.

After September 1, 2015, all submitted applications which do not satisfy the reserves requirement as laid out in this Information Bulletin may be deemed incomplete and rejected, under Section 10(6)(a) of the Oil Sands Royalty Regulation, 2009.

Reason for Revisiting the Reserves Requirement

When processing an application to the oil sands royalty program, the Minister must take into consideration whether the project will reach payout and generate net revenue (section 11(1) of the *Oil Sands Royalty Regulation 2009*). The analysis of these criteria relies heavily on the production forecast submitted by the operator with the application, in the OSR Economic Evaluation spreadsheet.

In 2013, Alberta Energy identified a need for operators to submit reserves information to justify the application's production forecast. Effective 2013, all applications adding resources or reserves to the project were required to submit a 2P reserves report. Requiring this report gives Alberta Energy unbiased information to justify the production forecast reported in the OSR Economic Evaluation spreadsheet, and therefore confirms the reasonability of payout date and net revenue.

In 2014, Alberta Energy revisited the requirement to add clarity and detail to it. Alberta Energy met with industry to propose the updates and changes to the requirement on December 3, 2014, and to address any concerns industry may have. Consultations continued throughout 2014 until April 2015. Industry's feedback was considered and the details of the reserves requirement have been finalized.

Reserves Requirement

Applications requiring an economic analysis must follow the reserves requirement detailed in Appendix A and Appendix B of this Information Bulletin. Applications not requiring an economic analysis do not require reserves to be submitted. If you are unsure if your application requires an economic analysis, please contact Alberta Energy at OSRApplications.Energy@gov.ab.ca.

OSR Economic Evaluation Spreadsheet

As discussed in the December 3, 2014 meeting with industry, the update to the reserves requirement has necessitated a revision of the OSR Economic Evaluation spreadsheet. The update to the OSR Economic Evaluation spreadsheet will be forthcoming and when a new spreadsheet is available it will be communicated with industry through a separate Information Bulletin. In the interim, industry is advised to report combined reserves and resources volumes in existing versions of the OSR Economic Evaluation spreadsheet. Distinction between reserves and resources volumes should be explained in the notes section of the spreadsheet or communicated with the engineer assigned to the project approval.

Attachments

Attached to this Information Bulletin are two appendices:

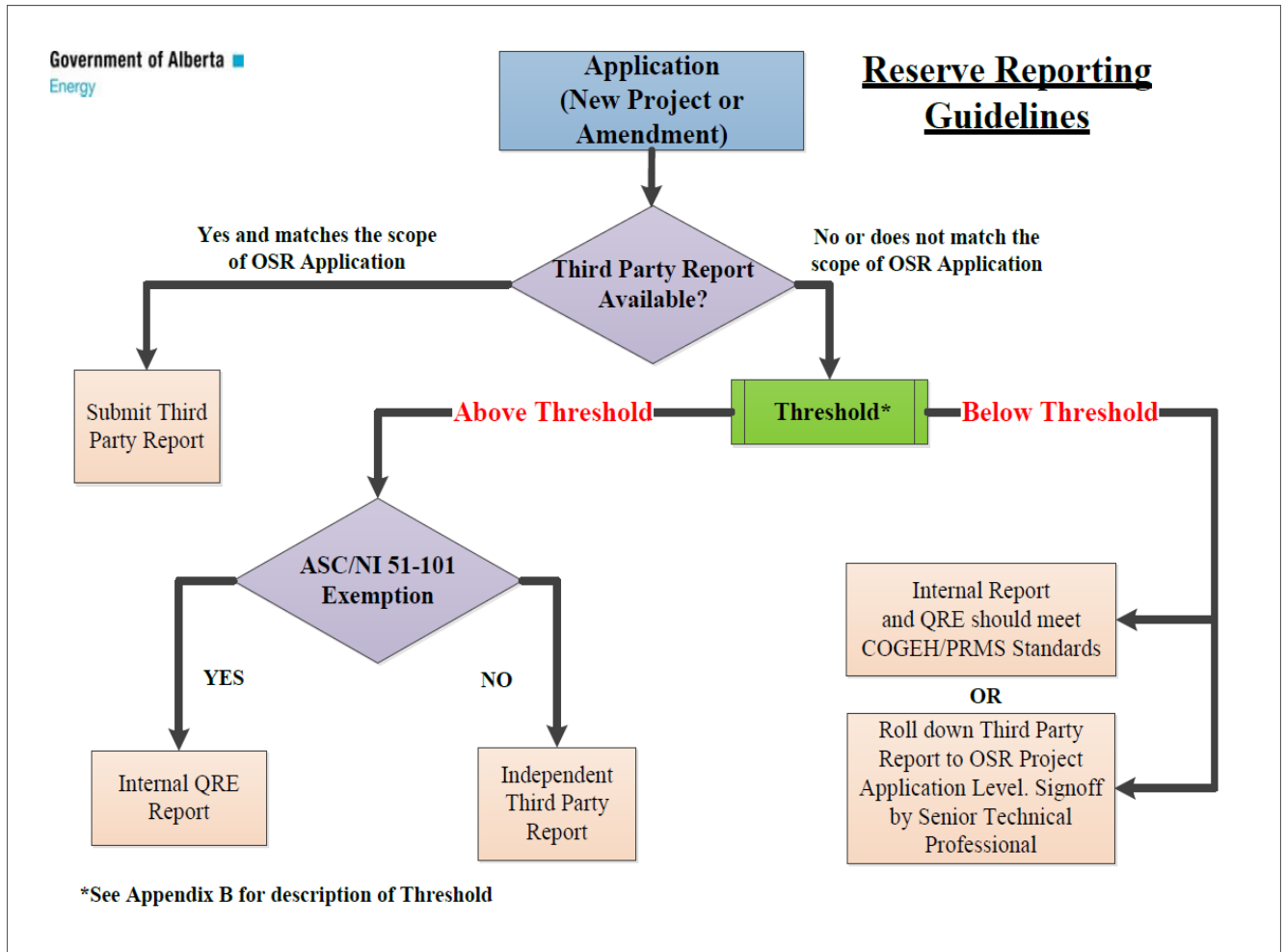
1. Appendix A – Provides a flow chart to determine what type of reserves report is required.
2. Appendix B – Provides guidelines clarifying the reserves requirement in detail.

Questions regarding this Information Bulletin may be directed to:

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APPENDIX A – Reserves Requirement Flow Chart



APPENDIX B – Reserves Requirement Guidelines

Note: Applications requiring an economic analysis are required to follow the reserves requirement guidelines outlined below. Applications not requiring an economic analysis do not require reserves to be submitted. If you are unsure if your application requires an economic analysis, please contact Alberta Energy at OSRApplications.Energy@gov.ab.ca.

Quick Checklist

To meet the reserves requirement, please submit the following:

- Cover Letter (if required)
- Exemption order from the Alberta Securities Commission (if applicable)
- Reserves report according to the Reserves Report Content Guidelines section below
- Signoff
- Plat map – maps highlighting exact lands that were evaluated to report the reserves volume

Reserves and Resources

Alberta Energy is requesting 2P (Proven + Probable) reserves (best estimate). Operators can include 2C resources (best estimate) if resources are necessary to support and justify the project economics. Alberta Energy only expects to see resources in exceptional cases. In addition, if an operator prefers to submit 1P or 1C reserves or resources (low estimate) this will also be accepted. The calculation of both reserves and resources must be prepared in accordance with COGEH (Canadian Oil and Gas Evaluators Handbook) or with PRMS (Petroleum Resource Management System) standards.

Threshold and Third Party Report Requirement

Alberta Energy has set a threshold above which a Third Party reserves report (or equivalent due to an exemption by the Alberta Securities Commission) is required. A threshold of **100 million barrels** was set to minimize the risk to the Crown. In future, Alberta Energy will be periodically reassessing the threshold to continue to minimize the risk to the Crown going forward. Details on the requirements of Third Party reserves reports are found in the “Reserves Report Content Guidelines” section of these guidelines.

Please refer to the flow sheet in Appendix A to help determine what type of reserves report will be accepted for an application.

Applications Below the 100 Million Barrel Threshold

A Third Party reserves report is generally not required for applications falling below the threshold. However, if the operator has an appropriate Third Party reserves report available, Alberta Energy will accept it. If the Third Party reserves report is for a larger area of land than what the application is for, the Third Party reserves report will still be accepted, but it must be accompanied by a Cover Letter. Details on the requirements of the Cover Letter are found in the “Cover Letter Guidelines” section of these guidelines.

Alternatively, the operator can choose to prepare and submit an internal reserves report compiled by a Qualified Reserves Evaluator (QRE) as defined in COGEH Vol 1: Section 3. The report must meet COGEH standards (Canadian Oil and Gas Evaluators Handbook). Details on the requirements of internal reserves reports are found in the “Reserves Report Content Guidelines” section of these guidelines.

Please note that Alberta Energy may still, in exceptional circumstances, request a Third Party reserves report for applications that fall below the threshold.

Determining if an Application Exceeds the Threshold

The following scenarios illustrate how to determine if the threshold has been exceeded. These examples are for illustrative purposes only, and are intended as a guide.

- For new applications, the threshold is exceeded if the cumulative production forecast entered on the New Application tab of the OSR Economic Evaluation spreadsheet is above 100 million barrels
- For most amendment applications, the threshold is exceeded if the cumulative production forecast entered on the Project Amendment Application tab of the OSR Economic Evaluation spreadsheet is above 100 million barrels
- For most amendment applications converting Potentially Includable Lands and Leases (PILL) to Project Lands and Leases, only the New Application tab of the OSR Economic Evaluation spreadsheet is filled out. The threshold is exceeded if the cumulative production forecast entered on this tab is above 100 million barrels.

Reserves Report Content Guidelines

To receive consistent information from all operators, the following guidelines are provided for reserves report content. These guidelines pertain to all reserves reports, regardless of if the application is above or below the threshold, or if the report is Third Party or not.

Alberta Energy understands that not all items will be applicable in certain cases. Additional information may be required depending on the complexity of the application. It is expected that operators provide sufficient information to justify the reserves numbers provided in an application. Alberta Energy may request supplemental information if required.

Note: Internal reserves reports must be prepared and signed by a QRE (as defined in COGEH Vol 1: Section 3).

Reserves reports must:

1. Comply with COGEH or PRMS standards
2. Contain an appropriate signoff: Third Party signoff for Third Party reserves reports or internal QRE signoff for internal reserves reports.
3. Contain information on the project:
 - a. Land Description
 - b. Development Plan (Drilling Well/Type, Well Density/Pattern, Production Years)
 - c. Recovery Methods (OSR Project Approval)

- d. Bitumen in-place by Category
4. Contain the methodology used for bitumen reserves (and resource, if applicable) and recovery factors:
 - a. Volumetric (Geological, Petrophysics, Core Analysis, Geophysical Data, Reservoir Engineering Data)
 - b. Analogues (Recovery factors at reservoir characteristics and Recovery methods)
 - c. Decline Analysis/Type Curve Match
 - d. Reservoir Simulation
5. Contain a Yearly Production Forecast and Price Forecasts
6. Contain a plat map showing the area of the reserves and resources reported. In general, this area must match the approximate area of land applied for in the OSR application. Alberta Energy defines plat maps as maps, drawn to scale, that illustrate the exact lands (as per legal land descriptions) that were evaluated to report the reserves volume submitted in the application. The plat map must have lands highlighted that depict reserves and lands highlighted that depict resources.

Note: Only applications below the threshold are allowed to submit Third Party reports for a larger area than the land applied for in the application. In this case, a Cover Letter must accompany the reserves report. Details on the requirements of the Cover Letter are found in the “Cover Letter Guidelines” section of these guidelines.

Cover Letter Guidelines

Please note that the individual signing the cover letter must be available for contact by Alberta Energy.

Cover Letter drafted by the operator is required for:

- Case 1: Reserves reports prepared internally by a QRE
- Case 2: Cases where a Third Party reserves report is submitted, but it is for a larger land area than what is being applied for in the OSR application. Note that case 2 is only accepted for applications below the threshold.
- Case 3: Exceptional circumstances where the reserves and resources in the reserves report do not reconcile with the production forecast in the OSR Economic Evaluation spreadsheet.

The following are guidelines for the Cover Letter.

For all cases, the Cover Letter must contain:

- Total volumes for reserves (1P or 2P) and resources (1C or 2C) (if applicable) included in the application. It is expected that these volumes reconcile with the production in the OSR Economic Evaluation spreadsheet.
- A statement acknowledging that the production forecast reported in the OSR Economic Evaluation spreadsheet complies with the attached report, and with the volumes in the

Cover Letter. If they do not reconcile, include detailed justification to explain the reason for the discrepancy. Include attachments if necessary.

- A list of contingencies if resources are reported: economic, technical, legal, regulatory...

For Case 1 and Case 3, also include:

- A sign off by a QRE.

For Case 2, also include:

- An attached plat map or location description (LSD level) of the reserves and resources volumes reported in the Cover Letter. This plat map must match the approximate area of the reserves and resources applied for in the OSR application.
- A statement confirming that the reserves and resources volumes in the Cover Letter came directly from the Third Party database that corresponds to the attached Third Party reserves report.
- A sign off by a Senior Technical Professional with experience in Reserves Evaluation and in good standing with APEGA (Association of Professional Engineers and Geoscientists of Alberta).

Reconciliation with the OSR Economic Evaluation Spreadsheet

Alberta Energy expects that the data (i.e. total volumes, production forecast, drilling and abandonment plan, well count...) reported in the reserves report reconciles with the data submitted in the OSR Economic Evaluation spreadsheet. Any deviation from the reserves report must be addressed in a Cover Letter explaining reasons and assumptions that led to the disagreement. Additional data or documents justifying the discrepancy must be attached.

It should be noted that Alberta Energy expects disagreements in rare situations and operators must provide a sound and detailed justification explaining these discrepancies. After carefully reviewing the justification, Alberta Energy may either accept the disagreement or may consider reducing the production forecast in the OSR Economic Evaluation spreadsheet to bring it more in line with the reserves report. This will be determined on a case by case basis, depending on the circumstances and explanation for the disagreement.

Joint Ventures

In cases of joint venture OSR Applications, if the operator has access to reserves data that justifies what is being applied for, it is likely that the data submitted only by the operator will provide sufficient information.

In certain circumstances, it may be necessary to require reserves information from all owners. For example: the operator only has reserves for the portion of the leases they own, the amount is less than the production forecast submitted in the application, and there is no clean way to estimate the full reserves amount based on ownership percentages. As explained previously, it is expected that the reserves provided reconcile with the production forecast in the OSR Economic Evaluation spreadsheet.