

## Gas Well Absolute Open Flow (AOF) Tests

### Basic Requirements:

All gas wells, with the exception of wells completed in the Milk River or Medicine Hat Sand, must be deliverability tested with an approved method within 30 days after any completion, stimulation, reconditioning or recompletion.

Milk River or Medicine Hat gas wells must be flow tested by means of a single point flow test with a minimum flow time of 48 hours. This testing requirement should be specified in the gas pool Minister's Order. This information must be submitted to the Ministry.

A test to verify the stabilized flow capability of every gas well must be carried out during the second year of production. Normally all that is required for this test is a measure of the stabilized bottomhole flowing pressure and flow rate under stabilized operating conditions, followed by measurement of the reservoir pressure from a pressure buildup survey.

### Notification:

The operator must inform the appropriate field office at least 24 hours in advance of test, giving details of the proposed test.

The Petroleum Tenure Branch must be notified and permission must be obtained for any testing of potential gas wells on Crown permit lands or drilling reservations.

### Approved Test Methods:

The approved test method is the four-point isochronal or modified isochronal method (section 79 of *The Oil and Gas Conservation Regulations, 2012*). Extended flow periods shall not exceed 72 hours unless otherwise approved by Resource Management Branch. The maximum volume of produced and flared gas during the test is 500 thousand cubic metres (17.7 mmcf). Approval by Resource Management Branch is required for all tests involving variation from the requirements and restrictions listed above. Any such requests must be in writing, outlining the proposed test program in detail.

Other test methods such as a single point test must be approved on an individual well basis and will only be considered for wells with poor deliverability for which flow stabilization times would be excessive or for re-testing of wells where an approved test has been previously conducted.

All gas produced during the test must be accurately metered and flared. The Ministry supports in-line testing of gas wells.

Test Design Criteria:

It is the operator's responsibility to design and conduct individual isochronal well tests so that an accurate estimate of open flow potential may be calculated. Isochronal flow periods must be of sufficient duration to eliminate wellbore storage effects. The extended flow period must be of sufficient duration to allow for stabilization of the flow rate.

The Ministry may require the re-testing of a gas well if the test results are determined to be invalid.

Information to be Submitted:

The test data and interpretation of results for a gas well must be submitted through IRIS to the completion interval within 30 days of completion of the test. The test results submitted shall include a complete analysis, raw data, field notes and a graph of the sandface deliverability. A gas analysis should normally be carried out on each separate gas reservoir and the analysis should accompany the test results.

Apply to Waive 30-Day AOF Test or Apply for a Well Test Waiver

A waiver of the 30-Day AOF Test will remove the 30-day requirement of the well testing so that it can be performed at a later date, and waiver of the gas well test will completely remove the testing requirement.

A waiver of the 30-day requirement or a waiver of the gas well test are rarely issued. If circumstances arise that make it difficult to perform the test within the 30-day period, you may apply to Waive the 30-Day AOF Test. If circumstances arise that make it difficult to perform the test, you may apply for a Well Test Waiver.

Please submit to IRIS the details of why a waiver is required, and include any technical analysis which supports your reasoning.

Note: Expenditures are not a valid reason to apply for a waiver.