

Directive 035

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Baseline Water Well Testing Requirement for Coalbed Methane Wells Completed Above the Base of Groundwater Protection

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1 Introduction

The Alberta Environment and Parks (AEP) [Standard for Baseline Water-Well Testing for Coalbed Methane/Natural Gas in Coal Operations](#) (AEP standard) is effective May 1, 2006. Baseline water well testing is mandatory for companies wanting to drill a new well or complete or recomplete wells for the purpose of producing coalbed methane (CBM) above the base of groundwater protection (BGWP). The test data and analyses are to be submitted to AEP and the landowner/occupant.

The AEP standard currently only applies to the development of CBM above the BGWP. For clarification, CBM wells are wells completed or recompleted in a coal seam to produce methane.

The Alberta Energy Regulator (AER) encourages oil and gas companies to continue current practices of collecting baseline water quantity and quality data for water wells in close proximity to any energy development well prior to drilling and to submit these data to AEP.

1.1 AER Requirements

Following AER requirements is mandatory for the responsible duty holder as specified in legislation (e.g., licensee, operator, company, applicant, approval holder, or permit holder). The term “must” indicates a requirement, while terms such as “should,” “recommends,” and “expects” indicate a recommended practice.

Each AER requirement is numbered.

Information on compliance and enforcement can be found on the AER website.

1.2 What's New in This Edition

Directive 035 has been brought up to AER formatting standards and administrative changes have been made to the text (e.g., references to the EUB have been replaced with the AER). In addition, AER requirements have been numbered.

2 Well Licensing and Recompletion Requirements

To support implementation and to confirm that applicants and licensees have met the AEP standard requirements, the AER is modifying its well licence and recompletion requirements.

- 1) If audited, companies must provide the required documentation to confirm compliance with the AEP standard.

2.1 Well Licensing Under *Directive 056*

2.1.1 CBM Wells Above the BGWP Licensed on or after May 1, 2006

- 2) CBM wells above the BGWP licensed on or after May 1, 2006, must meet the AEP standard and the following requirements.
- 3) Prior to filing a new well licence application for CBM above the BGWP, an applicant must offer to test any active water wells and observation wells within a 600 metre (m) radius of the proposed CBM well.
- 4) If no such wells are identified within a 600 m radius, the applicant must offer to test the nearest water well or observation well within a 600 to 800 m radius.

In either case, the applicant must document the process in accordance with the AEP standard.

- 5) When filing a well licence application, an applicant must attach a cover letter that states its intent to drill a CBM well above the BGWP and that the offer to test water wells and observation wells was made, as required by the AEP standard.
- 6) The applicant must submit a survey plan or map that shows all active water wells and observation wells locations referred to above.

- 7) GPS coordinates of active water wells and observation wells must be provided on maps.
- 8) Where offers to test are accepted, an applicant or licensee must test water wells and observation wells in accordance with the AEP standard prior to drilling the CBM well.
- 9) The applicant or licensee must provide the AEP and landowners/occupants with copies of all the tests and analyses within two months of testing.
- 10) If the information cannot be provided within two months, the applicant or licensee must advise the landowners/occupants of the reason for the delay.
- 11) If selected for audit review, the licensee must submit documentation in accordance with the AEP standard. As a minimum, this must include documentation demonstrating that offers to test water wells and observation wells occurred prior to the filing of the application by identifying the landowners/occupants, the date contact occurred, the status of the offers, and the agreed-upon timeline for water/observation well testing and the drilling of the CBM well.

2.1.2 CBM Wells Above the BGWP Licensed Prior to May 1, 2006

Licensees of CBM wells licensed prior to May 1, 2006, and drilled and completed after June 1, 2006, must meet the following requirements:

- 12) Prior to drilling a CBM well above the BGWP, the licensee must offer to test any active water wells and observation wells within in a 600 m radius of the proposed well.
- 13) If no such wells are identified within a 600 m radius, the licensee must offer to test the nearest water well or observation well within a 600 to 800 m radius.
- 14) In either case, the licensee must document the process in accordance with the AEP standard and prepare a survey or map showing water and observation well locations referred to above.
- 15) GPS coordinates of active water wells and observation wells must be provided on maps.
- 16) Where offers to test are accepted, a licensee must test water wells and observation wells in accordance with the AEP standard prior to drilling the CBM well.
- 17) The licensee must provide AEP and landowners/occupants with copies of all the tests and analyses within two months of testing.
- 18) If the information cannot be provided within two months, the licensee must advise the landowners/occupants of the reason for the delay.

2.2 Completions and Recompletions

For wells licensed and drilled prior to May 1, 2006, and completed or recompleted in a coal seam above the BGWP after June 1, 2006, an application is not required prior to completions or recompletions.

- 19) Licensees are required to meet the AEP standard and the applicable [*Directive 059: Well Drilling and Completion Data Filing Requirements*](#) data submission requirements.
- 20) In addition, the licensee must keep and provide the following process documentation if audited:
 - a) The licensee must have offered to test any active water wells and observation wells within a 600 m radius of the CBM well.
 - b) If no such wells were identified within a 600 m radius, the licensee must offer to test the nearest water well or observation well within a 600 to 800 m radius.
 - c) In either case, the licensee must have documented the process in accordance with the AEP standard.
 - d) Where offers to test are accepted, the licensee must have conducted water well and observation well testing in accordance with the AEP standard prior to completing or recompleting the CBM well.
 - e) The licensee must provide AEP and landowners/occupants with copies of all the tests and analyses within two months of testing.
 - f) If the information cannot be provided within two months, the licensee must advise the landowners/occupants of the reason for the delay.
 - g) The licensee must have a survey or map showing water and observation well locations referred to above.
 - h) GPS coordinates of active water wells and observation wells must be provided on maps.