
Allowable Rate of Production: Gas Wells

Directive PNG011

June 2026

Revision 2.0

Governing Legislation:

Act: *The Oil and Gas Conservation Act*

Regulation: *The Oil and Gas Conservation Regulations, 2012*

Order: 70/26

Record of Change

Revision	Date	Description
0.0	September, 2015	Draft
1.0	November, 2015	Final Version, Updated Directive Number
2.0	June, 2026	General organization and wording updates to align with changes in other Directives; and migration of technical requirements from a repealed Guideline (Gas Well Absolute Open Flow Tests) see Section 7 and Appendix 3.

Contents

1.	Introduction.....	4
1.1	Governing Legislation	4
1.2	Definitions.....	4
2.	Allowable Rates of Production	5
2.1	Minimum Allowable	5
2.2	Daily Allowable	5
2.3	Calculation of Daily Allowable	6
2.4	Modification to the Calculation of the Daily Allowable.....	6
2.5	Daily Allowable Effect on Ultimate Recovery.....	6
3.	Effective Date of Daily Allowable.....	6
3.1	Minimum Allowable	6
3.2	Daily Allowable Above the Minimum	6
4.	Good Production Practice	7
4.1	Good Production Practice Authorized in a Defined Pool.....	7
4.2	Good Production Practice Authorized to Individual Gas Well	7
5.	Underproduction	7
6.	Overproduction	7
6.1	Correction of Overproduction	7
6.2	Failure to Correct Overproduction.....	7
7.	Absolute Open Flow Test.....	7
7.1	Notification	8
7.2	Information to be submitted	8
7.3	Waiver and Extension of the Absolute Open Flow Test	8
	Appendix 1: Example of a Completed Application Form: <i>Daily Allowable for Gas</i>	9
	Appendix 2: Example Calculations for Daily Allowable for Gas Wells Subject to Off-Target Penalties.....	10
	Appendix 3: Acceptable Absolute Open Flow Testing Methods.....	10

1. Introduction

This Directive sets out the policies and requirements of the Saskatchewan Ministry of Energy and Resources (ER) for regulating the production of gas wells in Saskatchewan. The purpose of the Directive is to ensure equitable distribution of natural resources and to maximize the ultimate recovery from a pool. It addresses topics including the assignment of production limits, the methodology used to calculate production limits based on the well type and location and regulatory oversight related to underproduction and overproduction.

Questions concerning the requirements set out in this document should be directed to the ER Service Desk at 1-855-219-9373 or email at ER.servicedesk@gov.sk.ca.

1.1 Governing Legislation

The requirements outlined in this Directive are authorized under and supported by:

- *The Oil and Gas Conservation Act (OGCA)*
- *The Oil and Gas Conservation Regulations, 2012 (OGCR)*
- Associated Directives and Guidelines:
 - *Directive PNG006: Horizontal Oil and Gas Well Requirements* (Directive PNG006)
 - *Directive PNG007: Off Target Well Completion Requirements* (Directive PNG007)
 - *Directive PNG012: Allowable Rate of Production – Oil Wells* (Directive PNG012)
 - *Directive PNG013: Well Data Submission Requirements* (Directive PNG013)
 - *Directive PNG017: Measurement Requirements for Oil and Gas Operations* (Directive PNG017)
 - *Guideline PNG021: Determining Drainage Units and Target Areas* (Guideline PNG021).

Clauses 17(1)(d) and (e) of the OGCA provide the minister with the authority to regulate, limit and allocate production from one or more gas wells. Subsection 33(2) of the OGCR contains regulations specific to allowable rates of gas production. For horizontal gas well requirements, refer to Directive PNG006. Other requirements that are pertinent to this topic may be found in Directive PNG007.

As specified in the legislation, it is the responsibility of all operators to be aware of ER requirements and to ensure compliance prior to and during the productive life of a well.

1.2 Definitions

Absolute open flow (AOF) potential: is the rate at which a gas well would produce against zero sandface backpressure as determined from a gas well test.

Daily allowable (DA): is the daily allowable rate of production authorized by ER for a well completion, if an operator has applied for a rate above the minimum allowable.

Drainage unit: is the area allocated to one or more well completions for the purposes of drilling and producing.

Gas well test: is a 4-point isochronal or modified isochronal test, or any other approved test.

Good production practice (GPP): is production of gas from a well at a rate not governed by a defined allowable rate of production. The rate is limited to what can be produced on the basis of technical parameters without adversely and significantly affecting the ultimate recovery of gas, or the opportunity of other owners to obtain their share of production from the pool.

Minimum allowable: is a daily rate of production automatically assigned by ER to an on-target or off-target well that is not within an assigned pool where GPP rates have been granted. The minimum daily allowable for gas wells is 10 000 cubic metres per day (m³/d).

Monthly allowable: is the product of the DA or the minimum allowable multiplied by the number of calendar days in the month.

Monthly production limit: is the product of the DA or the minimum allowable multiplied by the number of calendar days in the month that the well has produced.

Off-target: is a well not completed within the prescribed target area of the drainage unit (see Directive PNG007 for more information on target areas and drainage units).

On-target: is a well completed within the prescribed target area of the drainage unit.

Overproduction: is the production from a gas well in excess of the monthly allowable or monthly production limit in a given month.

Underproduction: is the production from a gas well less than the monthly allowable or monthly production limit in a given month.

2. Allowable Rates of Production

2.1 Minimum Allowable

For gas wells that are completed on-target or off-target, ER assigns a minimum daily allowable rate of production of 10 000 m³/d, with the exception of wells that are within a defined pool where GPP has been granted (see Guideline PNG021 for guidance on determining the location of defined pools). The minimum allowable is applied automatically to the gas well.

2.2 Daily Allowable

An operator may apply for a daily production rate that is more than the minimum allowable by submitting an Application for Daily Allowable through the Integrated Resource Information System (IRIS) along with a completed *Application for Daily Allowable – Gas Form*. Once such an application is received, ER will calculate a suitable daily allowable production rate based on the conditions outlined in subsection 2.3 below. A completed example of this form is shown in Appendix 1.

2.3 Calculation of Daily Allowable

When ER receives an application for a daily production rate above the minimum allowable, a suitable production rate is determined as follows:

- For an on-target gas well, the daily allowable will be equal to the absolute open flow (AOF) potential of the well multiplied by 20 per cent.
- For an off-target gas well, the daily allowable will be equal to the AOF potential of the well multiplied by 20 per cent, with the product of that calculation multiplied by the off-target penalty (see Directive PNG007 for more details on off-target penalties). If the off-target penalty has been waived by ER, the daily allowable will be the AOF potential of the well multiplied by 20 per cent.

The method for determining an off-target penalty, including a sample calculation, is shown in Appendix 2 of this Directive. The method for determining the net productive area for off-target wells is outlined in Appendix 2 of Directive PNG012 and the method for applying for a waiver of off-target penalty is explained in Directive PNG007.

2.4 Modification to the Calculation of the Daily Allowable

Notwithstanding subsections 2.1 and 2.2 above, if ER deems that the method of determining the daily allowable rate of production results in an inequitable distribution of the resource among the operators or mineral rights owners, the daily allowable rate of production may be determined by some other method by ER.

2.5 Daily Allowable Effect on Ultimate Recovery

If the ultimate recovery of gas is being adversely affected from a pool, ER may modify the gas well daily allowable rate of production for all producers to a value that is appropriate for the pool.

3. Effective Date of Daily Allowable

3.1 Minimum Allowable

The effective date for a gas well to produce at a rate equal to the minimum allowable, as specified in subsection 2.1 above, is the date of first production from that well.

3.2 Daily Allowable Above the Minimum

The effective date of a daily allowable rate of production above the minimum rate, as specified in subsection 2.2, is based on the date that ER receives an application for an increased daily rate of production.

- If an application for an increased daily rate of production is received by ER **prior to** the date of first production from a well, then the effective date of the daily allowable is the date of first production from that well.

- If an application for an increased daily rate of production is received by ER **after** the date of first production from a well, then the effective date of the daily allowable is the first day of the first calendar month following the date of receipt of the application.

4. Good Production Practice

4.1 Good Production Practice Authorized in a Defined Pool

If a gas well is producing from an established defined pool that has been granted GPP rates of daily production, then the producer must follow those production guidelines, unless otherwise instructed by ER. No application for a daily allowable rate of production is necessary for these types of wells.

4.2 Good Production Practice Authorized to Individual Gas Well

Any individual gas well that was granted GPP before the date this Directive came into effect will still be authorized to produce at that production rate, unless otherwise instructed by ER.

5. Underproduction

Where there is underproduction from a gas well in any given month, the amount of underproduction cannot be added to the monthly allowable in any succeeding month to reduce overproduction.

6. Overproduction

All overproduction from a gas well is cumulative until such time as the overproduction is corrected.

6.1 Correction of Overproduction

The operator of a gas well is responsible for keeping a record of current and cumulative overproduction and, without notification from ER, will take measures to correct any overproduction as soon as possible by underproducing the well.

6.2 Failure to Correct Overproduction

If ER determines that the operator of a gas well has failed to correct the overproduction or continues to exceed the monthly allowable or the monthly production limit, the gas well may be ordered shut in or sealed.

7. Absolute Open Flow Test

With the exception of wells completed in the Milk River or Medicine Hat Sand, all gas wells must be deliverability tested with an approved method within 30 days after any completion, stimulation, reconditioning or recompletion. The approved test methods are the 4-point isochronal test or the

modified isochronal test.

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.

A test may be required to verify the stabilized flow capability of a gas well after the first year of production using an approved method.

For any variation from the requirements and restrictions listed above, a Well Test application must be submitted through IRIS for approval prior to conducting the test. See Appendix 3 for guidance on the acceptable testing methods.

7.1 Notification

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

As per *The Oil and Gas Tenure Registry Regulations*, ER must be notified and permission must be obtained to test any fluids out of a well that is on Crown permit lands. To request permission to test, email the ER Service Desk at er.servicedesk@gov.sk.ca a minimum of seven days prior to the test commencing.

7.2 Information to be Submitted

A 4-point isochronal or modified isochronal test must be conducted. Additionally, the resultant test data must be submitted to ER, in accordance with Directive PNG013.

All gas produced during the test must be accurately metered and flared. ER supports in-line testing of gas wells. For further details on submission requirements, refer to Directive PNG013. For gas reporting requirements, refer to Directive PNG017.

7.3 Waiver and Extension of the Absolute Open Flow Test

An application may be submitted through IRIS, to either extend the 30-day timeframe for completing an AOF test or fully waive the AOF testing requirement. The request will be considered and must include detailed rationale and any technical supporting documentation. If an extension is granted, the 30-day deadline will be adjusted to the requested date, allowing the test to be performed later. If a full waiver is granted, the obligation to perform the AOF test will be completely removed.

A waiver of the AOF test is rarely issued. If circumstances arise that make it difficult to perform the test within the 30-day period, an application may be submitted to extend the timeframe. If circumstances arise that make it difficult to perform the test, an application may be submitted to waive the AOF test requirement.

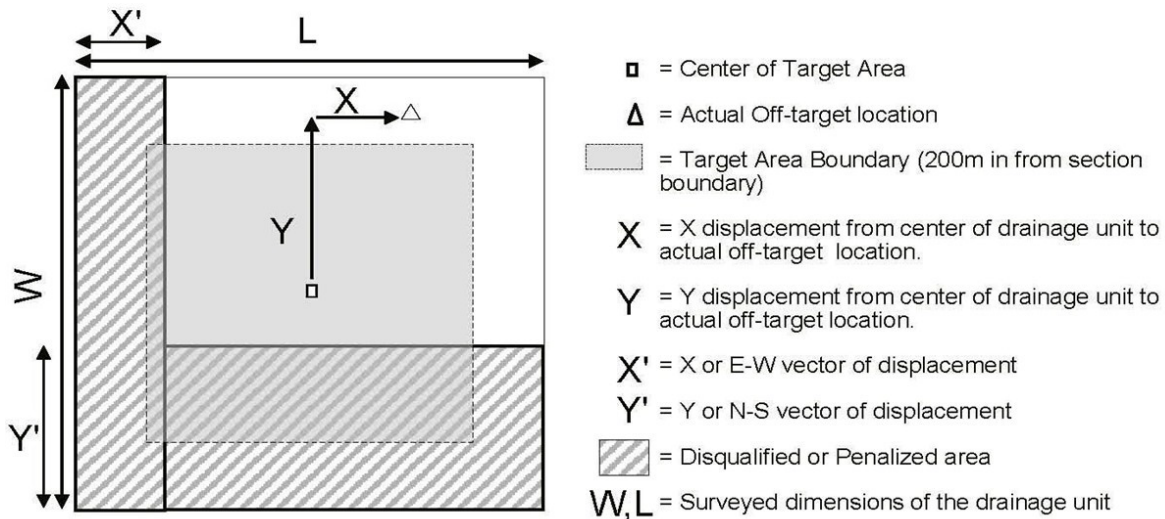
Expenditures are not a valid reason to apply for a waiver. Additionally, section 7 of this Directive does not apply to wells in reservoirs used for gas storage, unless otherwise ordered by the minister.

Appendix 1: Example of a Completed Application Form: *Daily Allowable for Gas*

Saskatchewan											Energy Regulation Division		
APPLICATION FOR DAILY ALLOWABLE - GAS													
Part I - GENERAL INFORMATION													
BOTTOM HOLE LOCATION						SURFACE LOCATION							
LSD	SEC	TWP	RGE	M		LSD	SEC	TWP	RGE	M		LICENCE NUMBER	
7	21	32	21	W 3		7	21	0	32	W 3		01A234	
Pool Name: Dodsland North Viking Gas Pool						Pool Code: 227322							
Pay Interval: 676 - 679, 680 - 682.5 mKB						Contact Intervals: 676 - 679 mKB							
Assigned Area:													
Legal description of Drainage Unit (D.U.):						5/2 21-032-21 W3M							
Number of Legal Subdivisions in D.U.:						Actual Number of hectares in D.U.:							
8						129.5							
Have you mineral leases for entire D.U.:						Have you pooling agreements for entire D.U.:							
☒ yes ☐ no						☐ N.A. ☒ yes ☐ no							
Test Data:													
Date:			mm dd yyyy			Type:			mm dd yyyy			Other:	
11			1			2025			☐ 4-Point Isochronal ☒ 4-Point Modified Isochronal				
Absolute Open Flow Capacity:						Daily Allowable Applied for:							
75						15							
10 ³ m ³ /d						10 ³ m ³ /d							
Part II - REQUIRED ATTACHMENTS													
☒ Portion of well logs showing pool, pay, and contact intervals													
☒ Gas Well Test in accordance to Section 79 of <i>The Oil and Gas Conservation Regulations, 2012</i>													
Part III - APPLICANT INFORMATION AND DECLARATION													
Applicant Name: ☒ Mr. ☐ Ms. John Smith													
Telephone #: 306-123-4567 ext. Email Address: test@ABCPet.com													
Company Name: ABC Petroleum Inc.													
Company Address: 123 Test St., Regina, SK													
By signing below, I hereby certify that the application form and required attachments are complete and accurate. Furthermore, I acknowledge that the Ministry of the Energy and Resources may reject the application and that I may be required to resubmit a new application.													
Signature of Applicant:						Date: 11 19 2025							
						mm dd yyyy							
Part IV - SUBMISSION OF APPLICATION													
Submit the application electronically, in PDF file format, via the Ministry of the Energy and Resources Integrated Resource Information System (IRIS) at www.saskatchewan.ca/IRIS . IRIS is an online business system that supports the development and regulation of Saskatchewan's energy and resources industry. Through IRIS, the oil and gas industry completes regularly performed business activities and regulatory tasks with the province online.													
(for ministry use only)													
Test Data:													
Date:			mm dd yyyy			Type:			mm dd yyyy			Other:	
						☐ 4-Point Isochronal ☐ 4-Point Modified Isochronal							
Absolute Open Flow Capacity:						First Production Date:							
						mm dd yyyy							
Daily Allowable Calculation:						Other:							
☐ AOF X 20% X OTW Penalty Factor ☐ AOF X 20%													
Remarks:													
Pool Name:						Pool Code:							
Effective Date:			mm dd yyyy			Date of Issue:			mm dd yyyy			Authorized DA:	
												10 ³ m ³ /d	
Reviewed by:						Authorized by:							

Appendix 2: Example Calculations for Daily Allowable for Gas Wells Subject to Off-Target Penalties

**Off Target Gas Well
Calculation of Penalized Allowable**
(Based on a 1 Section Gas Drainage Unit)



GAS:

Penalized Daily Allowable = Sandface AOF x 20% x Penalty Factor

* note: minimum allowable assigned is $10 \times 10^3 \text{m}^3$

where: Penalty Factor = ((Qualified or Unpenalized Area) / Total Area))

Unpenalized Area = $(L - X') \times (W - Y')$

Total Area = $W \times L$ or the area of drainage unit

SAMPLE PENALTY FACTOR CALCULATION:

Off target well co-ordinates: 510.0 m West and 100.0 m South

If $L=1609.2$ m and $W=1609.2$ m, then $X'=294.6$ m and $Y'=704.6$ m

Penalty Factor = $[(1609.2 - 294.6) \times (1609.2 - 704.6)] / (1609.2 \times 1609.2)$

Penalty Factor = $(1314.6 \times 904.6) / 2589524.6 = 0.459$

Appendix 3: Acceptable Absolute Open Flow Testing Methods

Acceptable Testing Methods

The approved test methods are the 4-point isochronal test or the modified isochronal test. The 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. Under certain conditions, an acceptable AOF testing method may be approved if an accurate estimate of the well's deliverability under stabilized conditions is obtained.

A gas fluid analysis should normally be carried out on each separate gas reservoir and the analysis should accompany the test results. Refer to Directive PNG013 for fluid analysis requirements.

Extended flow periods shall not exceed 72 hours unless otherwise approved by ER. The maximum volume of produced and flared gas during the test is 500 thousand cubic metres (17.7 mmcf). Approval by ER 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 a well-by-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.

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.

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