



## PREAMBLE

The purpose of this preamble is to provide operators of Class 5C5 facilities (coal bed methane) disposal systems with some practical advice for complying with the conditions of this permit.

Under the Environmental Quality Act and Chapter 16, Wyoming Water Quality Rules and Regulations, a discharge to groundwater cannot be allowed unless a permit is obtained from the department. A subsurface discharge cannot be allowed which would render groundwater unsuitable for any use for which it was suitable before the discharge. Chapter 8, Wyoming Water Quality Rules and Regulations defines the uses that groundwater is suitable for. Obtaining coverage under this permit does not provide authority to pollute groundwater or surface water or cause public health or environmental impacts. As well as allowing an applicant covered under this permit to discharge to groundwater, this permit allows the department to obtain information from the permittee to conduct a review of the potential to impact public health and down gradient groundwater users. Based on this review the department may require the permittee to obtain an individual permit and conduct groundwater monitoring to characterize impacts. Under Section 7, Chapter 16, coverage under this permit shall not be extended to any facility if such a facility would be in violation of any state approved source water protection area. The discharge must meet Chapter 8 groundwater standards prior to injection. Facilities should be constructed to prevent spills from entering the discharge. Provision should be made for disinfecting the water using technology appropriate for drinking water prior to injection.

This general permit was limited to the north part of Johnson County and all of Sheridan County from the south line of Township 48 North to the Wyoming State Line on the north. This area was selected for this general permit because virtually all of the coal bed methane produced water in the area only meets the quality standards for Class III groundwater of the state under chapter 8, Wyoming Water Quality Rules and Regulations. In addition, coal bed methane produced water contains some constituents in this area which are different from the produced water in the eastern side of the basin. These facts make it possible to write a general permit which is relatively simple, since all receiving aquifers must be class III groundwater or aquifers of lesser quality.

Applicants should find the information easy to obtain and to complete the application forms. For assistance, please contact the UIC Program Supervisor at (307) 777-7095.

## TABLE OF CONTENTS

PREAMBLE .....	i
Part I. COVERAGE UNDER THIS PERMIT .....	1
A. <u>Permit Area</u> .....	1
B. <u>Facilities Covered Under This Permit</u> .....	1
C. <u>Facilities Not Covered Under This Permit</u> .....	5
D. <u>Operator May Choose Coverage By An Individual Permit</u> .....	5
E. <u>Authorized Operations</u> .....	5
Part II. COVERAGE APPLICATION CONTENT .....	5
Part III. STANDARD PERMIT CONDITIONS .....	6
A. <u>Property Rights</u> .....	6
B. <u>Right to Access</u> .....	6
C. <u>Signatory Requirements</u> .....	6
D. <u>Certification</u> .....	6
E. <u>Advance Notice of Changes or Modifications</u> .....	7
F. <u>Noncompliance</u> .....	7
G. <u>Relevant Facts Omitted in Application</u> .....	7
H. <u>Construction and Performance Requirements</u> .....	7
I. <u>Abandonment or Conversion to Water Wells</u> .....	8
J. <u>Change of Ownership</u> .....	9
K. <u>Duty to Comply</u> .....	9
L. <u>Toxic or Hazardous Substances</u> .....	9
M. <u>Continuation of the Expired General Permit</u> .....	9
N. <u>Need to Halt or Reduce Activity Not a Defense; Stay of Permit Conditions</u> .....	9
O. <u>Duty to Mitigate</u> .....	9
P. <u>Duty to Provide Information</u> .....	9
Q. <u>Penalties for Violations of Permit Conditions</u> .....	10
R. <u>Severability</u> .....	10
S. <u>State Laws</u> .....	10
T. <u>Proper Operation and Maintenance</u> .....	10
U. <u>Reopener Clause</u> .....	10
PART IV. MONITORING PROGRAM; RECORDS AND REPORTS .....	10
A. <u>General Requirements</u> .....	10
B. <u>Requirements for Monitoring the Discharge</u> .....	11
Part V. DEFINITIONS .....	12
A. "Administrator" .....	12
B. "Coal bed methane produced water" or "CBM water" .....	12
C. "Injection well" .....	12
D. "Operator" .....	12
E. "Source Water Protection Area" .....	12
F. "Wyoming Water Quality Standards" .....	12

## Part I. COVERAGE UNDER THIS PERMIT

### A. Permit Area

This permit covers all areas within Johnson County and all of Sheridan County from the south boundary of Township 48 North to the Wyoming state line on the north.

### B. Facilities Covered Under This Permit

1. This permit covers only facilities that inject through wells, and only facilities which inject into the Wasatch, Fort Union, Lance and/or Fox Hills Formations. There are no formations deeper than the Fox Hills Formation which contain usable groundwater. Companies who wish to inject into any formation deeper than the Fox Hills Formation should obtain a class II UIC permit from the Wyoming Oil and Gas Conservation Commission.
2. This permit covers existing 5C5 injection wells and will cover new 5C5 injection wells as they are constructed.
3. The following list of previously authorized injection wells may be covered under this General Permit. Coverage is contingent upon application for coverage. Those operators of existing wells which can be covered under this General Permit who fail to obtain coverage must apply for and obtain an individual permit no later than six (6) months from the date of this General Permit.

UIC FACILITY	COMPANY	PROJECT	T	R	SECTION
WYS 033-060	Energy Consulting and Operating LLC and VHJ Federated Oil and Gas Properties	Elder 12-9	53	81	9 NW¼SW¼
WYS 033-061		Elder 15-16	53	81	16 SW¼SE¼
WYS 033-035		Wild Horse Fox Hills Injection	54	76	19 SE¼NE¼
WYS 033-038	J.M. Huber Corporation	Huber Pilch 1M-2--57-83	57	83	2 NE¼NE¼
WYS 033-034		Huber Pilch 7A-3-57-83	57	83	3 SW¼NE¼
WYS 033-039		Huber Pilch 14-2-57-83	57	83	2 SE¼SW¼
WYS 033-036		Huber Pilch 8-4-57-83	57	83	4 SE¼NE¼
WYS 033-040		Huber Pilch 10-4-57-83	57	83	4 NW¼SE¼
WYS 033-041		Huber Pilch 13-4-57-83	57	83	4 SW¼SW¼
WYS 033-042		Huber Dewey SRNE5 57-83	57	83	5 NE¼NE¼
WYS 033-043		Huber LPD 7-8-57-83	57	83	8 SW¼NE¼
WYS 033-044		Huber LPD SRSW 8 57-83	57	83	8 SE¼SW¼
WYS 033-045		Huber LPD SRSE8 57 83	57	83	8 NW¼SE¼
WYS 033-046		Huber LPD SRSW9 57-83	57	83	9 SW¼SW¼
WYS 033-047		Huber LPD SRNW 9 57-83	57	83	9 SE¼NW¼
WYS 033-048		Huber Taylor SRNW 16 57-83	57	83	16 SW¼NW¼
WYS 033-049		Huber Taylor SRSE 16 57-83	57	83	16 SW¼SE¼
WYS 033-050		Huber LPD SRSE 17 57-83	57	83	17 NE¼SE¼
WYS 033-051		Huber LPD SRNE17 57-83	57	83	17 NW¼NE¼
WYS 033-052		Huber Pilch 10-35-58-83	58	83	35 NW¼SE¼
WYS 033-053		Huber Pilch 13M-35-58-83	58	83	35 SW¼SW¼
WYS 033-054		Huber Trembath SE36-35-58-83	58	83	36 NW¼SE¼

UIC FACILITY	COMPANY	PROJECT	T	R	SECTION
WYS 033-055		Huber Pilch 14-34-58-83	58	83	34 SE $\frac{1}{4}$ SW $\frac{1}{4}$
WYS 033-056	J.M. Huber Corporation	Trembath SRSE26 58-83	58	83	26 SW $\frac{1}{4}$ SE $\frac{1}{4}$
WYS 033-057		Trembath SRNW 35 58-83	58	83	35 SE $\frac{1}{4}$ NW $\frac{1}{4}$
WYS 033-058		Huber Trembath NW36-58-83	58	83	36 SW $\frac{1}{4}$ NW $\frac{1}{4}$
WYS 033-059		Lance Creek Oil and Gas	Green Mansion #32-32	58	83
WYS 019-019	Michiwest Energy, Inc.	Beta Injection Well 1	48	77	15 NE $\frac{1}{4}$ SW $\frac{1}{4}$
WYS 019-020		Beta Injection Well 2	48	77	15 NW $\frac{1}{4}$ SW $\frac{1}{4}$
WYS 019-021		Beta Injection Well 3	48	77	15 SE $\frac{1}{4}$ SW $\frac{1}{4}$
WYS 019-022		Beta Injection Well 4	48	77	15 SW $\frac{1}{4}$ SW $\frac{1}{4}$
WYS 019-023		Beta Injection Well 5	48	77	15 SE $\frac{1}{4}$ NE $\frac{1}{4}$
WYS 019-024		Beta Injection Well 6	48	77	15 SW $\frac{1}{4}$ NE $\frac{1}{4}$
WYS 019-025		Beta Injection Well 7	48	77	15 NW $\frac{1}{4}$ SE $\frac{1}{4}$
WYS 019-026		Beta Injection Well 8	48	77	15 SW $\frac{1}{4}$ SE $\frac{1}{4}$
WYS 019-027		Beta Injection Well 9	48	77	15 SE $\frac{1}{4}$ SE $\frac{1}{4}$
WYS 019-028		Beta Injection Well 10	48	77	10 NE $\frac{1}{4}$ NE $\frac{1}{4}$
WYS 019-029		Beta Injection Well 11	48	77	10 NW $\frac{1}{4}$ NE $\frac{1}{4}$
WYS 019-030		Beta Injection Well 12	48	77	10 SE $\frac{1}{4}$ NE $\frac{1}{4}$
WYS 019-031		Beta Injection Well 13	48	77	10 SW $\frac{1}{4}$ NE $\frac{1}{4}$
WYS 019-032		Beta Injection Well 14	48	77	10 NE $\frac{1}{4}$ NW $\frac{1}{4}$
WYS 019-033		Beta Injection Well 15	48	77	10 NW $\frac{1}{4}$ NW $\frac{1}{4}$
WYS 019-034		Beta Injection Well 16	48	77	10 SE $\frac{1}{4}$ NW $\frac{1}{4}$
WYS 019-035		Beta Injection Well 17	48	77	10 SW $\frac{1}{4}$ NW $\frac{1}{4}$
WYS 019-036		Beta Injection Well 18	48	77	10 NE $\frac{1}{4}$ SE $\frac{1}{4}$
WYS 019-037		Beta Injection Well 19	48	77	10 NW $\frac{1}{4}$ SE $\frac{1}{4}$
WYS 019-038		Beta Injection Well 20	48	77	10 SE $\frac{1}{4}$ SE $\frac{1}{4}$
WYS 019-039		Beta Injection Well 21	48	77	10 SW $\frac{1}{4}$ SE $\frac{1}{4}$
WYS 019-040		Beta Injection Well 22	48	77	10 NE $\frac{1}{4}$ SW $\frac{1}{4}$
WYS 019-041		Beta Injection Well 23	48	77	10 NW $\frac{1}{4}$ SW $\frac{1}{4}$
WYS 019-042		Beta Injection Well 24	48	77	10 SE $\frac{1}{4}$ SW $\frac{1}{4}$
WYS 019-043		Beta Injection Well 25	48	77	10 SW $\frac{1}{4}$ SW $\frac{1}{4}$
WYS 019-044		Beta Injection Well 26	48	77	15 NE $\frac{1}{4}$ NW $\frac{1}{4}$
WYS 019-045		Beta Injection Well 27	48	77	15 NW $\frac{1}{4}$ NW $\frac{1}{4}$
WYS 019-046		Beta Injection Well 28	48	77	15 SE $\frac{1}{4}$ NW $\frac{1}{4}$
WYS 019-047		Beta Injection Well 29	48	77	15 SW $\frac{1}{4}$ NW $\frac{1}{4}$

UIC FACILITY	COMPANY	PROJECT	T	R	SECTION
WYS 019-048	Michiwest Energy, Inc.	Beta Injection Well 30	48	77	15 NE¼NE¼
WYS 019-049		Beta Injection Well 31	48	77	15 NW¼NE¼
WYS 019-050		Alpha Injection Well 1	48	77	9 NE¼SE¼
WYS 019-051		Alpha Injection Well 2	48	77	9 NW¼SE¼
WYS 019-052		Alpha Injection Well 3	48	77	9 SE¼SE¼
WYS 019-053		Alpha Injection Well 4	48	77	9 SW¼SE¼
WYS 019-054		Alpha Injection Well 5	48	77	9 NE¼SW¼
WYS 019-055		Alpha Injection Well 6	48	77	9 NW¼SW¼
WYS 019-056		Alpha Injection Well 7	48	77	9 SE¼SW¼
WYS 019-057		Alpha Injection Well 8	48	77	9 SW¼SW¼
WYS 019-058		Alpha Injection Well 9	48	77	17 NE¼SE¼
WYS 019-059		Alpha Injection Well 10	48	77	17 NW¼SE¼
WYS 019-060		Alpha Injection Well 11	48	77	17 SE¼SE¼
WYS 019-061		Alpha Injection Well 12	48	77	17 SW¼SE¼
WYS 019-062		Alpha Injection Well 13	48	77	20 NE¼NE¼
WYS 019-063		Alpha Injection Well 14	48	77	20 NW¼NE¼
WYS 019-064		Alpha Injection Well 15	48	77	20 SE¼NE¼
WYS 019-065		Alpha Injection Well 16	48	77	21 NE¼NE¼
WYS 019-066		Alpha Injection Well 17	48	77	21 NW¼NE¼
WYS 019-067		Alpha Injection Well 18	48	77	21 SE¼NE¼
WYS 019-068		Alpha Injection Well 19	48	77	21 SW¼NE¼
WYS 019-069		Alpha Injection Well 20	48	77	21 NE¼NW¼
WYS 019-070		Alpha Injection Well 21	48	77	21 NW¼NW¼
WYS 019-071		Alpha Injection Well 22	48	77	21 SE¼NW¼
WYS 019-072		Alpha Injection Well 23	48	77	21 SW¼NW¼
WYS 019-073		Alpha Injection Well 24	48	77	22 NE¼NW¼
WYS 019-074		Alpha Injection Well 25	48	77	22 NW¼NW¼
WYS 019-075		Alpha Injection Well 26	48	77	22 SE¼NW¼
WYS 019-076		Alpha Injection Well 27	48	77	22 SW¼NW¼
WYS 019-077		Alpha Injection Well 28	48	77	22 NE¼SW¼
WYS 019-078		Alpha Injection Well 29	48	77	22 NW¼SW¼
WYS 019-079	Alpha Injection Well 30	48	77	22 SE¼SW¼	
WYS 019-080	Alpha Injection Well 31	48	77	22 SW¼SW¼	
WYS 019-081	Pilot Injection Well 1	48	77	16 NE¼NE¼	

UIC FACILITY	COMPANY	PROJECT	T	R	SECTION
WYS 019-082	Michiwest Energy, Inc.	Pilot Injection Well 2	48	77	16 NW ¼ NE ¼
WYS 019-083		Pilot Injection Well 3	48	77	16 SE ¼ NE ¼
WYS 019-084		Pilot Injection Well 4	48	77	16 SW ¼ NE ¼
WYS 019-085		Pilot Injection Well 5	48	77	16 NE ¼ NW ¼
WYS 019-086		Pilot Injection Well 6	48	77	16 NW ¼ NW ¼
WYS 019-087		Pilot Injection Well 7	48	77	16 SE ¼ NW ¼
WYS 019-088		Pilot Injection Well 8	48	77	16 SW ¼ NW ¼
WYS 019-089		Pilot Injection Well 9	48	77	16 NE ¼ SE ¼
WYS 019-090		Pilot Injection Well 10	48	77	16 NW ¼ SE ¼
WYS 019-091		Pilot Injection Well 11	48	77	16 SE ¼ SE ¼
WYS 019-092		Pilot Injection Well 12	48	77	16 SW ¼ SE ¼
WYS 019-093		Pilot Injection Well 13	48	77	16 NE ¼ SW ¼
WYS 019-094		Pilot Injection Well 14	48	77	16 NW ¼ SW ¼
WYS 019-095		Pilot Injection Well 15	48	77	16 SE ¼ SW ¼
WYS 019-096		Pilot Injection Well 16	48	77	16 SW ¼ SW ¼
WYS 033-078		Pennaco	7-33-54-77	54	77
WYS 033-037	Fidelity Exploration and Production Company	34D1-2384	58	84	23 SW ¼ SE ¼
WYS 033-062		12D1-2584	58	84	25 SW ¼ NW ¼
WYS 033-063		14D1-2584	58	84	25 SW ¼ SW ¼
WYS 033-064		34D1-2584	58	84	25 SW ¼ SE ¼
WYS 033-065		32D1-2684	58	84	26 SW ¼ NE ¼
WYS 033-066	SRW, Inc.	N D4-30R	54	82	30 SE ¼ SE ¼
WYS 033-067		N A1-31R	54	82	31 NW ¼ NW ¼
WYS 033-068		N C4-31R	54	82	31 NE ¼ SW ¼
WYS 033-069		N D1-32R	54	82	32 SW ¼ SW ¼
WYS 033-070		EL 26-6R	53	81	6 SE ¼ SW ¼
WYS 033-071		EL 42-1R	53	82	1 SE ¼ NE ¼
WYS 033-072		EL 32-1R	53	82	1 SW ¼ NE ¼
WYS 033-073		EL 21-12R	53	82	12 NE ¼ NW ¼
WYS 033-074		EL 32-31R	54	81	31 SW ¼ NE ¼
WYS 033-075		EL 24-35R	54	82	35 SE ¼ SW ¼
WYS 033-076		EL 32-35R	54	82	35 SW ¼ NE ¼
WYS 033-077	Paxton Resources, LLC	Brannaman A2B-32	55	83	32 NE ¼ NW ¼

C. Facilities Not Covered Under This Permit

1. The following facilities are not required to obtain coverage under this general permit:
  - a. Any existing 5C3 or 5C5 facility covered by an individual permit issued pursuant to Chapter 16, Water Quality Rules and Regulations.
  - b. 5C5 facilities which are not within this permit area.

D. Operator May Choose Coverage By An Individual Permit

Any operator covered by a general permit may at any time apply for and obtain an individual permit for the same facility. Once issued, an individual permit will eliminate coverage by the general permit for that facility.

E. Authorized Operations

1. This permit provides authorization to the facility operator to discharge coal bed methane produced water pursuant to the provisions contained herein. **This permit does not authorize the injection of drilling fluids, spent oilfield chemicals, other industrial wastes or hazardous wastes in any quantity whatsoever.**
2. There is no limit on the volume of water which may be injected into each well, provided that the pressure of injection is controlled and limited to the fracture pressure of the receiving formation as defined in Chapter 16. The operator is required to report volumes injected and the maximum daily injection volume when applying for coverage under this permit.
3. Within the area covered by this permit, all of the coal bed methane produced water meets only the groundwater standards for Class III groundwater of the state under Chapter 8, Wyoming Water Quality Rules and Regulations. For this reason, this permit covers only those injection zones which can be shown be Class III, IV(a), or IV(b) groundwater of the state. No injection into any aquifer is authorized by this permit if the baseline class of use of the receiving aquifer is Class I or II groundwater of the state.
4. Operators of injection wells within this area which could be covered by this permit, but which cannot meet the standards for this permit may or may not be allowable under an individual permit.

## Part II. COVERAGE APPLICATION CONTENT

The applicant shall complete the application form and sign the certification and agreement sections of the application contained in Appendix A and provide any additional supporting information required in this Part II for the department to make a review of the impact associated with the project. Other supporting information shall include:

- A. All property boundaries and adjacent property land use within one-half mile of the point of injection.
- B. All water wells and surface water bodies and springs within one-half mile of the facility and the use of these wells.
- C. A description of the method to be used to do Mechanical Integrity Testing as required by Chapter 16, Section 10(p)(vii).
- D. At least one analysis showing the overall quality of the coal bed methane produced water to be disposed of.
- E. Describe the peak maximum daily disposal capacity of the coal bed methane injection well. This is the maximum amount to be disposed of and does not require that the operator conduct tests to prove that the well will accept that volume of water.
- F. Available information on the lithology, geology, hydrogeology, and groundwater quality of the receiving units. This includes the formation name, member name, and the depth of the perforated interval(s).

- G. Analysis of the groundwater sufficient to classify, on a preliminary basis, the groundwater in the injection zone(s). If an analysis of the zone(s) is/are not available at the time when the application is made, then a plan should be submitted showing how these groundwater samples will be obtained during the completion of the well.
- H. Proof that notification of the intent to obtain coverage under this general permit has been sent to all surface owners, mineral owners or water rights owners, oil and gas owners and the owners of coal leases within one-half mile of the proposed point of injection. Operators who have sent this notification as part of the approval process for aquifer recharge wells have already met this requirement, all other operators must submit this information as part of the application package.
- I. Construction plans for the well itself and all surface facilities to be constructed as part of the coal bed methane injection facility. For the well, this requirement may be met by supplying a detailed cross sectional drawing of the well *and/or* a detailed written procedure for the installation of the well.

The above information shall be shown on maps and in written form. Information previously submitted to the department may be referenced.

Applicants for coverage under this general permit shall submit three (3) copies of the application package. One of these copies will be supplied to the Wyoming Oil and Gas Conservation Commission for their files.

### **Part III. STANDARD PERMIT CONDITIONS**

#### **A. Property Rights**

This permit does not convey any property rights of any sort, or any exclusive privilege.

#### **B. Right to Access**

The permittee shall allow the administrator, or an authorized representative of the administrator, upon the presentation of credentials, during normal working hours, to enter the premises where a regulated facility is located, or where records are kept under the conditions of this permit, and inspect the discharge and related facilities, review and copy reports and records required by the permit, collect fluid samples for analysis, measure and record water levels, and perform any other function authorized by law or regulation.

#### **C. Signatory Requirements**

1. All applications, reports, and other information submitted to the administrator shall be signed by a person who meets the following requirements:
  - a. For a corporation -- by a principal executive officer of at least the level of vice-president;
  - b. For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively;
  - c. By a duly authorized representative for any of the above. A person is a duly authorized representative only if:
    2. The authorization is made in writing by one of the described principals;
    3. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity and the written authorization is submitted to the administrator.
    4. If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the administrator prior to or together with any reports or information, to be signed by an authorized representative.

#### **D. Certification**

Any person signing documents required by this permit shall make the following certification:

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

E. Advance Notice of Changes or Modifications

1. The permittee shall give advance notice to the administrator as soon as possible of any planned physical alteration or additions, other than authorized operation and maintenance, to the permitted facility and receive authorization prior to implementing the proposed alteration or addition;
2. Any modification which may result in a violation of a permit condition shall be reported to the administrator, and any modification that will result in a violation of a permit condition shall be reported to the administrator through the submission of a new or amended permit application;
3. Any class 5C5 facility which becomes temporarily abandoned because the building in which it is located or attached to becomes vacant shall be abandoned permanently prior to occupancy of the building by a new tenant.

F. Noncompliance

1. Reports of compliance or non-compliance with, or any progress reports on interim and final requirements contained in any compliance schedule, if one is required by the administrator, shall be submitted no later than 30 days following each schedule date;
2. Confirmed noncompliance resulting in the migration of injected fluid into any zone outside of the permitted receiver must be orally reported to the administrator within 24 hours, and a written submission shall be provided within five (5) days of the time the permittee becomes aware of the excursion. The written submission shall contain:
  - a. A description of the noncompliance and its cause;
  - b. The period of noncompliance, including exact dates and times, and, if the noncompliance has not been controlled, the anticipated time it is expected to continue; and
  - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
3. The permittee shall report all instances of noncompliance not already required to be reported under items (P) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in item (P) of this section.
4. The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

G. Relevant Facts Omitted in Application

In the situation where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the administrator, the permittee shall promptly submit such facts or information. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in any report to the Administrator, he or she shall promptly submit such facts or information.

H. Construction and Performance Requirements

1. All injection wells covered by this permit shall meet construction requirements outlined in Section 10 of Chapter 16 or the permittee shall furnish certification that the facility has been designed and constructed to meet the requirements of this section. All injection wells covered by this permit shall be constructed to insure that the water injected reaches the intended receiver and only the intended

receiver. The intended receiver shall be identified by geologic formation and/or member name as well as the depth of that receiver below ground surface.

2. The permittee shall properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding and operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.
3. All 5C5 facilities covered by this permit shall include a pre-treatment plan to insure that biological, hazardous, toxic or potentially toxic materials or substances are not discharged to the groundwater at concentrations higher than the class of use standards found in Chapter 8, Water Quality Rules and Regulations.
4. All 5C5 facilities covered by this permit shall also submit a spill prevention plan to the department which will prevent biological, hazardous, toxic or potentially toxic materials or substances from entering the waste stream prior to disposal in the subsurface.
5. Each operator shall provide background information showing that the class of use under Chapter 8 for each injection zone will not be violated by the injection of coal bed methane produced water;
6. A valid pressure falloff curve be recorded for each well within one year of the start of injection into that well; and
7. The pressure of injection be continuously recorded and that the pressure of injection be limited to no more than the fracture pressure of the receiving formation. This requirement can be met by assuming that the fracture gradient of the receiver is .70 psi/foot of depth and using the depth of the topmost perforation in making the calculation.
8. All injection wells covered by this general permit must be designed to provide for disinfection of the water injected if analysis shows that coliform bacteria, sulfate reducing bacteria or iron fixing bacteria are present in the water as pumped from the coal seam. Treatment methods must be methods that would be appropriate for treating water in a public water supply system.

#### I. Abandonment or Conversion to Water Wells

1. The permittee shall notify the administrator at least seven (7) days before conversion or abandonment of the facility;
2. An abandonment report, detailing the compliance with abandonment procedures outlined the original application for coverage under this general permit, or describing any deviations from the original plan, shall be submitted as soon as practicable after abandonment. The abandonment shall include reclamation of the well site.; and
3. In no case shall the abandonment procedure be less stringent than that required at the time of abandonment by the Wyoming Oil and Gas Conservation Commission for the abandonment of producing oil wells at the time of abandonment.
4. Injection wells covered by this permit shall be permanently abandoned or converted to another use within three (3) years after the date when coal bed methane water was last injected unless those wells are converted to water wells.
5. Wells which are to be converted to another use shall be covered by an approved Wyoming State Engineer's permit for the well showing that it has been converted to a water well. A copy of this permit shall be submitted to the department as proof that the well has been converted.

J. Change of Ownership

1. When the operator with responsibility for a permitted project is to change, the new operator shall submit a request to transfer the permit on forms provided by the department at least 48 hours prior to the change, and the preceding operator must sign the request acknowledging that termination of rights under the permit will cease when the department accepts the permit transfer. The new operator or owner shall sign the transfer form agreeing to be bound by all of the terms and conditions of the permit.
2. Coverage under this general permit is not transferable to any person except after notice to the Administrator. Any transfer of a permit shall first be approved by the administrator, and no transfer will be approved if the facility is not in compliance with the existing permit unless the proposed permittee agrees to bring the facility into compliance. The Administrator may require the operator to apply for and obtain an individual permit pursuant to Chapter 16.

K. Duty to Comply

The permittee shall comply with all conditions of the permit. Any permit noncompliance constitutes a violation of these regulations and may be resolved by enforcement action, permit termination, revocation, or modification.

L. Toxic or Hazardous Substances

The permittee shall not discharge any biological, hazardous, toxic or potentially toxic materials or substances in concentrations above allowable standards contained in Chapter 8, Water Quality Rules and Regulations into any coal bed methane injection well covered by this general permit.

M. Continuation of the Expired General Permit

An expired general permit continues in force and effect until a new general permit is issued or this permit is terminated.

N. Need to Halt or Reduce Activity Not a Defense; Stay of Permit Conditions

1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
2. The filing of a request by the permittee, or at the instigation of the administrator, for a permit modification, revocation, termination, or notification of planned changes or anticipated non-compliance, shall not stay any permit condition.

O. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. Should groundwater become polluted or affect groundwater uses, the permittee shall take corrective actions to restore polluted groundwater to pre-contamination quality of use.

P. Duty to Provide Information

1. The permittee shall furnish to the Administrator within a reasonable time, any information which the Administrator may request to determine compliance with this permit. The permittee shall also furnish to the Administrator upon request, copies of records required to be kept by this permit.
2. The permittee shall furnish to the administrator, within a specified time, any information which the administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. The permittee shall also furnish to the administrator, upon request, copies of records required to be kept by the permit.

3. The permittee shall furnish any information necessary to make an assessment of the effect of this discharge on the environment as required in this permit.

Q. Penalties for Violations of Permit Conditions

Article 9 of the Wyoming Environmental Quality Act provides significant penalties for any person who violates a permit condition. Any person who violates any condition of this permit is subject to a civil penalty not to exceed \$10,000 per day of such violation, as well as any other appropriate sanction provided by the Act. Knowingly or willfully violating the permit may result in criminal penalties of up to \$25,000 per day of violation and/or imprisonment for up to one year. Criminal penalties for subsequent knowing or willful violations of the permit may be up to \$50,000 per day of violation and/or imprisonment for up to two years. Falsification of any report, data, analysis, reading, recording, or of any information submitted under this permit is a willful and knowing violation of this permit.

R. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

S. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation.

T. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee when necessary to achieve compliance with the conditions of the permit.

U. Reopener Clause

For good cause the Administrator may, at any time, require a permittee covered under this permit to obtain an individual permit, coverage under an alternative general permit, or this permit may be modified to include different limitations and/or requirements. Permit modification or revocation will be conducted according to Wyoming Water Quality Rules and Regulations, Chapter 16. The administrator shall inform the operator in writing that coverage under this permit will cease six (6) months from the date of receipt of the notice. The notice will also be provided that operation of the facility after that date without an individual permit Chapter 16, Water Quality Rules and Regulations is prohibited.

#### **PART IV. MONITORING PROGRAM; RECORDS AND REPORTS**

A. General Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall retain records of all monitoring information including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of the reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample measurement, report, or application. This period may be extended by request of the Administrator at any time.
3. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;

- b. The initials or name(s) of the individual(s) who performed the sampling or measurements;
  - c. The date(s) analyses were performed;
  - d. The time(s) analyses were initiated;
  - e. The initials or name(s) of the individual(s) who performed the analyses;
  - f. References and written procedures for the analytical techniques or methods used; and
  - g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.
4. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
  5. The permittee shall retain all records concerning the nature and composition of injected fluids until 5 years after completion of any specified plugging and abandonment procedures. The administrator may require the owner/operator to deliver the records to the administrator at the conclusion of the retention period.
  6. The permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the operator becomes aware of the circumstances. The report should include:
    - a. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable groundwater of the state.
    - b. Any noncompliance with a permit condition or malfunction of the discharge (injection) system which may cause fluid migration into or between usable ground waters of the state.
    - c. A written submission shall be provided within 5 days of the time the operator becomes aware of the circumstances. This written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
  7. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in Part IV(A)(3) above.
  8. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 30 days following each schedule date.

**B. Requirements for Monitoring the Discharge**

1. All operators covered by this permit must provide for metering of water injected into each well. On a quarterly basis, the volume injected into each well shall be reported for each month in the quarter.
2. The permittee shall monitor the quality of the injected fluid on an approved schedule. Samples shall be taken from the flow line to each injection well at a point where all pretreatment has taken place. The following parameters shall be analyzed by the listed methods and reported quarterly:

SAMPLING SCHEDULE	ANALYTICAL METHOD	PARAMETER ANALYZED	PERMIT LIMIT (UCL) *
Quarterly	EPA Method 160.1	Total Dissolved Solids	5000
	EPA 200 Series Methods	Total Arsenic	.2
	Calculated from other analysis	Sodium Adsorption Ratio	No Limit
	Standard Methods	Iron Fixing Bacteria	Should be Free of Bacteria
		Sulfate Reducing Bacteria	
		Coliform Bacteria	
Standard Method 9040	pH	must be between 6.5 to 8.5	

\*All chemical concentrations in this permit are expressed in mg/l unless otherwise noted. pH is always expressed in standard units.

The above Upper Control Limit (UCL) is not to be exceeded in any sample. Exceedance of this value is a violation of this permit and shall require corrective action.

3. All operators of injection wells covered by this permit shall provide for pressure testing of the casing before injection and at least once every five years thereafter. The casing shall be pressure tested up to an indicated surface pressure of 700 psi and held for 15 minutes. A passing result is indicated if the casing still has 690 psi at the end of the 15 minute shut-in time. Records showing that these tests have been done shall be reported to the Water Quality Division with the next quarterly report.

#### Part V. DEFINITIONS

- A. **“Administrator”** means the Administrator of the Water Quality Division, Wyoming Department of Environmental Quality or his or her authorized agent.
- B. **“Coal bed methane produced water” or “CBM water”** means water produced from a coal seam specifically for the purpose of causing that seam to give up methane. It includes all water produced for this purpose regardless of whether the coal seam has begun to produce methane or not.
- C. **“Injection well”** means a well, completed in such a way that only the receiving units are open to the well bore and all other units are isolated, which is used to inject fluids into the subsurface.
- D. **“Operator”** means the permittee or the party, person, corporation or other entity that has operational control over a class V injection facility. The operator is responsible for ensuring compliance with all conditions of the permit.
- E. **“Source Water Protection Area”** means the area delineated for the protection of ground and surface water sources for a public water supply under a department approved plan developed pursuant to Section 1453 of the Safe Drinking Water Act.
- F. **“Wyoming Water Quality Standards”** refers to Wyoming Water Quality Rules and Regulations, Chapters 1 (surface water standards) and 8 (ground water standards).

/pjb  
11945-doc

APPENDIX A: APPLICATION FORM FOR COVERAGE UNDER THIS PERMIT

DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
WATER QUALITY RULES AND REGULATIONS, CHAPTER 16 (2001)  
Application for Coverage Under General Permit 5C5-3  
Coal Bed Methane Disposal

Registration No.:
Date recd:

- Name of the Injection Well: \_\_\_\_\_  
Location: T\_\_N, R\_\_W, Section \_\_¼, \_\_¼ which is located in north half of Johnson County and all of Sheridan County, Wyoming. This facility is located \_\_\_\_\_ feet FNL and \_\_\_\_\_ FEL of Section \_\_\_\_\_ or (bearing and distance) from the \_\_\_\_\_ corner of Section \_\_\_\_\_.  
or Latitude: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " North and  
Longitude: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " West preferably within a (ten) 10 meter accuracy.  
Mailing Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Street address where records will be kept: \_\_\_\_\_  
\_\_\_\_\_  
Telephone Number: ( ) \_\_\_\_\_ - \_\_\_\_\_  
Name and title of responsible individual, address and telephone number if different from above: \_\_\_\_\_  
Telephone Number: ( ) \_\_\_\_\_ - \_\_\_\_\_
- Name address and telephone number of the operator on site: \_\_\_\_\_  
\_\_\_\_\_  
Telephone Number: ( ) \_\_\_\_\_ - \_\_\_\_\_
- A brief description of the nature of the business and the activities to be conducted that require the applicant to obtain coverage under this chapter: Operator of a coal bed methane disposal well injecting into the Wasatch, Fort Union, Lance and/or Fox Hills Formation(s)
- Depth of injection zone (perforated interval(s)) below ground surface:  
from \_\_\_\_\_ feet to \_\_\_\_\_ feet. ( \_\_\_\_\_ Formation)  
from \_\_\_\_\_ feet to \_\_\_\_\_ feet. ( \_\_\_\_\_ Formation)  
from \_\_\_\_\_ feet to \_\_\_\_\_ feet. ( \_\_\_\_\_ Formation)  
from \_\_\_\_\_ feet to \_\_\_\_\_ feet. ( \_\_\_\_\_ Formation)
- The disposal capacity of the facility in gallons per day: \_\_\_\_\_
- Owner of the surface rights where facility is located: \_\_\_\_\_  
\_\_\_\_\_  
Telephone Number: ( ) \_\_\_\_\_ - \_\_\_\_\_

7. Copies of access agreement between above owners and the operator if the operator is not the owner shall be attached. This requirement may be met by having the owner of the property write a letter stating that he consents to the construction covered by this application.
8. Map showing the facility and all property lines, water wells, springs, lakes, ponds, streams, rivers, and all points of injection within 1/4 mile of the facility.
9. Ownership Status:  
 Federal     State     Private     Public or other entity
10. Operational Status of Facility:  
 Operating     temporarily abandoned     permanently abandoned

Note: Permanently abandoned injection facilities are not required to be covered by this general permit. Operators of such facilities which were abandoned prior to July 16, 2001 may file this form to provide a record that the system has been abandoned. Operators of such facilities which were abandoned after July 16, 2001 shall file this form to show that the facility has been abandoned.

11. Additional information required by Part II of this general permit must be attached. This includes a description of the pretreatment plan to be used to insure that toxic materials (substances) are not discharged to the groundwater at concentrations higher than the class of use standards.
12. CERTIFICATION OF THE OPERATOR OF THE FACILITY:

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

\_\_\_\_\_  
 Printed name of person signing

\_\_\_\_\_  
 Title

\_\_\_\_\_  
 Signature of Applicant

\_\_\_\_\_  
 Date Signed

/pjb  
 11947-doc

**APPENDIX B: QUARTERLY REPORT FORM**

**STATE OF WYOMING  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
UNDERGROUND INJECTION CONTROL PROGRAM  
REPORTING FORM FOR CBM INJECTION WELLS**

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

This form shall accompany the submission of any report, documentation or data required by the UIC permit on a class V CBM injection well.

Company Name:			
Phone Number			
Company Address:			
Facility Name:			
County:			
Permit number:	5C5-3		
Location:	T N,	R W,	Sec.

Injection Volume: (All volumes to be reported in gallons per day. Report volumes under whichever recharge well was in use for each day of the month.)

Month	Volume (in standard 42 gallon barrels)
1	
2	
3	
<b>TOTAL THIS QUARTER:</b>	

FLOW LINE SAMPLE: (This is the quality of water injected after all treatment has occurred. Total Dissolved Solids to be reported in mg/l, SAR is unitless, bacteria are reported in colonies per 100 ml, and pH is reported in standard units)

Date Sampled: \_\_\_\_ / \_\_\_\_ / \_\_\_\_      Laboratory: \_\_\_\_\_      Lab #: \_\_\_\_\_

Parameter	Discharge to the Well	Permit Limit (UCL)
Total Dissolved Solids		5,000
Sodium Adsorption Ratio		No Limit
Iron Fixing Bacteria		Should be Free of Bacteria
Sulfate Reducing Bacteria		
Coliform Bacteria		
pH in standard units		6.5-8.5

PERMIT EXCEEDANCES: All values that exceed the permit limitations on the above tables are circled in red.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed name of person signing

Title

Signature

Date signed

Submit to: UIC Program Supervisor  
Water Quality Division  
Herschler Building, 122 West 25th St.  
Cheyenne, Wyoming 82002

pjb  
11948-doc

