



# Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 27, 2011

Daniel R. Wenger  
P.O. Box 221  
Laramie, WY 82073

RE: Daniel Wenger Residential Septic System,  
Location: NW¼ NW¼ Section 26, T21N, R87W,

Application No. 11-201  
Carbon County

Dear Mr. Wenger:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of a 1000 gallon, two compartment, concrete septic tank and about 200 feet of chamber type bed leachfield divided into four equal length lines of chambers for a 3 bedroom mobile home in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the small wastewater system in accordance with Chapter 25 of the Water Quality Division Rules and Regulations, the general permit, and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit.

The approval granted under this Notification Of Coverage and the General Permit shall expire on June 27, 2013. Please reference Application Number 11-201 in any future correspondence.

If you have any questions, please contact me at either [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov) or by phone at (307) 777-6183.

Sincerely,

Ronald L. Ewald  
Assistant Southeast District Engineer  
Southeast District, Water & Wastewater Section  
Water Quality Division

RLE/rm/11-0616

Enclosures: GENERAL PERMIT - Small Wastewater Facility  
Certificate of Completion

cc: IPS, Cheyenne  
Kristy Rowan, Carbon County Planning Office, Carbon Building, 215 West Buffalo Street, Suite 336, Rawlins, Wyoming 82301  
Matt Williams, Project Manager- WLC, Inc., 200 Pronghorn Street, Casper, Wyoming 82601





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 3, 2011

University of Wyoming  
Roger Baalman, Director Facilities Planning  
1000 E. University Ave. Dept 3413  
Laramie, WY 82071

RE: University of Wyoming Student Housing Project  
Application No. 11-202, Albany County

Dear Mr. Baalman:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as installation of approximately 1400 feet of 8 inch PVC C-900 water main, installation of approximately 1760 feet of 8 inch SDR 35 PVC sanitary sewer main, Section 34, T16N R 73W; Albany County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the water distribution system in accordance with Chapter 12, Section 14 of the Water Quality Division Rules and Regulations, the sewage collection system in accordance with Chapter 11, Section 9 of the Water Quality Division Rules and Regulations, and both systems in accordance with the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by June 3, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. 11-202 in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

Sincerely,

Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/rm/11-0541

Enclosure: Certificate of Completion

cc: IPS, Cheyenne  
Mark Oberschmidt, Coffey Eng. & Surveying, 903 S. 3<sup>rd</sup> Street, Laramie, WY 82070  
Richard Elliot, City of Laramie, P.O. Box C, Laramie, WY 82073



WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
PERMIT TO CONSTRUCT

PERMIT NO. 11-203

REFERENCE PERMIT NO. 08-768, 08-254, 81-431

Town of Hanna Water Treatment Plant Improvements  
PWS WY5600025

This permit hereby authorizes the applicant:

Town of Hanna  
P.O. Box 99  
301 South Adams  
Hanna, WY 82327

to construct, install or modify by a modification of clearwell piping and change filter backwash procedures according to the procedures and conditions of the application number 11-203. The facility is located in NE ¼ Section 36 T22N R82W; Carbon County, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed June 14, 2013.

The issuance of this permit confirms that the Wyoming Department of Environmental Quality (DEQ) has evaluated the application submitted by the permittee and determined that it meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the engineer's design are the responsibility of the permittee, owner, and operator.

Granting this permit does not imply that DEQ guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements. Compliance with discharge standards remains the responsibility of the permittee.

Nothing in this permit constitutes an endorsement by DEQ of the construction or the design of the facility described herein. This permit verifies only that the submitted application meets the design and construction standards imposed by Wyoming statutes, rules and regulations. The DEQ assumes no liability for, and does not in any way guarantee or warrant the performance or operation of the permitted facility. The permittee, owner and operator are solely responsible for any liability arising from the construction or operation of the permitted facility. By issuing this permit, the State of Wyoming does not waive its sovereign immunity.

The permittee shall allow authorized representatives from DEQ to enter and inspect any property, premise or place on or at which the facility is located or is being constructed or installed for the purpose of investigating actual or potential sources of water pollution, and for determining compliance or non-compliance with any rules, regulations, standards, permits or orders.

Nothing in this permit shall be construed to preclude the institution of any legal action or other proceeding to enforce any applicable provision of law or rules and regulations. It is the duty of the permittee, owner and operator to comply with all applicable federal, state and local laws or regulations in the exercise of its activities authorized by this permit.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

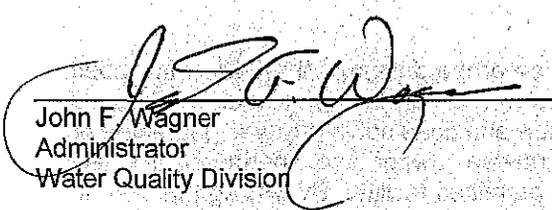
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not

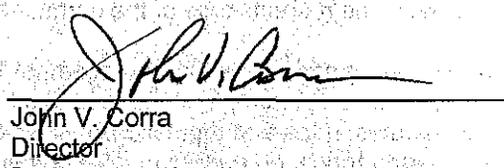
relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions:

- 1 The applicant will provide immediate oral or written notice to the Southeast District, Water Quality Division, Herschler Building 4 West, Cheyenne, WY, 82002, Phone 307-777-7075, FAX 307-777-7610, in accordance with the provisions of Section 11, Chapter 3, Wyoming Water Quality Rules and Regulations of any changes or modifications which are not consistent with the terms and conditions of this permit.
  
- 2 Within sixty days of completion of construction of the authorized facility, the applicant will submit to the Southeast District, Water Quality Division, Herschler Building 4 West, Cheyenne, WY, 82002 a certification of completion signed by the Engineer of Record or the owner. A form titled "Certificate of Completion" has been provided.
  - a. Date that construction of the facility was completed; and
  - b. Date that the facility was placed in operation; and
  - c. Certification the facility was constructed in accordance with the terms and conditions of the permit; or
  - d. Certification the facility was completed with changes or modifications. Submittal of as-constructed plans and specifications for the system as it was constructed, certified by an engineer if appropriate is required. All modifications or deviations from the authorized plans must be highlighted.
  
- 3 The review and approval of this permit is based upon the items identified in the attached "Statement of Basis".

AUTHORIZED BY:

  
John F. Wagner  
Administrator  
Water Quality Division

  
John V. Corra  
Director  
Department of Environmental Quality

Date of Issuance 6/16/4

RRC/rm/11-0565

## STATEMENT OF BASIS

1. Permit Number: 11-203
2. This application was reviewed for compliance with the applicable regulations ;
3. Chapters 3 and 12
4. Does the permit comply with all applicable regulations identified above?  
No
5. The permit approval is based upon a deviation from applicable regulations in accordance with Section of Chapter 12.
  - a. Identify specific sections of the regulations for which a deviation is approved and briefly summarize the regulation.  
Chapter 12, Section 10(i)(ii)(B)(IV) The backwash system shall be sized to provide a minimum backwash flow rate of 20 gpm/ft . Washwater storage shall be designed to provide two 20 minute washes in rapid succession. Where multiple units are not required and only one filter compartment is present, backwash storage capabilities may be reduced to provide one 20 minute backwash.
  - b. Briefly state the basis for the deviation. This system is equipped with air scour and has a backwash rate of 16 gpm/ft for 10minutes. In addition, they demonstrated in the sequences, durations and backwash rates to use less water to clean the media. Because the backwash process demonstrated that the media could be cleaned more effectively in less time and with less water by using air scour and water washing in the backwash process a variance was granted.
6. A review to determine groundwater impacts in accordance with Section 17, Chapter 3 was not required.  
Public water supplies are exempted from review by Chapter 3, Section 17.
7. Documentation of Statement of Basis: The archive file for this permit includes adequate documentation of all sections of this Statement of Basis.

## CERTIFICATION

The issuance of this permit is based upon a review of the application package submitted in accordance with the requirements of Chapter 3, Section 6, Wyoming Water Quality Rules and Regulations. This review was performed by Richard Cripe, Southeast District Engineer, Water and Wastewater Section, Wyoming Department of Environmental Quality /Water Quality Division, and completed on June 15, 2011. Permit issuance is recommended based upon statements, representations, and procedures presented in the permit application and supporting documents, permit conditions, and the items identified in this "Statement of Basis."

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
PERMIT TO CONSTRUCT

PERMIT NO. 11-204

REFERENCE PERMIT NO. 95-286

HAYNES LIFT STATION RENOVATION

This permit hereby authorizes the applicant:

TOWN OF GUERNSEY  
P.O. Box 667  
GUERNSEY, WY 82214

to construct, install or modify an emergency back-up pumping system, a new 25 kw natural gas emergency powered generator, connection piping to the existing 6" force main according to the procedures and conditions of the application number 11-204. The facility is located in Section 35 T27N R66W; Platte County, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed May 26, 2013.

The issuance of this permit confirms that the Wyoming Department of Environmental Quality (DEQ) has evaluated the application submitted by the permittee and determined that it meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the engineer's design are the responsibility of the permittee, owner, and operator.

Granting this permit does not imply that DEQ guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements. Compliance with discharge standards remains the responsibility of the permittee.

Nothing in this permit constitutes an endorsement by DEQ of the construction or the design of the facility described herein. This permit verifies only that the submitted application meets the design and construction standards imposed by Wyoming statutes, rules and regulations. The DEQ assumes no liability for, and does not in any way guarantee or warrant the performance or operation of the permitted facility. The permittee, owner and operator are solely responsible for any liability arising from the construction or operation of the permitted facility. By issuing this permit, the State of Wyoming does not waive its sovereign immunity.

The permittee shall allow authorized representatives from DEQ to enter and inspect any property, premise or place on or at which the facility is located or is being constructed or installed for the purpose of investigating actual or potential sources of water pollution, and for determining compliance or non-compliance with any rules, regulations, standards, permits or orders.

Nothing in this permit shall be construed to preclude the institution of any legal action or other proceeding to enforce any applicable provision of law or rules and regulations. It is the duty of the permittee, owner and operator to comply with all applicable federal, state and local laws or regulations in the exercise of its activities authorized by this permit.

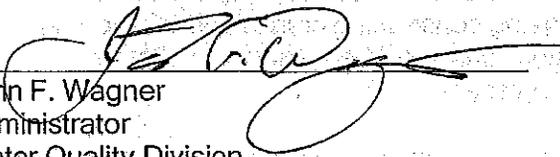
The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions:

- 1 The applicant will provide immediate oral or written notice to the Southeast District, Water Quality Division, Herschler Building 4 West, Cheyenne, WY, 82002, Phone 307-777-7075, FAX 307-777-7610, in accordance with the provisions of Section 11, Chapter 3, Wyoming Water Quality Rules and Regulations of any changes or modifications which are not consistent with the terms and conditions of this permit.
- 2 Within sixty days of completion of construction of the authorized facility, the applicant will submit to the Southeast District, Water Quality Division, Herschler Building 4 West, Cheyenne, WY, 82002 a certification of completion signed by the Engineer of Record or the owner. A form titled "Certificate of Completion" has been provided.
  - a. Date that construction of the facility was completed; and
  - b. Date that the facility was placed in operation; and
  - c. Certification the facility was constructed in accordance with the terms and conditions of the permit; or
  - d. Certification the facility was completed with changes or modifications. Submittal of as-constructed plans and specifications for the system as it was constructed, certified by an engineer if appropriate is required. All modifications or deviations from the authorized plans must be highlighted.
- 3 A draft operation and maintenance manual for the lift station must be submitted at 50 percent completion of construction to the Southeast District Engineer of the Water Quality Division for approval. Approval of the final operation and maintenance manual is required prior to completion of construction.
- 4 The review and approval of this permit is based upon the items identified in the attached "Statement of Basis".

AUTHORIZED BY:

  
John F. Wagner  
Administrator  
Water Quality Division

  
John V. Corra  
Director  
Department of Environmental Quality

Date of Issuance 5/27/11

RRC/rm/11-0511

cc: Timothy Eisenhauer, Baker & Assoc., 1401 E. M Street, Torrington , WY, 82240

## STATEMENT OF BASIS

1. Permit Number: **11-204**
2. This application was reviewed for compliance with the applicable regulations ;  
Chapters 3, 11
3. Does the permit comply with all applicable regulations identified above?  
Yes
4. A review to determine groundwater impacts in accordance with Section 17, Chapter 3 was not required.  
Sewerage systems are exempted from review by Chapter 3, Section 17.

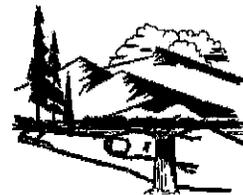
## CERTIFICATION

The issuance of this permit is based upon a review of the application package submitted in accordance with the requirements of Chapter 3, Section 6, Wyoming Water Quality Rules and Regulations. This review was performed by Richard Cripe, Southeast District Engineer, Water and Wastewater Section, Wyoming Department of Environmental Quality /Water Quality Division, and completed on May 26, 2011. Permit issuance is recommended based upon statements, representations, and procedures presented in the permit application and supporting documents, permit conditions, and the items identified in this "Statement of Basis."



# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 3, 2011

City of Laramie  
Cal Van Zee, Utility Manager  
P.O. Box C  
Laramie, WY 82070

RE: Field Maintenance Shop #2, Laramie WY  
Application No. 11- 205, Albany County

Dear Mr. Cal Van Zee:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as installation approximately 1210 ft of 12 inch PVC C-900 water line, installation approximately 1520 ft of 8 inch PVC C-900 water main, installation of three new fire hydrants, and installation of approximately 400 feet of 6 inch PVC SDR35 sanitary sewer main NE ¼ Section 35, T16N R 74W; Albany County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the water distribution system in accordance with Chapter 12, Section 14 of the Water Quality Division Rules and Regulations, the sewage collection system in accordance with Chapter 11, Section 9 of the Water Quality Division Rules and Regulations, and both systems in accordance with the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by June 3, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. 11- 205 in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

Sincerely,

Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/rm/11-0542

Enclosure: Certificate of Completion

cc: IPS, Cheyenne  
R. Scott Cowley, AVI, 2035 Westland Road, Cheyenne, WY 82001





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 7, 2011

Mark O. and Valerie A. Condict  
P.O. Box 767  
Saratoga, WY 82331

RE: Condict Cabin Residential Septic System,  
Location: SW¼ Section 14, T16N, R83W,

Application No. **11-206**  
Carbon County

Dear Mr. & Mrs. Condict:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of a 1000 gallon, two compartment polyethylene septic tank and about 250 feet of chamber type leachfield divided into two equal length trenches of about 125 feet each for a **3 bedroom cabin** in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the small wastewater system in accordance with Chapter 25 of the Water Quality Division Rules and Regulations, the general permit, the conditions listed below, and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit. Additionally, the following project specific conditions also apply:

1. Septic Tank Clean-Out Riser Requirement - Either a 6 inch diameter clean-out riser or the manway from **each compartment of the septic tank** must be extended to the ground surface.
2. Polyethylene Septic Tank Installation Requirements - To ensure structural integrity, the **manufacturer's instructions** regarding bedding the tank and filling the tank with water during burial **must be followed during installation**. Additionally, immediately after clean-outs, the tank must be refilled with water according to the manufacturer's instructions to maintain structural integrity.

Herschler Building · 122 West 25th Street · Cheyenne, WY 82002 · <http://deq.state.wy.us>

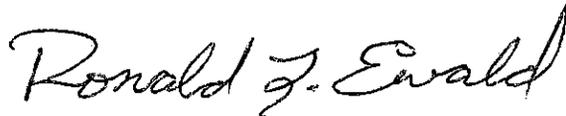
ADMIN/OUTREACH (307) 777-7758 FAX 777-7682	ABANDONED MINES (307) 777-6145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7369 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 777-5864	SOLID & HAZ. WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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The approval granted under this Notification Of Coverage and the General Permit shall expire on July 7, 2013. Please reference Application Number 11-206 in any future correspondence.

If you have any questions, please contact me at [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov) or (307) 777-6183.

Sincerely,



Ronald L. Ewald  
Assistant Southeast District Engineer  
Southeast District, Water & Wastewater Section  
Water Quality Division

RLE/rm/11-0632

Enclosures: GENERAL PERMIT - Small Wastewater Facility  
Certificate of Completion

cc: IPS, Cheyenne  
Kristy Rowan, Carbon County Planning Office, Carbon Building, 215 West  
Buffalo Street, Suite 336, Rawlins, Wyoming 82301

STATE OF WYOMING  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
UNDERGROUND INJECTION CONTROL PERMIT ISSUED UNDER  
WYOMING WATER QUALITY RULES AND REGULATIONS  
CHAPTER 16

CLASS V INJECTION WELL (AREA PERMIT)

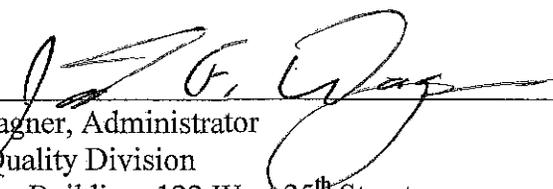
(X) New  
( ) Modified

Permit Number **11-207**  
UIC Facility Number WYS-005-00586  
State Subclass 5F2

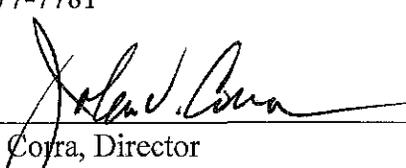
In compliance with the Wyoming Environmental Quality act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through 301 (a)(iv), Laws 1973, Ch. 250, Section 1) and Wyoming Water Quality Rules and Regulations, Chapter 16.

Applicant: Patriot Energy Resources, LLC  
Attn: Brian J. Cree  
P.O. Box 7070  
Gillette, WY 82717  
(307) 686-9488

Patriot Energy Resources, LLC, hereafter referred to as the Permittee, is authorized to operate 300 (three hundred) injection wells located in Townships 52 and 53, Ranges 72, 73 and 74 of the 6<sup>th</sup> Principal Meridian, Campbell County (referred to as the "Rough Draw Area") for the restoration or enhancement of microbial conversion of hydrocarbon substrates to methane gas from coal according to the procedures and conditions of application 11-207, including the requirements and other conditions of this permit. This permit shall become effective on the date of issuance and is valid for ten (10) years.

  
\_\_\_\_\_  
John Wagner, Administrator  
Water Quality Division  
Herschler Building, 122 West 25<sup>th</sup> Street  
Cheyenne, WY 82002  
(307)-777-7781

1/6/12  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
John V. Coyra, Director  
Department of Environmental Quality  
Herschler Building, 122 West 25<sup>th</sup> Street  
Cheyenne, WY 82002

1/6/12  
\_\_\_\_\_  
Date

KS/rm/12-0015

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**A. Discharge Zone**

The injection zones include the Anderson, Canyon, Lower Canyon and Wall coal seams. Project wells are identified in **Tables 1A and 1B** as follows:

**Table 1A (Perforated Zones - Phase I)**

Well Name	Perforated Zones (Feet)	Porosity (%)	Coal Thickness (Feet)	Maximum Injection Rate (bbls/day) <sup>1,2</sup>	Maximum Surface Injection Pressure (psig) <sup>1</sup>	Coal Seam
Landeck 24B2-323	754-778	2%	19	2000	15 psig	Wall
Landeck 32C-323*	411-489	2%	71	2000	15 psig	Canyon
Landeck 41C-323	425-498	2%	71	2000	15 psig	Canyon
Bowen 12C-3233	480-496	2%	19	2000	15 psig	Canyon
Bowen 12WA-3233	965-988	2%	26	2000	15 psig	Wall
Bowen 21C-623	558-582	2%	26	2000	15 psig	Canyon
Bowen 21LC-623*	756-770	2%	31	2000	15 psig	Lower Canyon
Bowen 23C-3133	624-634	2%	15	400	15 psig	Canyon
Bowen 23LC-3133*	753-782	2%	29	2000	15 psig	Lower Canyon
Bowen 43C-3133	562-577	2%	17	2000	15 psig	Canyon
Bowen 43LC-3133*	696-725	2%	31	2000	15 psig	Lower Canyon
Bulkley 14-2534	717-756	2%	23	400	15 psig	Lower Canyon
Butcher Fed 12LC-423*	486-516	2%	35	2000	15 psig	Lower Canyon
Butcher 14A-2933	183-203	2%	21	2000	15 psig	Anderson
Butcher 14C-3033	523-546	2%	17	400	15 psig	Canyon
Butcher 14C-3133*	757-797	2%	18	400	15 psig	Canyon
Butcher 14LC-2933	605-629	2%	28	2000	15 psig	Lower Canyon
Butcher 14LC-3033	646-665	2%	28	400	15 psig	Lower Canyon
Butcher 14LC-3133*	928-958	2%	29	400	15 psig	Lower Canyon
Butcher 21C-3133	525-545	2%	15	2000	15 psig	Canyon
Butcher 21C-3233	409-422	2%	17	2000	15 psig	Canyon
Butcher 21LC-3133	651-684	2%	28	2000	15 psig	Lower Canyon
Butcher 21LC-3233*	566.5-596	2%	26	2000	15 psig	Lower Canyon
Butcher 23A-3033	179-199	2%	21	400	15 psig	Anderson
Butcher 23C-2933	372-386	2%	17	400	15 psig	Canyon
Butcher 23C-3233	496-529	2%	24	2000	15 psig	Canyon
Butcher 23C-523**	403-434	2%	34	2000	15 psig	Canyon

Well Name	Pefferated Zones (Feet)	Porosity (%)	Coal Thickness (Feet)	Maximum Injection Rate (bbls/day) <sup>1,2</sup>	Maximum Surface Injection Pressure (psig) <sup>1</sup>	Coal Seam
Butcher 23LC-2933	546-564	2%	30	400	15 psig	Lower Canyon
Butcher 23LC-3033*	624-645	2%	28	400	15 psig	Lower Canyon
Butcher 23LC-3233	631-644	2%	28	2000	15 psig	Lower Canyon
Butcher 23WA-523	880-904	2%	28	2000	15 psig	Wall
Butcher 31C-523*	349-373	2%	34	2000	15 psig	Canyon
Butcher 31LC-523	517.5-552.5	2%	29	2000	15 psig	Lower Canyon
Butcher 32LC-3133	727-756	2%	29	2000	15 psig	Lower Canyon
Butcher 34C-3033	521-538	2%	16	2000	15 psig	Canyon
Butcher 34C-3233	363-394	2%	30	2000	15 psig	Canyon
Butcher 34LC-3033	628-650	2%	28	2000	15 psig	Lower Canyon
Butcher 34WA-3233	834-858	2%	26	2000	15 psig	Wall
Butcher State 41LC-2833	360-388	2%	35	2000	15 psig	Lower Canyon
Butcher 41LC-3133	626-650	2%	28	2000	15 psig	Lower Canyon
Butcher 42C-523*	380-409	2%	36	2000	15 psig	Canyon
Butcher 42WA-523	782-801	2%	25	2000	15 psig	Wall
Butcher 43C-3033*	453-468	2%	17	400	15 psig	Canyon
Butcher 43LC-3033	587-611	2%	27	400	15 psig	Lower Canyon
Butcher Fed 21LC-523*	540-567	2%	28	2000	15psig	Lower Canyon
Butcher State 41C-2833	221-251	2%	30	2000	15 psig	Canyon
Hall 11C-123	296-358	2%	55	2000	15 psig	Canyon
Hall 11C-2533*	274-328	2%	62	400	15 psig	Canyon
Hall 11C-3533*	435-503	2%	72	2000	15 psig	Canyon
Hall 12A-3533**	123-145	2%	18	2000	15 psig	Anderson
Hall 12WA-3533*	806-817	2%	17	2000	15 psig	Wall
Hall 13C-123*	306-366	2%	54	400	15 psig	Canyon
Hall 13C-3533	446-519	2%	71	2000	15 psig	Canyon
Hall 14A-3533	151-178	2%	18	2000	15 psig	Anderson
Hall 14C-123*	397-453	2%	58	400	15 psig	Canyon
Hall 14C-2633	412-481	2%	71	2000	15 psig	Canyon
Hall 14WA-3533*	782-806	2%	17	2000	15 psig	Wall
Hall 22C-123**	291-342	2%	47	400	15 psig	Canyon
Hall 22C-2533	325-385	2%	66	2000	15 psig	Canyon

Well Name	Perforated Zones (Feet)	Porosity (%)	Coal Thickness (Feet)	Maximum Injection Rate (bbls/day) <sup>1,2</sup>	Maximum Surface Injection Pressure (psig) <sup>1</sup>	Coal Seam
Hall 24C-2433	341-396	2%	62	400	15 psig	Canyon
Hall 32WA-1123	786-801	2%	20	400	15 psig	Wall
Hall 41C-3433*	405-476	2%	67	2000	15 psig	Canyon
Hall 42C-3533	279-346	2%	74	2000	15 psig	Canyon
Hall 43C-223*	335-386	2%	64	2000	15 psig	Canyon
Hall 43WA-223	704-722	2%	18	400	15 psig	Wall
Hall 44C-2633	258-315	2%	69	2000	15 psig	Canyon
Hall 44C-3533*	318-386	2%	69	2000	15 psig	Canyon
Hall Fed 11C-2633	319-380	2%	62	400	15 psig	Canyon
Hall Fed 13C-2533*	315-378	2%	65	2000	15 psig	Canyon
Hall Fed 13C-2633	354-418	2%	68	2000	15 psig	Canyon
Hall Fed 21C-3433**	308-335	2%	36	2000	15 psig	Canyon
Hall Fed 21LC-3433*	437-467	2%	28	2000	15 psig	Lower Canyon
Hall Fed 22C-3533*	376-449	2%	71	2000	15 psig	Canyon
Hall Fed 24C-2533*	314-367	2%	68	2000	15 psig	Canyon
Hall Fed 24C-2633	339-396	2%	71	2000	15 psig	Canyon
Hall Fed 24C-3533	392-462	2%	67	2000	15 psig	Canyon
Hall Fed 31C-3533	293-362	2%	75	2000	15 psig	Canyon
Hall Fed 32C2-2633*	245-305	2%	50	2000	15 psig	Canyon
Hall Fed 33C-3533*	338-402	2%	76	2000	15 psig	Canyon
Hall Fed 42C-2633*	321-381	2%	57	2000	15 psig	Canyon
Hensley 12C-2833*	343-358	2%	22	400	15 psig	Canyon
Hensley 12LC-2833	477-505	2%	30	400	15 psig	Lower Canyon
Hensley 12WA-2833	790-814	2%	23	400	15 psig	Wall
Hensley Fed 13LC-2833*	486-516	2%	30	2000	15 psig	Lower Canyon
Hensley 14C-2233	203-228	2%	32	400	15 psig	Canyon
Hensley 14LC-2233*	339-374	2%	34	400	15 psig	Lower Canyon
Hensley 21C-3333**	277-306	2%	31	2000	15 psig	Canyon
Hensley 21WA-3333	773-795	2%	26	2000	15 psig	Wall
Hensley 23C-2733	324-351	2%	28	2000	15 psig	Canyon
Hensley 23LC-2233	300-326	2%	32	400	15 psig	Lower Canyon
Hensley 23LC-2733	464-492	2%	31	2000	15 psig	Lower Canyon
Hensley 23LC-2833	464-495	2%	32	2000	15 psig	Lower Canyon
Hensley 34C-2133*	194-207	2%	26	400	15 psig	Canyon
Hensley 34C2-2833	240-272	2%	31	2000	15 psig	Canyon
Hensley 34C-2733**	383-405	2%	34	2000	15 psig	Canyon

Well Name	Perforated Zones (Feet)	Porosity (%)	Coal Thickness (Feet)	Maximum Injection Rate (bbls/day) <sup>1,2</sup>	Maximum Surface Injection Pressure (psig) <sup>1</sup>	Coal Seam
Hensley 34LC-2133	340-370	2%	34	400	15 psig	Lower Canyon
Hensley 34LC-2833*	418-445	2%	34	2000	15 psig	Lower Canyon
Hensley Trust 32C-2733	277-303	2%	23	2000	15 psig	Canyon
Hinkes 21C-1123*	385-453	2%	61	2000	15 psig	Canyon
Landeck 12A-223	140-168	2%	36	2000	15 psig	Anderson
Landeck 12C-223	419-486	2%	72	2000	15 psig	Canyon
Landeck 12WA-223*	754-768	2%	34	2000	15 psig	Wall
Landeck 14A-223**	173-208	2%	38	2000	15 psig	Anderson
Landeck 14C-223*	421-482	2%	62	2000	15 psig	Canyon
Landeck 14WA-223	774-799	2%	19	2000	15 psig	Wall
Landeck 21C-323	459-529	2%	72	2000	15 psig	Canyon
Landeck 21C-423**	331-362	2%	36	2000	15 psig	Canyon
Landeck 21LC-423*	472-505.5	2%	33	2000	15 psig	Lower Canyon
Landeck 21WA-323	792-807	2%	24	2000	15 psig	Wall
Landeck 23C-223	429-493	2%	62	2000	15 psig	Canyon
Landeck 23C-323	415-482	2%	73	2000	15 psig	Canyon
Landeck 23C-3433*	327-357	2%	38	2000	15 psig	Canyon
Landeck 23C-423*	434-476	2%	38	2000	15 psig	Canyon
Landeck 23WA-323	749-770	2%	19	2000	15 psig	Wall
Landeck 23WA-3433	726-745	2%	21	2000	15 psig	Wall
Landeck 23WA-423*	805-830	2%	24	2000	15 psig	Wall
Landeck 32A-323	154-187	2%	13	2000	15 psig	Anderson
Landeck 32A-3433**	148-160	2%	21	2000	15 psig	Anderson
Landeck 32C-3433	425-475	2%	44	2000	15 psig	Canyon
Landeck 32WA-323	766-785	2%	18	2000	15 psig	Wall
Landeck 32WA-3433	775-794	2%	19	2000	15 psig	Wall
Landeck 34A-323**	121-150	2%	36	2000	15 psig	Anderson
Landeck 34C-323	390-486	2%	71	2000	15 psig	Canyon
Landeck 34WA-323*	711-729	2%	18	2000	15 psig	Wall
Landeck 43A-323**	149-179	2%	38	2000	15 psig	Anderson
Landeck 43C-323	427-496	2%	65	2000	15 psig	Canyon
Landeck 43C-3433	424-493	2%	68	2000	15 psig	Canyon
Landeck 43WA2-323	765-784	2%	18	2000	15 psig	Wall
Landeck 43WA-423*	788-808	2%	22	2000	15 psig	Wall
Landeck 44WA-3433	774-792	2%	18	2000	15 psig	Wall
Landeck Fed 14C-323	452-514	2%	76	2000	15 psig	Canyon
Landeck Fed 21C-223*	424-497	2%	66	2000	15 psig	Canyon

Well Name	Perforated Zones (Feet)	Porosity (%)	Coal Thickness (Feet)	Maximum Injection Rate (bbls/day) <sup>1,2</sup>	Maximum Surface Injection Pressure (psig) <sup>1</sup>	Coal Seam
Landeck State 42B-423*	815-837	2%	22	2000	15 psig	Wall
Landeck 21WA-423*	760-791	2%	19	2000	15 psig	Wall
Lindquist 12A-3333	152-172	2%	21	2000	15 psig	Anderson Canyon
Lindquist 12C-523	452-498	2%	37	2000	15 psig	Canyon
Lindquist 12LC-3333	492-518	2%	28	2000	15 psig	Lower Canyon
Lindquist 12LC-523	614-639	2%	28	2000	15 psig	Lower Canyon
Lindquist 12WA-3333	800-823	2%	26	2000	15 psig	Wall
Lindquist 14C-3333*	370-399	2%	34	2000	15 psig	Canyon
Lindquist 14LC-3233	610-638	2%	30	2000	15 psig	Lower Canyon
Lindquist 14LC-3333	540-566	2%	30	2000	15 psig	Lower Canyon
Lindquist 14WA-3233*	941-962	2%	26	2000	15 psig	Wall
Lindquist 14WA-3333	827-851	2%	25	2000	15 psig	Wall
Lindquist 32C-3233*	365-383	2%	25	2000	15 psig	Canyon
Lindquist 32LC-3233*	566.5-596	2%	27	2000	15 psig	Lower Canyon
Lindquist 34C-3133	540-562	2%	22	2000	15 psig	Canyon
Lindquist 34LC-3133	711-730	2%	31	2000	15 psig	Lower Canyon
Lindquist 41LC-623*	604-635	2%	30	2000	15 psig	Lower Canyon
Lindquist 43C-3233*	343-381	2%	32	2000	15 psig	Canyon
Lindquist 43LC-3233*	506-537	2%	28	2000	15 psig	Lower Canyon
Lynde 11C-3032*	216-246	2%	31	400	15 psig	Lower Canyon
Lynde 12C-3032**	181-240	2%	64	2000	15 psig	Canyon
Lynde 13C-3032**	257-317	2%	64	2000	15 psig	Canyon
Lynde 14C-3032**	241-296	2%	61	400	15 psig	Canyon
Lynde 21C-3032**	175-193	2%	31	400	15 psig	Lower Canyon
Lynde 22C-3032**	164-194	2%	31	400	15 psig	Lower Canyon
Lynde 23C-3032**	175-229	2%	62	400	15 psig	Canyon
Lynde 24C2-3032**	166-218	2%	60	400	15 psig	Canyon
Lynde 31C-2533*	331-393	2%	65	400	15 psig	Canyon
Lynde 32C-2533	362-422	2%	66	2000	15 psig	Canyon
Lynde 33C-2533	335-394	2%	67	2000	15 psig	Canyon
Lynde 34C-2533*	357-414	2%	66	2000	15 psig	Canyon

Well Name	Pefferated Zones (Feet)	Porosity (%)	Coal Thickness (Feet)	Maximum Injection Rate (bbls/day) <sup>1,2</sup>	Maximum Surface Injection Pressure (psig) <sup>1</sup>	Coal Seam
Lynde 41C-2533**	230-279	2%	62	400	15 psig	Canyon
Lynde 42C-2533**	295-361	2%	66	2000	15 psig	Canyon
Lynde 43C-2533*	337-397	2%	66	2000	15 psig	Canyon
Lynde 44C-2533**	284-338	2%	64	400	15 psig	Canyon
Reile 23C-3333	291-336	2%	33	2000	15 psig	Canyon
Reile 23LC-3333	464-484	2%	29	2000	15 psig	Lower Canyon
Reile 34C-3333**	307-326	2%	34	2000	15 psig	Canyon
Reile 34LC-3333	447-468	2%	30	2000	15 psig	Lower Canyon
Scott 12C-3433*	256-288	2%	34	2000	15 psig	Canyon
Scott 12LC <sup>2</sup> -3433*	427-455	2%	17	2000	15 psig	Lower Canyon
Scott 12WA-3433	704-721	2%	22	2000	15 psig	Wall
Scott 14A-3433	109-130	2%	22	2000	15 psig	Anderson
Scott 14C-3433	327-360	2%	34	2000	15 psig	Canyon
Scott 14LC-3433	461-489	2%	33	2000	15 psig	Lower Canyon
Scott 14WA-3433	737-754	2%	23	2000	15 psig	Wall
Scott 31LC-3233	516-537	2%	27	2000	15 psig	Lower Canyon
Scott 32C-3333**	276-302	2%	34	2000	15 psig	Canyon
Scott 32LC-2933*	473-497	2%	30	400	15 psig	Lower Canyon
Scott 32LC-3333	448-475	2%	32	2000	15 psig	Lower Canyon
Scott 32WA-3333	782-803	2%	24	2000	15 psig	Wall
Scott 34LC-2933	518-540	2%	28	2000	15 psig	Lower Canyon
Scott 41A-3233	148-166 & 190-200	2%	35	2000	15 psig	Anderson & Lower Canyon
Scott 41C-3333	251-276	2%	34	2000	15 psig	Canyon
Scott 41WA-3233	837-858	2%	26	2000	15 psig	Wall
Scott 41WA-3333	718-739	2%	23	2000	15 psig	Wall
Scott 43A-2933	154-172	2%	21	2000	15 psig	Anderson
Scott 43C-2833*	239-269	2%	31	2000	15 psig	Canyon
Scott 43C-3333**	266-297	2%	33	2000	15 psig	Canyon
Scott 43LC-2833	438-459	2%	35	2000	15 psig	Lower Canyon
Scott 43LC-2933	511-539	2%	29	2000	15 psig	Lower Canyon
Scott 43WA-3333*	714-732	2%	23	2000	15 psig	Wall

Well Name	Perforated Zones (Feet)	Porosity (%)	Coal Thickness (Feet)	Maximum Injection Rate (bbls/day) <sup>1,2</sup>	Maximum Surface Injection Pressure (psig) <sup>1</sup>	Coal Seam
Scott Fed 12C-2733	314-348	2%	30	2000	15 psig	Canyon
Scott Fed 14C-2733*	285-310	2%	33	2000	15 psig	Canyon
Scott Fed 14C-2833**	297-325	2%	22	2000	15 psig	Canyon
Scott Fed 14LC-2733*	442-476	2%	30	2000	15 psig	Lower Canyon
Scott Fed 14LC-2833*	466-494	2%	30	2000	15 psig	Lower Canyon
State 11C-3633**	274-329	2%	70	2000	15 psig	Canyon
State 21C-2733	263-294	2%	30	400	15 psig	Canyon
State 21LC-2733	379-412	2%	33	400	15 psig	Lower Canyon
State 22C-3633**	352-403	2%	67	2000	15 psig	Canyon
State 24C-3533*	392-462	2%	74	2000	15 psig	Canyon
State 24C-3633*	351-408	2%	60	2000	15 psig	Canyon
State 31C-3633**	249-302	2%	66	2000	15 psig	Canyon
State 42C-3633**	254-300	2%	61	400	15 psig	Canyon
State Bulkley 12A-3634	293-318	2%	19	400	15 psig	Anderson
State Bulkley 12LC-3634	762-780	2%	23	400	15 psig	Lower Canyon
State Bulkley 14LC-3634	825-844	2%	27	400	15 psig	Lower Canyon
State Bulkley 21LC-3634*	722-740	2%	25	400	15 psig	Lower Canyon
State Bulkley 21WA-3634*	1117-1136	2%	33	400	15 psig	Wall
State Bulkley 23LC-3634	774-791	2%	30	400	15 psig	Lower Canyon
State Bulkley 23WA-3634*	1154-1171	2%	36	400	15 psig	Wall
State Bulkley 32LC-3634	765-782	2%	27	2000	15 psig	Lower Canyon
State Bulkley 32WA-3634	1122-1149	2%	27	2000	15 psig	Wall
State Bulkley 34LC-3634*	843-860	2%	30	400	15 psig	Lower Canyon
State Bulkley 34WA-3634	1226-1247	2%	32	400	15 psig	Wall
State Bulkley 41LC-3634	751-770	2%	26	2000	15 psig	Lower Canyon
State Bulkley 41WA-3634*	1138-1150	2%	30	2000	15 psig	Wall
State Bulkley 43LC-3634	890-912	2%	29	400	15 psig	Lower Canyon

Well Name	Perforated Zones (Feet)	Porosity (%)	Coal Thickness (Feet)	Maximum Injection Rate (bbls/day) <sup>1,2</sup>	Maximum Surface Injection Pressure (psig) <sup>1</sup>	Coal Seam
State Bulkley 43WA-3634	1245-1264	2%	32	2000	15 psig	Wall
Twenty Mile 12A-623	556-572	2%	21	400	15 psig	Anderson
Twenty Mile 12LC2-623	996-1017	2%	29	400	15 psig	Lower Canyon
Twenty Mile 14C-523	473-503	2%	33	2000	15 psig	Canyon
Twenty Mile 14C-623	735-754	2%	23	400	15 psig	Canyon
Twenty Mile 14LC-523	584-611	2%	28	2000	15 psig	Lower Canyon
Twenty Mile 14LC-623*	913-925	2%	29	400	15 psig	Lower Canyon
Twenty Mile 23LC-623	781-806	2%	30	400	15 psig	Lower Canyon
Twenty Mile 32A-623	511-540	2%	20	2000	15 psig	Anderson
Twenty Mile 32LC-623	694-734	2%	31	2000	15 psig	Lower Canyon
Twenty Mile 34C-623	614-632	2%	27	2000	15 psig	Canyon
Twenty Mile 34LC-623*	765-795	2%	32	2000	15 psig	Lower Canyon
Twenty Mile 43A-623	272-290	2%	21	2000	15 psig	Anderson
Twenty Mile 43WA-623	981-1001	2%	28	2000	15 psig	Wall

**Table 1B (Perforated Zones - Phase II)**

Well Name	Perforated Zones (Feet)	Porosity (%)	Coal Thickness (Feet)	Maximum Injection Rate (bbls/day) <sup>1,2</sup>	Maximum Surface Injection Pressure (psig) <sup>1</sup>	Coal Seam
Harris Federal 12C-823	560-598	2%	36	2000	15 psig	Canyon
Harris Federal 21C-823*	448-478	2%	35	2000	15 psig	Canyon
Harris Fed 21LC-823	553-579	2%	30	2000	15 psig	Lower Canyon
Hinkes 12A-1123	194-228	2%	41	2000	15 psig	Anderson
Hinkes 12C-1123	361-425	2%	64	2000	15 psig	Canyon
Hinkes 14A-1123**	158-190	2%	40	2000	15 psig	Anderson
Hinkes 14C-1123	407-458	2%	65	2000	15 psig	Canyon
Hinkes 23A-1123	245-281	2%	46	2000	15 psig	Anderson
Hinkes 23WA-1123	727-749	2%	19	2000	15 psig	Wall
Hinkes 32WA-1023	779-800	2%	20	2000	15 psig	Wall
Hinkes 34C-1023	415-478	2%	67	2000	15 psig	Canyon

Well Name	Perforated Zones (Feet)	Porosity (%)	Coal Thickness (Feet)	Maximum Injection Rate (bbls/day) <sup>1,2</sup>	Maximum Surface Injection Pressure (psig) <sup>1</sup>	Coal Seam
Hinkes 34WA-1023	802-823	2%	26	2000	15 psig	Wall
Hinkes 41A-1023**	121-150	2%	37	2000	15 psig	Anderson
Hinkes 41C-1023	416-488	2%	67	2000	15 psig	Canyon
Hinkes 43A-1023*	144-206	2%	36	2000	15 psig	Anderson
Hinkes 43C-1023*	386-444	2%	64	2000	15 psig	Canyon
Landeck 12C-1023	534-610	2%	72	2000	15 psig	Canyon
Landeck 12WA-1023*	859-880	2%	22	2000	15 psig	Wall
Landeck 14C-423	497-550	2%	67	2000	15 psig	Canyon
Landeck 14WA-1023*	1022-1046	2%	26	2000	15 psig	Wall
Landeck 14WA-423*	820-850	2%	26	2000	15 psig	Wall
Landeck 21C-1023	399-471	2%	77	2000	15 psig	Canyon
Landeck 21WA-1023	732-750	2%	20	2000	15 psig	Wall
Landeck 23C-1023	506-579	2%	69	2000	15 psig	Canyon
Landeck 23WA-1023*	828-851	2%	24	2000	15 psig	Wall
Landeck 34WA-423	809-833	2%	24	2000	15 psig	Wall
ST 12C-1623	587-652	2%	64	400	15 psig	Canyon
ST 22A-1623	321-362	2%	37	2000	15 psig	Anderson
ST 23A-1623	333.5-370.5	2%	36	2000	15 psig	Anderson
ST 23C-1623	601-670	2%	57	2000	15 psig	Canyon
ST 24A-1623	348-387	2%	37	400	15 psig	Anderson
ST 32A-1623	383-425	2%	37	2000	15 psig	Anderson
ST 32C-1623	653-713	2%	65	2000	15 psig	Canyon
ST 33A2-1623	432-460	2%	36	2000	15 psig	Anderson
ST 34C-1623	687-750	2%	62	400	15 psig	Canyon
ST 41A-1623	360-395	2%	38	2000	15 psig	Anderson
ST 42A-1623	425-467	2%	38	2000	15 psig	Anderson
ST 43C-1623	746-802	2%	67	2000	15 psig	Canyon
Taylor 32C-823	540-604	2%	65	2000	15 psig	Canyon
Taylor 34C-823*	526-600	2%	71	400	15 psig	Canyon
Taylor 43WA-823	858-878	2%	28	400	15 psig	Wall
Taylor Fed 23WA-823	875-897	2%	28	400	15 psig	Wall
Triton 43C-2323*	596-656	2%	48	400	15 psig	Canyon
Twenty Mile 12C2-1423**	515-575	2%	71	2000	15 psig	Canyon
Twenty Mile 14C-1423*	488-553	2%	69	2000	15 psig	Canyon
Twenty Mile 21C-1523*	500-569	2%	70	2000	15 psig	Canyon
Twenty Mile 21C-2323	580-630	2%	66	2000	15 psig	Canyon
Twenty Mile 21WA-923	884-904	2%	26	2000	15 psig	Wall
Twenty Mile 24C-923	622-690	2%	67	2000	15 psig	Canyon

Well Name	Perforated Zones (Feet)	Porosity (%)	Coal Thickness (Feet)	Maximum Injection Rate (bbls/day) <sup>1,2</sup>	Maximum Surface Injection Pressure (psig) <sup>1</sup>	Coal Seam
Twenty Mile 32A-2223**	274-303	2%	33	400	15 psig	Anderson
Twenty Mile 32C-1523	493-559	2%	69	2000	15 psig	Canyon
Twenty Mile 32C-923	545-595	2%	75	2000	15 psig	Canyon
Twenty Mile 32WA-1423*	774-793	2%	17	400	15 psig	Wall
Twenty Mile 34WA-1123	770-788	2%	18	400	15 psig	Wall
20 Mile 34C-923	640-714	2%	68	2000	15 psig	Canyon
Twenty Mile 41A-1523**	176-206	2%	35	2000	15 psig	Anderson
Twenty Mile 41A-2223**	205-245	2%	34	2000	15 psig	Anderson
Twenty Mile 41C-1523	433-493	2%	64	2000	15 psig	Canyon
Twenty Mile 41C-2223	478-532	2%	64	2000	15 psig	Canyon
Twenty Mile 41C-723	565-595	2%	31	2000	15 psig	Canyon
Twenty Mile 41LC-723	660-680	2%	32	2000	15 psig	Lower Canyon
Twenty Mile 43A-1523**	194-223	2%	35	2000	15 psig	Anderson
Twenty Mile 43C-1523*	478-530	2%	70	2000	15 psig	Canyon
Twenty Mile Fed 14C-2323	553-617	2%	71	400	15 psig	Canyon
Twenty Mile Fed 34C-2223	636-695	2%	60	400	15 psig	Canyon
Twenty Mile Fed 43C-2223*	522-580	2%	59	2000	15 psig	Canyon

<sup>1</sup> Maximum limits are not to be exceeded during any injection period. Additional perforation zones may be extended within the Anderson, Canyon, Lower Canyon and Wall coal seams.

<sup>2</sup> Well injection rates are limited to 400 bbls/day for wells located near the periphery of the area of review to prevent injection effects from extending beyond the area of review.

During the baseline groundwater characterization phase, it was not possible to sample every well at this facility due to the following:

\*Well down due to mechanical issues (pump failure, etc. – 90 wells).

\*\*Dry well (36 wells).

**B. Injection/Production Well Locations and Area of Review**

The Phase I injection/production wells authorized by this permit are identified in **Table 2** as follows:

**Table 2 (Phase I Injection/Production Wells - Public Land Survey Locations)**

Well Name	Quarter/Quarter	Section	Township	Range
Landeck 24B2-323	SESW	3	52N	73W
Landeck 32C-323	SWNE	3	52N	73W
Landeck 41C-323	NENE	3	52N	73W
Bowen 12C-3233	SWNW	32	53N	73W
Bowen 12WA-3233	SWNW	32	53N	73W
Bowen 21C-623	NENW	6	52N	73W
Bowen 21LC-623	NENW	6	52N	73W
Bowen 23C-3133	NESW	31	53N	73W
Bowen 23LC-3133	NESW	31	53N	73W
Bowen 43C-3133	NESE	31	53N	73W
Bowen 43LC-3133	NESE	31	53N	73W
Bulkley 14-2534	SWSW	25	53N	74W
Butcher Federal12LC-423	SWNW	4	52N	73W
Butcher 14A-2933	SWSW	29	53N	73W
Butcher 14C-3033	SWSW	30	53N	73W
Butcher 14C-3133	SWSW	31	53N	73W
Butcher 14LC-2933	SWSW	29	53N	73W
Butcher 14LC-3033	SWSW	30	53N	73W
Butcher 14LC-3133	SWSW	31	53N	73W
Butcher 21C-3133	NENW	31	53N	73W
Butcher 21C-3233	NENW	32	53N	73W
Butcher 21LC-3133	NENW	31	53N	73W
Butcher 21LC-3233	NENW	32	53N	73W
Butcher 23A-3033	NESW	30	53N	73W
Butcher 23C-2933	NESW	29	53N	73W
Butcher 23C-3233	NESW	32	53N	73W
Butcher 23C-523	NESW	5	52N	73W
Butcher 23LC-2933	NESW	29	53N	73W
Butcher 23LC-3033	NESW	30	53N	73W
Butcher 23LC-3233	NESW	32	53N	73W
Butcher 23WA-523	NESW	5	52N	73W
Butcher 31C-523	NWNE	5	52N	73W
Butcher 31LC-523	NWNE	5	52N	73W
Butcher 32LC-3133	SWNE	31	53N	73W
Butcher 34C-3033	SWSE	30	53N	73W
Butcher 34C-3233	SWSE	32	53N	73W
Butcher 34LC-3033	SWSE	30	53N	73W
Butcher 34WA-3233	SWSE	32	53N	73W
Butcher 41LC-2833	NENE	28	53N	73W
Butcher 41LC-3133	NENE	31	53N	73W
Butcher 42C-523	SENE	5	52N	73W

Well Name	Quarter/Quarter	Section	Township	Range
Butcher 42WA-523	SENE	5	52N	73W
Butcher 43C-3033	NESE	30	53N	73W
Butcher 43LC-3033	NESE	30	53N	73W
Butcher Fed 21LC-523	NENW	5	52N	73W
Butcher State 41C-2833	NENE	28	53N	73W
Hall 11C-123	NWNW	1	52N	73W
Hall 11C-2533	NWNW	25	53N	73W
Hall 11C-3533	NWNW	35	53N	73W
Hall 12A-3533	SWNW	35	53N	73W
Hall 12WA-3533	SWNW	35	53N	73W
Hall 13C-123	NWSW	1	52N	73W
Hall 13C-3533	NWSW	35	53N	73W
Hall 14A-3533	SWSW	35	53N	73W
Hall 14C-123	SWSW	1	52N	73W
Hall 14C-2633	SWSW	26	53N	73W
Hall 14WA-3533	SWSW	35	53N	73W
Hall 22C-123	SENW	1	52N	73W
Hall 22C-2533	SENW	25	53N	73W
Hall 24C-2433	SESW	24	53N	73W
Hall 32WA-1123	SWNE	11	52N	73W
Hall 41C-3433	NENE	34	53N	73W
Hall 42C-3533	SENE	35	53N	73W
Hall 43C-223	NESE	2	52N	73W
Hall 43WA-223	NESE	2	52N	73W
Hall 44C-2633	SESE	26	53N	73W
Hall 44C-3533	SESE	35	53N	73W
Hall Fed 11C-2633	NWNW	26	53N	73W
Hall Fed 13C-2533	NWSW	25	53N	73W
Hall Fed 13C-2633	NWSW	26	53N	73W
Hall Fed 21C-3433	NENW	34	53N	73W
Hall Fed 21LC-3433	NENW	34	53N	73W
Hall Fed 22C-3533	SENW	35	53N	73W
Hall Fed 24C-2533	SESW	25	53N	73W
Hall Fed 24C-2633	SESW	26	53N	73W
Hall Fed 31C-3533	NWNE	35	53N	73W
Hall Fed 32C2-2633	SWNE	26	53N	73W
Hall Fed 33C-3533	NWSE	35	53N	73W
Hall Fed 42C-2633	SENE	26	53N	73W
Hensley 12C-2833	SWNW	28	53N	73W
Hensley 12LC-2833	SWNW	28	53N	73W
Hensley 12WA-2833	SWNW	28	53N	73W
Hensley Federal 13LC-2833	NWSW	28	53N	73W
Hensley 14C-2233	SWSW	22	53N	73W
Hensley 14LC-2233	SWSW	22	53N	73W
Hensley 21C-3333	NENW	33	53N	73W
Hensley 21WA-3333	NENW	33	53N	73W

Well Name	Quarter/Quarter	Section	Township	Range
Hensley 23C-2733	NESW	27	53N	73W
Hensley 23LC-2233	NESW	22	53N	73W
Hensley 23LC-2733	NESW	27	53N	73W
Hensley 23LC-2833	NESW	28	53N	73W
Hensley 34C-2133	SWSE	21	53N	73W
Hensley 34C2-2833	SWSE	28	53N	73W
Hensley 34C-2733	SWSE	27	53N	73W
Hensley 34LC-2133	SWSE	21	53N	73W
Hensley 34LC-2833	SWSE	28	53N	73W
Hensley Trust 32C-2733	SWNE	27	53N	73W
Hinkes 21C-1123	NENW	11	52N	73W
Landeck 12A-223	SWNW	2	52N	73W
Landeck 12C-223	SWNW	2	52N	73W
Landeck 12WA-223	SWNW	2	52N	73W
Landeck 14A-223	SWSW	2	52N	73W
Landeck 14C-223	SWSW	2	52N	73W
Landeck 14WA-223	SWSW	2	52N	73W
Landeck 21C-323	NENW	3	52N	73W
Landeck 21C-423	NENW	4	52N	73W
Landeck 21LC-423	NENW	4	52N	73W
Landeck 21WA-423	NENW	3	52N	73W
Landeck 23C-223	NESW	2	52N	73W
Landeck 23C-323	NESW	3	52N	73W
Landeck 23C-3433	NESW	34	53N	73W
Landeck 23C-423	NESW	4	52N	73W
Landeck 23WA-323	NESW	3	52N	73W
Landeck 23WA-3433	NESW	34	53N	73W
Landeck 23WA-423	NESW	4	52N	73W
Landeck 32A-323	SWNE	3	52N	73W
Landeck 32A-3433	SWNE	34	53N	73W
Landeck 32C-3433	SWNE	34	53N	73W
Landeck 32WA-323	SWNE	3	52N	73W
Landeck 32WA-3433	SWNE	34	53N	73W
Landeck 34A-323	SWSE	3	52N	73W
Landeck 34C-323	SWSE	3	52N	73W
Landeck 34WA-323	SWSE	3	52N	73W
Landeck 43A-323	NESE	3	52N	73W
Landeck 43C-323	NESE	3	52N	73W
Landeck 43C-3433	NESE	34	53N	73W
Landeck 43WA2-323	NESE	3	52N	73W
Landeck 43WA-423	NESE	4	52N	73W
Landeck 44WA-3433	SESE	34	53N	73W
Landeck Fed 14C-323	SWSW	3	52N	73W
Landeck Fed 21C-223	NENW	2	52N	73W
Landeck State 42B-423	SENE	4	52N	73W
Landeck 21WA-423	NENW	4	52N	73W

Well Name	Quarter/Quarter	Section	Township	Range
Lindquist 12A-3333	SWNW	33	53N	73W
Lindquist 12C-523	SWNW	5	52N	73W
Lindquist 12LC-3333	SWNW	33	53N	73W
Lindquist 12LC-523	SWNW	5	52N	73W
Lindquist 12WA-3333	SWNW	33	53N	73W
Lindquist 14C-3333	SWSW	33	53N	73W
Lindquist 14LC-3233	SWSW	32	53N	73W
Lindquist 14LC-3333	SWSW	33	53N	73W
Lindquist 14WA-3233	SWSW	32	53N	73W
Lindquist 14WA-3333	SWSW	33	53N	73W
Lindquist 32C-3233	SWNE	32	53N	73W
Lindquist 32LC-3233	SWNE	32	53N	73W
Lindquist 34C-3133	SWSE	31	53N	73W
Lindquist 34LC-3133	SWSE	31	53N	73W
Lindquist 41LC-623	NENE	6	52N	73W
Lindquist 43C-3233	NESE	32	53N	73W
Lindquist 43LC-3233	NESE	32	53N	73W
Lynde 11C-3032	NWNW	30	53N	72W
Lynde 12C-3032	SWNW	30	53N	72W
Lynde 13C-3032	NWSW	30	53N	72W
Lynde 14C-3032	SWSW	30	53N	72W
Lynde 21C-3032	NENW	30	53N	72W
Lynde 22C-3032	SENW	30	53N	72W
Lynde 23C-3032	NESW	30	53N	72W
Lynde 24C2-3032	SESW	30	53N	72W
Lynde 31C-2533	NWNE	25	53N	73W
Lynde 32C-2533	SWNE	25	53N	73W
Lynde 33C-2533	NWSE	25	53N	73W
Lynde 34C-2533	SWSE	25	53N	73W
Lynde 41C-2533	NENE	25	53N	73W
Lynde 42C-2533	SENE	25	53N	73W
Lynde 43C-2533	NESE	25	53N	73W
Lynde 44C-2533	SESE	25	53N	73W
Reile 23C-3333	NESW	33	53N	73W
Reile 23LC-3333	NESW	33	53N	73W
Reile 34C-3333	SWSE	33	53N	73W
Reile 34LC-3333	SWSE	33	53N	73W
Scott 12C-3433	SWNW	34	53N	73W
Scott 12LC-3433	SWNW	34	53N	73W
Scott 12WA-3433	SWNW	34	53N	73W
Scott 14A-3433	SWSW	34	53N	73W
Scott 14C-3433	SWSW	34	53N	73W
Scott 14LC-3433	SWSW	34	53N	73W
Scott 14WA-3433	SWSW	34	53N	73W
Scott 31LC-3233	NWNE	32	53N	73W
Scott 32C-3333	SWNE	33	53N	73W

Well Name	Quarter/Quarter	Section	Township	Range
Scott 32LC-2933	SWNE	29	53N	73W
Scott 32LC-3333	SWNE	33	53N	73W
Scott 32WA-3333	SWNE	33	53N	73W
Scott 34LC-2933	SWSE	29	53N	73W
Scott 41A-3233	NENE	32	53N	73W
Scott 41C-3333	NENE	33	53N	73W
Scott 41WA-3233	NENE	32	53N	73W
Scott 41WA-3333	NENE	33	53N	73W
Scott 43A-2933	NESE	29	53N	73W
Scott 43C-2833	NESE	28	53N	73W
Scott 43C-3333	NESE	33	53N	73W
Scott 43LC-2833	NESE	28	53N	73W
Scott 43LC-2933	NESE	29	53N	73W
Scott 43WA-3333	NESE	33	53N	73W
Scott Fed 12C-2733	SWNW	27	53N	73W
Scott Fed 14C-2733	SWSW	27	53N	73W
Scott Fed 14C-2833	SWSW	28	53N	73W
Scott Fed 14LC-2733	SWSW	27	53N	73W
Scott Fed 14LC-2833	SWSW	28	53N	73W
State 11C-3633	NWNW	36	53N	73W
State 21C-2733	NENW	27	53N	73W
State 21LC-2733	NENW	27	53N	73W
State 22C-3633	SENW	36	53N	73W
Hall Federal 24C-3533	SESW	35	53N	73W
State 24C-3633	SESW	36	53N	73W
State 31C-3633	NWNE	36	53N	73W
State 42C-3633	SENE	36	53N	73W
State Bulkley 12A-3634	SWNW	36	53N	74W
State Bulkley 12LC-3634	SWNW	36	53N	74W
State Bulkley 14LC-3634	SWSW	36	53N	74W
State Bulkley 21LC-3634	NENW	36	53N	74W
State Bulkley 21WA-3634	NENW	36	53N	74W
State Bulkley 23LC-3634	NESW	36	53N	74W
State Bulkley 23WA-3634	NESW	36	53N	74W
State Bulkley 32LC-3634	SWNE	36	53N	74W
State Bulkley 32WA-3634	SWNE	36	53N	74W
State Bulkley 34LC-3634	SWSE	36	53N	74W
State Bulkley 34WA-3634	SWSE	36	53N	74W
State Bulkley 41LC-3634	NENE	36	53N	74W
State Bulkley 41WA-3634	NENE	36	53N	74W
State Bulkley 43LC-3634	NESE	36	53N	74W
State Bulkley 43WA-3634	NESE	36	53N	74W
Twenty Mile 12A-623	SWNW	6	52N	73W
Twenty Mile 12LC2-623	SWNW	6	52N	73W
Twenty Mile 14C-523	SWSW	5	52N	73W
Twenty Mile 14C-623	SWSW	6	52N	73W

Well Name	Quarter/Quarter	Section	Township	Range
Twenty Mile 14LC-523	SWSW	5	52N	73W
Twenty Mile 14LC-623	SWSW	6	52N	73W
Twenty Mile 23LC-623	NESW	6	52N	73W
Twenty Mile 32A-623	SWNE	6	52N	73W
Twenty Mile 32LC-623	SWNE	6	52N	73W
Twenty Mile 34C-623	SWSE	6	52N	73W
Twenty Mile 34LC-623	SWSE	6	52N	73W
Twenty Mile 43A-623	NESE	6	52N	73W
Twenty Mile 43WA-623	NESE	6	52N	73W

The Phase II injection/production wells authorized by this permit are identified in Table 3 as follows:

**Table 3 (Phase II Injection/Production Wells - Public Land Survey Locations)**

Well Name	Quarter/Quarter	Section	Township	Range
Harris Fed 21C-823	NENW	8	52N	73W
Hinkes 12A-1123	SWNW	11	52N	73W
Hinkes 12C-1123	SWNW	11	52N	73W
Hinkes 14A-1123	SWSW	11	52N	73W
Hinkes 14C-1123	SWSW	11	52N	73W
Hinkes 23A-1123	NESW	11	52N	73W
Hinkes 23WA-1123	NESW	11	52N	73W
Hinkes 32WA-1023	SWNE	10	52N	73W
Hinkes 34C-1023	SWSE	10	52N	73W
Hinkes 34WA-1023	SWSE	10	52N	73W
Hinkes 41A-1023	NENE	10	52N	73W
Hinkes 41C-1023	NENE	10	52N	73W
Hinkes 43A-1023	NESE	10	52N	73W
Hinkes 43C-1023	NESE	10	52N	73W
Landeck 12C-1023	SWNW	10	52N	73W
Landeck 12WA-1023	SWNW	10	52N	73W
Landeck 14C-423	SWSW	4	52N	73W
Landeck 14WA-1023	SWSW	10	52N	73W
Landeck 14WA-423	SWSW	4	52N	73W
Landeck 21C-1023	NENW	10	52N	73W
Landeck 21WA-1023	NENW	10	52N	73W
Landeck 23C-1023	NESW	10	52N	73W
Landeck 23WA-1023	NESW	10	52N	73W
Landeck 34WA-423	SWSE	4	52N	73W
ST 12C-1623	SWNW	16	52N	73W
ST 22A-1623	SENE	16	52N	73W
ST 23A-1623	NESW	16	52N	73W
ST 23C-1623	NESW	16	52N	73W
ST 24A-1623	SESW	16	52N	73W
ST 32A-1623	SWNE	16	52N	73W
ST 32C-1623	SWNE	16	52N	73W

Well Name	Quarter/Quarter	Section	Township	Range
ST 33A2-1623	NWSE	16	52N	73W
ST 34C-1623	SWSE	16	52N	73W
ST 41A-1623	NENE	16	52N	73W
ST 42A-1623	SENE	16	52N	73W
ST 43C-1623	NESE	16	52N	73W
Taylor 32C-823	SWNE	8	52N	73W
Taylor 34C-823	SWSE	8	52N	73W
Taylor 34C-923	SWSE	9	52N	73W
Taylor 43WA-823	NESE	8	52N	73W
Harris Fed 12C-823	SWNW	8	52N	73W
Taylor Fed 21LC-823	NENW	8	52N	73W
Taylor Fed 23WA-823	NESW	8	52N	73W
Triton 43C-2323	NESE	23	52N	73W
Twenty Mile 12C2-1423	SWNW	14	52N	73W
Twenty Mile 14C-1423	SWSW	14	52N	73W
Twenty Mile 21C-1523	NENW	15	52N	73W
Twenty Mile 21C-2323	NENW	23	52N	73W
Twenty Mile 21WA-923	NENW	9	52N	73W
Twenty Mile 24C-923	SESW	9	52N	73W
Twenty Mile 32A-2223	SWNE	22	52N	73W
Twenty Mile 32C-1523	SWNE	15	52N	73W
Twenty Mile 32C-923	SWNE	9	52N	73W
Twenty Mile 32WA-1423	SWNE	14	52N	73W
Twenty Mile 34WA-1123	SWSE	11	52N	73W
Twenty Mile 41A-1523	NENE	15	52N	73W
Twenty Mile 41A-2223	NENE	22	52N	73W
Twenty Mile 41C-1523	NENE	15	52N	73W
Twenty Mile 41C-2223	NENE	22	52N	73W
Twenty Mile 41C-723	NENE	7	52N	73W
Twenty Mile 41LC-723	NENE	7	52N	73W
Twenty Mile 43A-1523	NESE	15	52N	73W
Twenty Mile 43C-1523	NESE	15	52N	73W
Twenty Mile Fed 14C-2323	SWSW	23	52N	73W
Twenty Mile Fed 34C-2223	SWSE	22	52N	73W
Twenty Mile Fed 43C-2223	NESE	22	52N	73W

Table 4 (Area of Review - Public Land Survey Locations)

Section (1/4, 1/4)	Section	Township	Range
SWNE, NW1/4, SW1/4, and NWSE	1	52N	73W
All	2	52N	73W
All	3	52N	73W
All	4	52N	73W

Section (¼, ½)	Section	Township	Range
All	5	52N	73W
All	6	52N	73W
NE¼, NW¼, NESW, NWSW, SESW, and SE¼	7	52N	73W
All	8	52N	73W
All	9	52N	73W
All	10	52N	73W
All	11	52N	73W
NWNW, SWNW, NWSW, and SWSW	12	52N	73W
All	14	52N	73W
All	15	52N	73W
All	16	52N	73W
NENE, NWNE, SENE, NENW, NESE, and SESE	17	52N	73W
NENE	20	52N	73W
NENE, NWNE, NENW, and NWNW	21	52N	73W
NE¼, NENW, NWNW, SENW, NESW, SESW, and SE¼	22	52N	73W
All	23	52N	73W
SWNW and NWSW	24	52N	73W
NENW and NWNW	26	52N	73W
NENE, NWNE, and NENW	27	52N	73W
NE¼, NENW, NWNW, and SE¼	1	52N	74W
NENE and NWNE	2	52N	74W
NENE, NWNE, and SENE	12	52N	74W
SWSW, SESW, and SWSE	19	53N	72W
NWNE, SWNE, NW¼, SW¼, NWSE, and SWSE	30	53N	72W
NWNE, NENW, NWNW, SWNW, and NWSW	31	53N	72W
SESW, SWSE, and SESE	20	53N	73W
SWNE, SENE, NESW, SWSW, SESW, and SE¼	21	53N	73W
SWNE, SWNW, SENW, SW¼, NWSE, SWSE, and SESE	22	53N	73W
SWSW, SESW, SWSE, and SESE	23	53N	73W
SW¼, NWSE, SWSE, and SESE	24	53N	73W
All	25	53N	73W
All	26	53N	73W
All	27	53N	73W
All	28	53N	73W
All	29	53N	73W
All	30	53N	73W
All	31	53N	73W
All	32	53N	73W
All	33	53N	73W
All	34	53N	73W
All	35	53N	73W
All	36	53N	73W

Section (¼, ¼)	Section	Township	Range
SWNE, SENE, SW¼, and SE¼	25	53N	74W
NESE and SESE	26	53N	74W
NENE, SENE, NESE, and SESE	35	53N	74W
All	36	53N	74W

**C. Domestic Use Water Supply Wells Within the Area of Review**

**Table 5 (State Engineer Office (SEO) Domestic Use Wells Within Project Area - Public Land Survey Locations)**

Well Name	Quarter/Quarter	Section	Township	Range
P149408W	SENE	23	52N	73W
P149409W	SWNW	24	52N	73W
P170382W	SENE	33	53N	73W
P177990W	SESE	29	53N	73W
P10236P	SESW	4	52N	73W
P103580W	SENE	14	52N	73W
P115517W	NENW	31	53N	72W
P138462W	NENE	8	52N	73W
P157156W	NENW	4	52N	73W
P166520W	NESW	4	52N	73W
P170664W	SWNW	33	53N	73W
P179243W	SWSE	14	52N	73W
P181995W	NENW	26	52N	73W
P28854W	SENE	29	53N	73W
P57369W	NWNE	26	52N	73W
P66546W	NESW	33	53N	73W
P77545W	SWSE	19	53N	72W
P8543P	NWNW	14	52N	73W
P92989W	SWNW	33	53N	73W
P190997W	NESW	33	53N	73W
P193332W	SWSE	33	53N	73W

Note: The domestic use wells identified in **Table 5** are permitted and authorized by the State Engineer's Office (SEO).

**D. Groundwater Classification**

The groundwater in the Anderson, Canyon, Lower Canyon and Wall coal seams of the Fort Union Formation are classified as Class I (Domestic) by use according to *Wyoming Water Quality Rules and Regulations, Chapter 8*. This classification is assigned because there are several permitted domestic wells within the immediate vicinity that may be utilizing groundwater from the Anderson, Canyon, Lower Canyon and Wall coal seams and Fort Union sand units immediately above and below the coal seams. Since the groundwater is classified as Class I, the water quality of groundwater within the Anderson, Canyon, Lower Canyon and Wall coal seams shall not exceed the permit limits established in **Table 6**.

## E. Authorized Operations

There are 300 wells at this facility, which are completed into four different coal seams – the Wall, Anderson, Canyon, and Lower Canyon. Initially, the Permittee is authorized to operate wells located in the northern portion of the project, identified as “Phase I” wells in **Table 2** of the permit. “Phase II” are wells in the southern portion of the project as identified in **Table 3**. Wells that are removed as injectors from this facility may remain as producing coal bed methane wells. Individual wells may alternate between periods of injection and periods of production.

The Administrator must be able to determine that Phase I groundwater quality has not been nor will be polluted due to operation under the permit before commencement of Phase II will be authorized.

Under no circumstances may the Permittee begin operations of Phase II of the Rough Draw Project without express written consent from the Administrator.

After the cessation of Phase II operation, the Permittee shall perform post-injection monitoring and reporting for the remainder of the permit term. Should the first year of post-injection monitoring and reporting reveal no statistically significant change to groundwater water quality as determined by the Administrator, the permittee may petition the Administrator to reduce post-injection monitoring, modify the monitoring schedule, or to renew the permit.

This permit is valid for ten (10) years. Injection may occur only during the first five (5) years of the permit.

An amendment mixture comprised of vitamins and minerals, multi-nutrients, cell vitality enhancers and produced water (i.e. “injectate”) will be added periodically. The amendment mixture is designed to support and encourage native microbes to produce methane.

The amendments shall only consist of those vitamins and minerals, multi-nutrients, and cell vitality enhancers as confidentially identified and provided to the Department, and only in concentrations or volumes equal to or less than those confidentially identified and provided to the Department as a requirement of the permit application.

The Permittee shall report all amendments added to the amendment mixture, the amounts or volumes added, determine their concentrations within the injectate, and sample the injectate.

The Permittee may not add any other chemical compound, microorganisms, anti-scalants, biocides, algacides, tracers, or other amendments to the injectate without applying for a modification to this permit and obtaining authorization from the Administrator.

Produced water from the four coal seams may be mixed, amended, and re-injected into one or more of the four coal seams in accordance with the requirements of this permit.

The Permittee shall sample groundwater produced from the coal seams. Within five (5) calendar days of receipt of sample data that exceeds an **Upper Prediction Limit** (UPL, see Section I), or exceeds an **Upper Tolerance Limit** (UTL, see Section I) in more than 5% of samples collected during one quarter from an individual coal seam and/or project phase, as appropriate (see Table 6), the Permittee shall collect a confirmatory sample from each well that exceeded a UTL or UPL established in the permit. Once the confirmatory sample is collected, the permittee shall discontinue use of the well or wells until such well(s) are in compliance, as evidenced by subsequent sampling and analysis to be established by the Administrator.

Should a well shut in due to UTL or UPL exceedances be re-worked or otherwise altered in an attempt to meet UTL or UPL permit limits, the well may be brought back on-line and pumped only as long as necessary to collect a representative sample.

The Permittee is authorized to inject at a "maximum sustainable total water production" rate of 2.268 million gallons per day (MGD) over the entire (Phase I and Phase II) project area. For operation and maintenance considerations, such as conducting mechanical integrity tests or well workovers, the Permittee may inject more than the indicated maximum injection rate indicated on **Tables 1A** and **1B** on a temporary basis with prior written approval from the Administrator.

The Permittee is authorized to inject at the maximum surface pressures as indicated in **Tables 1A** and **1B**.

Wells covered under this permit may not be removed from the requirements of the permit without prior approval from the Department. The Permittee shall notify the Administrator thirty (30) days in advance of any planned alteration, conversion, or abandonment of the wells covered by this permit.

The Permittee shall notify the Administrator in writing at the earliest opportunity, and verbally no less than 48 (forty-eight) hours prior to conducting workovers on any well Listed in **Tables 2 or 3** of this permit so that a joint field inspection may be coordinated between both parties.

An approved **Sampling and Analysis Plan (SAP)** that describes all injectate and groundwater sampling locations, sampling frequency, sampling constituents and parameters, equipment and procedures associated with sample collection, laboratory analysis, equipment decontamination, Quality Assurance/Quality Control, sample custody, data reporting, etc. from all sampled wells is required prior to authorization to inject.

The Permittee shall conduct an injection pressure falloff test for at least one injection well per public land survey section (640 acres).

Under no circumstances may the Permittee modify any requirements of this permit without express written approval from the Administrator.

#### **F. Hazardous Waste**

This permit does not allow for the injection of any hazardous waste as defined in 40 CFR 261.3 and in Wyoming Solid Waste Management Rules and Regulations, Chapter 2. Injection of any substance defined as a hazardous waste, whether hazardous by listing or by characteristic, is a violation of this permit.

#### **G. Proper Operation and Maintenance**

The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit. The Permittee shall 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 the permit. Proper operation and maintenance includes mechanical integrity of the wells, effective performance, adequate funding, Permittee staffing and training, and 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 this permit.

The injection wells covered by this permit shall meet all construction requirements outlined in Wyoming Water Quality Rules and Regulations, Chapter 16, Section 10(p) with the exception of water disinfection, conducting pressure fall-off curves for each well, and pressure testing all well casings to 700 psi (per CBM General Permits 5C5-1, 5C5-2, 5C5-3).

The Permittee is required to operate in accordance with statements, representations and procedures presented in the complete permit application and supporting documents as accepted and approved by the Administrator. Any modifications which will result in a violation of permit conditions shall be reported by submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued. Injection into a well may not begin until construction is complete and the permit is approved.

#### **H. Entry and Inspection**

The Permittee shall allow the Administrator (upon presentation of credentials and 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 and photograph the discharge and related facilities, review and copy reports and records required by this permit, collect fluid samples for analysis, measure and record water levels, and perform any other function authorized by law or regulation.

#### **I. Environmental Monitoring Program for Groundwaters of the State**

Groundwater within the project area is classified as Class I by use, however, baseline water quality for Iron, Manganese, Total Dissolved Solids (TDS), and Hydrogen Sulfide all exceed Class I standards. Therefore, these constituents must be protected to their baseline concentrations, rather than their respective Class I standard. For these constituents, the baseline concentrations and permit limits were established by calculating **Upper Tolerance Limits (UTLs)** at 95% confidence and 95% coverage. For those constituents whose baseline concentrations do not exceed their respective Class I standards, their respective Class I standards becomes the UTL.

The following formula was used to calculate the UTL:

$$UTL = x + Ks$$

UTL is the upper tolerance limit, "x" is the arithmetic mean of the data, "s" the standard deviation of the data, and "K" is a variable factor that is dependent upon the number of samples in the data set. 174 independent baseline analyses were submitted.

UTL values are constituent specific, and may also be coal seam and/or Phase specific, as described in **Table 6**.

**Upper Prediction Limits (UPLs)** have also been established in the permit in **Table 6**. The UPL is calculated using the same equation as the UTL. However the K factor is different and is based upon the number of constituents to be analyzed, the length of the permit, the frequency of monitoring, the number of baseline samples, and the number of wells sampled. UPL values are constituent specific, and may also be coal seam and/or Phase specific, as described in **Table 6**.

UTL and UPL limits are established for groundwater samples collected from wells listed in either **Table 2** or **Table 3** of this permit.

Limits also apply to the injectate (See Section J.4.).

a. General Requirements:

1. The Permittee shall use electronic data deliverable (EDD) reporting when required by the Administrator.
2. Records of monitoring information shall include:
  - i. The date, exact place, and time of sampling or measurements;
  - ii. The initials or name(s) of the individual(s) who performed the sampling or measurements;
  - iii. The date(s) analyses were performed;
  - iv. The time(s) analyses were initiated;
  - v. The initials or name(s) of the individual(s) who performed the analyses;
  - vi. References and written procedures for the analytical techniques or methods used;
  - vii. The results of such analyses, including the bench sheets, laboratory reports, instrument readouts, computer disks or tapes, etc., used to determine these results.
3. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or the approved Sampling and Analysis Plan.
4. All samples reported to the Administrator shall be unfiltered unless filtered samples are specified for the given analysis; turbidity should not exceed 20 NTUs. Samples shall be collected such that they are representative of produced water without further treatment. Sampling frequency may be reduced with the Administrator's approval. The constituents shall be analyzed by the methods listed in **Table 6**.
5. The Permittee shall report any noncompliance which may endanger health or the environment to the Administrator of the Water Quality Division within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. The report shall include:
  - i. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable groundwater of the state;
  - ii. 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;
  - iii. A written submission shall be provided to the Administrator of the Water Quality Division within five (5) days of the time the Permittee 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.

6. The Permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted.
7. The Permittee shall notify the Administrator in writing at the earliest opportunity, and verbally no less than 48 (forty-eight) hours prior to conducting the mechanical integrity tests for each injection well, so that a joint field inspection may be coordinated between both parties.
8. Sample collection of groundwater shall be of such frequency and of such variety (season, time, location, depth, etc.) to properly describe the groundwater, and shall be accomplished by the methods and procedures described in the U. S. Environmental Protection Agency manual RCRA Groundwater Monitoring Technical Enforcement Guidance Document, September, 1986, unless alternate methods and procedures are approved by the Administrator.
9. Analysis of all samples shall be accomplished pursuant to Chapter 8, Water Quality Rules and Regulations, Sections 7 and 8.

b. Groundwater Monitoring Requirements:

1. Groundwater samples from a statistically significant, spatially distributed number of Phase I and Phase II wells shall be collected by the permittee in order to identify a statistically significant change in water quality within each coal seam. Twenty (20) wells<sup>1</sup> shall be sampled each quarter from producing and/or idle wells from each of the four (4) coal seams during each project phase (i.e. eighty (80) samples total each quarter from Phase I), unless there are fewer than twenty wells per coal seam and/or phase; in which case 100% of the wells in the coal seam and/or phase shall be sampled. Samples shall be collected according to the schedule established in **Table 6** and for all constituents and parameters listed in **Table 6**. Quarterly sampling shall not occur at the same wells each quarter, unless the wells sampled in the previous quarter are the only wells active during the present quarter. Samples shall also be as widely distributed spatially as possible each quarter. Sampling results shall be reported quarterly and in the annual water quality report described in Part I.c. of this permit. Failure to perform and report analyses in accordance with the prescribed schedule and method is a violation of this permit.

<sup>1</sup>Minimum sample size needed to adequately account for variability in natural groundwater quality, as per *EPA Unified Guidance "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities"*, March, 2009. (EPA 530/R-09-007)

2. The **Upper Tolerance Limits (UTLs)** established in **Table 6** shall not be exceeded for any constituent in more than 5% of samples (excluding QA/QC samples) taken from an individual coal seam and/or project phase, as appropriate (see Table 6) during any single sampling event. Should more than 5% of samples (excluding QA/QC samples) taken during any single sampling event (monitoring period) exceed any UTL value, it is a violation of this permit and shall require notification under Section I.a. of this permit. Refer to Section E. of this permit. The WDEQ recognizes that exceedance of UTL values in more than 5% (five percent) of samples collected during one quarter (excluding QA/QC samples) may represent a statistical change in

water quality, however, the WDEQ may consider any single exceedance of a UTL to be a violation of the permit.

3. The **Upper Prediction Limits (UPLs)** established in **Table 6** shall not be exceeded in any single sample. Any exceedance of a UPL value is a violation of this permit and shall require notification under Section I.a. of this permit. Refer to Section E of this permit.
4. Should the permittee obtain additional baseline data in addition to the permit application data that was originally utilized in establishing background concentrations, injectate limitations, and produced water limitations for this facility, the permittee may petition the UIC Program to modify the UTL values established in **Table 6**. Permit modifications of this type will require an additional public notice process if the proposed UTL values are less stringent than those originally established.
5. The permittee may, once two years' worth of sampling data have been collected and reported, petition the Administrator to reduce the frequency of monitoring for any routinely-monitored constituent, or to remove any constituent from the list of routinely-monitored constituents for this facility. Under no circumstances may the permittee reduce monitoring for any constituent, or discontinue monitoring for any constituent without modification of this permit and the Administrator's express written consent.

**Table 6: (Injectate and Groundwater Sampling Schedule)**

Sampling Schedule	Constituent Analyzed	EPA Analytical Method	Coal Seam(s) and Phase(s)	Groundwater Permit limit or UTL	Injectate Permit limit	Groundwater UPL
Quarterly (grab) Jan 1 – Mar 31 Apr 1 – Jun 30 Jul 1 – Sep 30 Oct 1 – Dec 31	Alkalinity (Dissolved Inorganic Carbon)	A2320 B	All	NA	NA	NA
	Ammonia	350.1 350.2 350.3	Anderson I, Wall I & II	1.01 <sup>2</sup>	NA	1.20 <sup>3</sup>
			Anderson II, Lower Canyon I & II	1.25 <sup>2</sup>	NA	1.51 <sup>3</sup>
			Canyon II	1.56 <sup>2</sup>	NA	1.72 <sup>3</sup>
			Canyon I	1.74 <sup>2</sup>	NA	2.43 <sup>2</sup>
	Bicarbonate	A2320 B	All	NA	NA	NA
	Calcium	200.7	All	NA	NA	NA
	Carbonate	A2320 B	All	NA	NA	NA
	Chloride	300	All	250 <sup>1</sup>	250 <sup>1</sup>	250 <sup>1</sup>
	Conductivity	Field	All	NA	NA	NA

Sampling Schedule	Constituent Analyzed	EPA Analytical Method	Coal Seam(s) and Phase(s)	Groundwater Permit limit or UTE	Injectate Permit limit	Groundwater UPL
Quarterly (grab) Jan 1 – Mar 31 Apr 1 – Jun 30 Jul 1 – Sep 30 Oct 1 – Dec 31	Carbon 13 Isotope	Varies	All	NA	NA	NA
	Copper	200.7, 200.8, 200.9	All	1.0	NA	1.0
	Iron	200.7, 200.9	Lower Canyon I & II	0.74 <sup>2</sup>	NA	0.94 <sup>3</sup>
			Canyon I & Wall I & II	1.14 <sup>2</sup>	NA	1.92 <sup>3</sup>
			Anderson I & II	1.74 <sup>2</sup>	NA	2.69 <sup>3</sup>
			Canyon II	0.95 <sup>2</sup>	NA	1.17 <sup>2</sup>
	Magnesium	200.7	All	NA	NA	NA
	Manganese	200.7, 200.8, 200.9	Lower Canyon I & II	0.06 <sup>2</sup>	NA	0.08 <sup>3</sup>
			Canyon I & II, Wall I & II	0.07 <sup>2</sup>	NA	0.08 <sup>3</sup>
			Anderson I & II	0.09 <sup>2</sup>	NA	0.12 <sup>3</sup>
	Nickel	200.7, 200.8, 200.9	All	0.7 <sup>1</sup>	0.7 <sup>1</sup>	0.7 <sup>3</sup>
	Nitrate	300	All	10	10	10 <sup>1</sup>
	Nitrite	300	All	1 <sup>1</sup>	1 <sup>1</sup>	1 <sup>1</sup>
	pH	Field	All	>6.5 & <8.5 <sup>1</sup>	>6.5 & <8.5 <sup>1</sup>	>6.5 & <8.5 <sup>1</sup>
	Potassium	200.7	All	NA	NA	NA
	Residual Sodium Carbonate	Calculation	All	NA	NA	NA
Sodium	200.7	All	NA	NA	NA	
Sulfate	300	All	250 <sup>1</sup>	250 <sup>1</sup>	250 <sup>1</sup>	
Hydrogen Sulfide	A4500 S-D	All	0.21 <sup>1</sup>	0.21 <sup>31</sup>	0.21 <sup>3</sup>	

Sampling Schedule	Constituent Analyzed	EPA Analytical Method	Coal Seam(s) and Phase(s)	Groundwater Permit limit or UTL	Injectate Permit limit	Groundwater UPL
Quarterly (grab) Jan 1 – Mar 31 Apr 1 – Jun 30 Jul 1 – Sep 30 Oct 1 – Dec 31	Total Dissolved Solids	A2540 C	Wall I & II	835 <sup>2</sup>	1600 <sup>1</sup>	1022 <sup>3</sup>
			Anderson I & II, Canyon I & II, Lower Canyon I & II	1083 <sup>2</sup>	1600 <sup>1</sup>	1217 <sup>3</sup>
	Total Organic Carbon	A5310C	All	NA	NA	NA
	Turbidity	Field	All	NA	NA	NA
	Zinc	200.7, 200.8	All	5 <sup>4</sup>	5 <sup>1</sup>	5 <sup>1</sup>
	Injection Volume	Flow meter	NA	NA	see <b>Tables 1A and 1B</b> (barrels/day/well)	NA
	Injection Pressure	Gauge	NA	NA	15 psig	NA
Produced Water Volume	Flow meter	NA	Report (barrels/day/well)	NA	NA	

<sup>1</sup>Limit based on *Wyoming Water Quality Rules and Regulations, Chapter 8, Table I.*

<sup>2</sup>Limit based on upper tolerance limit calculation.

<sup>3</sup>Limit based on upper prediction limit calculation.

<sup>4</sup>Limit based on EPA's Drinking Water Equivalent Level

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

6. All samples collected to meet groundwater monitoring requirements shall be analyzed by an independent, third-party EPA certified laboratory.

c. Groundwater monitoring reporting requirements:

1. The results (laboratory results) of groundwater monitoring shall be reported quarterly in the UIC GEM database, and copies of laboratory reports uploaded to GEM within forty-five (45) days of the sample date.
2. The Permittee shall provide two (2) annual water quality summary reports to the Administrator, one hard copy and one in a digital format. The reports shall be separate and

specific from the SEO-permitted domestic use wells and injectate reports described in Part I.e. and Part J.b. of the permit. The reports shall contain the following minimum information:

- i. well names;
  - ii. name of coal seam sampled;
  - iii. API numbers;
  - iv.  $\frac{1}{4}$   $\frac{1}{4}$ , Section, Township, Range location of each production well;
  - v. water quality sample date;
  - vi. water quality analysis date;
  - vii. detection limits;
  - viii. EPA methods;
  - ix. water quality analytes (sorted alphabetically);
  - x. water quality results (mg/L), including copies of the laboratory reports;
  - xi. produced water volumes;
  - xii. injection rates and volumes;
  - xiii. dates describing when wells were injecting, producing, or idle;
  - xiv. permit limits; and
  - xv. laboratory reports and data sheets.
3. Reports shall include explanations of permit compliance or non-compliance, including an analysis of the percentage of wells sampled (excluding QA/QC samples) that exceed UTLs for each constituent.
  4. Should a UTL or UPL value be exceeded, the report shall also describe the reporting mechanisms that were undertaken, and the permittee's investigation into the causes of the exceedances and efforts to prevent such exceedances in the future.
  5. Reports shall include time-series graphs of analyte concentrations on the X-axis and sample dates on the Y-axis with plots of permit limits superimposed on the X-axis.
  6. Reports shall include test data and analysis of all pressure falloff and MIT tests completed during the reporting period. Other report formats may be submitted with prior approval from the Administrator.
  7. If a well is dry at the time of sampling, the permittee shall report the well as dry.
- d. SEO-permitted domestic water well monitoring requirements:
1. All owners of SEO-permitted domestic use wells within the area of review, and outside of the area of review but within  $\frac{1}{2}$  (one-half) mile of an injection or production well shall be notified by the permittee within thirty (30) days of issuance of this permit, and offered the opportunity to have the permittee or the permittee's representative collect and complete laboratory analyses of ground water samples from the owner's well.
  2. Within thirty (30) days of receipt of written request from the well owner(s), the Permittee shall collect an initial sample from the owner's well for laboratory analysis, and semi-annually thereafter, in accordance with **Table 7**.

**Table 7 (Domestic Use Well Monitoring Schedule)**

Sampling Schedule	Constituent Analyzed	EPA Analytical Method
Semiannual (grab) Jan 1 – June 30 Jul 1 – Dec 31	Alkalinity (Dissolved Inorganic Carbon)	A2320 B
	Ammonia	350.1, 350.2, 350.3
	Arsenic	200.7, 200.8, 200.9
	Bicarbonate	A2320 B
	Calcium	200.7
	Carbon 13 Isotope	Varies
	Carbonate	A2320 B
	Chloride	300.0
	Conductivity	Field
	Iron	200.7, 200.9
	Magnesium	200.7
	Manganese	200.7, 200.8, 200.9
	Nickel	200.7, 200.8, 200.9
	Nitrate	300.0
	Nitrite	300.0
	pH	Field
	Potassium	200.7
	Residual Sodium Carbonate	Calculation
	Selenium	200.7, 200.8, 200.9
	Sodium	200.7
Sulfate	300.0	
Hydrogen Sulfide	A4500 S-D	
Total Dissolved Solids	300.0	
Total Organic Carbon	5310C	
Turbidity	Field	
Zinc	200.7, 200.8	

3. Owners of SEO-permitted domestic wells may request in writing to not participate in groundwater sampling and analysis, or to discontinue groundwater sampling or analysis. In the event that an owner of an SEO-permitted domestic well denies access to an SEO-permitted domestic well at any time, the permittee will notify the Administrator and provide documentation that access to an SEO-permitted domestic well has been denied.
4. Samples from all owners of SEO-permitted domestic wells who have opted to participate in the groundwater sampling will be collected over the duration of the permit.
5. All samples collected from domestic use water supply wells shall be analyzed by an independent, third-party EPA certified laboratory.
6. Owners of domestic use water supply wells in the area of review permitted by the SEO after the date of issuance of this permit will be afforded the same opportunity for sample collection and analysis as existing well owners described in this section.

e. SEO-permitted domestic water well reporting requirements:

1. The results of SEO-permitted domestic well sampling (laboratory results) shall be reported quarterly in the UIC GEM database, copies of laboratory reports uploaded to GEM, and copies of laboratory reports provided to the well owner(s) within forty-five (45) days of the sample date.
2. The Permittee shall provide two (2) annual water quality summary reports to the Administrator, one hard copy and one in a digital format.
3. The reports shall be separate and specific from the groundwater monitoring and injectate reports described in Part I.c. and Part J.b. of the permit. The reports shall include the following:
  - i. A list of all SEO-permitted water supply wells that were sampled during the semiannual reporting period.
  - ii. Contact information for each of the SEO-permitted well owners, including SEO-permitted well owner name, address, and telephone number.
  - iii. The results of water quality analyses, including:
    - A. water quality sample date;
    - B. water quality analysis date;
    - C. detection limits;
    - D. EPA methods;
    - E. water quality analytes (sorted alphabetically); and
    - F. water quality results (mg/L), including copies of the laboratory reports.
  - iv. Well information, including:
    - A. well depths, if available publicly;
    - B. SEO permit number;
    - C. well name;
    - D.  $\frac{1}{4}$   $\frac{1}{4}$ , Section, Township, Range;
    - E. completed formation and/or perforated intervals, if available publicly; and
    - F. water levels, if available publicly.
  - v. Other information, including copies of all written documentation described in this section:
    - A. landowner notification letters;
    - B. landowner responses;
    - C. laboratory reports;
    - D. denial of access to any well; and
    - E. requests for cessation of sample collection from landowners.

- vi. Analysis of sampling results, including:
  - A. A comparison of the current semiannual reporting period's results to previous results for each SEO-permitted well sampled.
  - B. If a well that has been previously sampled was not sampled during the current semiannual reporting period, a description of why the well was not sampled.
4. The Permittee shall immediately notify the Administrator of potential water quality issues presented by a valid State Engineer Office (SEO) domestic use water well permit holder within the area of review (**Table 5**) or within ½ (one-half) mile of an injection or production well listed in either **Table 2** or **Table 3** of this permit.
5. The Permittee shall immediately notify the Administrator and SEO water well permit holder of potential water quality issues encountered with any SEO-permitted domestic use water well.

**J. Requirements for Monitoring the Discharge**

“Injectate” is a mixture of amendments consisting of vitamins and minerals, multi-nutrients, cell vitality enhancers, and produced water. For the purposes of this permit, “injectate” does not refer to amendments that have not been diluted with produced water.

a. Injectate sampling requirements:

1. The Permittee shall meter volumes of all injectate emplaced into each well.
2. For the purposes of this permit, a “batch” is defined as the quantity of material prepared or required for one operation, as in “mixing a batch of cement.”
3. The permittee must report the specific vitamins and minerals, multi-nutrients, cell vitality enhancers, and produced water used to make up each injectate batch, the amounts or volumes of each amendment, the concentration of each amendment in the injectate, and the rate of injectate injection into the well.

Due to the nature of some of the amendments, it is acceptable to calculate concentrations based upon known volume or weight of these amendments per unit volume of “make-up” or produced water and report these values to the Administrator. The permittee is required to describe how each amendment's concentration in the injectate was determined.

4. Mixing of amendments and produced water occurs at this facility over a period of time from amendments that are delivered to the wellhead in a tank. The amendments in the tank are gradually added, via pump, to produced water collected from other wells at the facility.

The injectate sampling required by this permit shall occur at a sample withdrawal port located downstream of the injection port, and is to be representative of the amendments and produced water.

Injectate sampling shall occur once per quarter as long as injection is occurring at an individual well from a single tank of amendments, and each time a new tank of amendments is delivered to a wellhead.

For example, if well "A" has been injecting from a single tank of amendments for 6 months, two quarterly samples, at a minimum, must be collected, analyzed, and reported to the Administrator. If, in the sixth month, a new tank of amendments is delivered to the wellhead, a second sample, representing the new tank of amendments, should be collected, analyzed, and reported to the Administrator for that quarter (monitoring period).

The Permittee is required to sample each batch of injectate for all constituents listed in **Table 6**. Sample results and laboratory reports shall be reported and uploaded quarterly into the UIC GEM database within forty-five (45) days of the sample date, and in the annual water quality report described in Part J.b. of this permit.

5. Injectate quality shall not exceed **injectate** limits established in **Table 6** during any single sampling event at the point of injection for any constituent.
  6. For injectate that is mixed in batches and emplaced into multiple wells at the same time, only one injectate sample per batch is required to be collected and analyzed for all constituents listed in **Table 6**. In such cases, the Permittee must report which wells received which injectate batch in the quarterly report for that monitoring period, and in the annual water quality report.
  7. All samples reported to the Administrator shall be unfiltered unless filtered samples are specified for the given analysis; turbidity shall not exceed 20 NTUs unless otherwise approved by the Administrator. Samples shall be collected such that they are representative of injectate without further treatment.
  8. All samples collected to meet injectate sampling requirements shall be analyzed by an independent, third-party EPA certified laboratory.
- b. Injectate reporting requirements:
1. The results (laboratory results) of injectate sampling shall be reported quarterly in the UIC GEM database, and copies of laboratory reports and analyses uploaded to GEM within thirty (30) days of the sample date.
  2. The Permittee shall provide two (2) annual water quality summary reports to the Administrator, one hard copy and one in a digital format. Amendment reports will be held confidential by the Administrator. The reports shall be separate and specific from the SEO-permitted domestic use wells and groundwater reports described in Part I.c. and Part I.e. of the permit.
  4. The reports shall contain the following minimum information:
    - i. injection well names;
    - ii. name of coal seam being injected into;
    - iii. API numbers;
    - iv.  $\frac{1}{4}$   $\frac{1}{4}$ , Section, Township, Range location of each injection well;

- v. injectate quality sample date;
- vi. injectate quality analysis date;
- vii. detection limits;
- viii. EPA methods;
- ix. injectate quality analytes (sorted alphabetically);
- x. injectate quality results (mg/L);
- xi. injection volumes;
- xii. injection pressures;
- xiii. injection rates;
- xiii. beginning and end dates of all well nutrient restorations;
- xiv. injectate batch makeup information as described in Part J. a. 2 of this permit, and;
- xvi. permit limits.

#### **K. Test Procedures**

All samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity and in accordance with an approved Sampling and Analysis Plan. All required analyses shall be conducted in compliance with Wyoming Water Quality Rules and Regulations, Chapter 8, Section 7.

#### **L. Records and Reports**

The Permittee shall furnish to the Administrator within a specified time any information which the Administrator may request relating to the operation of the facility, including copies of records required to be kept by this permit. The Permittee shall retain copies of all records and reports required by this permit for a period of three (3) years following permanent well abandonment. After that time, those records shall be delivered to the Administrator for disposal or archive at his discretion. Reports of compliance or noncompliance with, and any progress reports on, interim and final requirements contained in any compliance schedule shall be submitted no later than thirty (30) days following each schedule date.

Confirmed noncompliance resulting in the migration of injected fluid into any zone outside the permitted receiver shall be reported to the Administrator within twenty-four (24) hours, and a written submission (via certified mail) shall be provided within five (5) days of the time the Permittee becomes aware of the excursion. The written submission shall contain: a description of the noncompliance; 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 a list of the steps taken or planned to reduce, eliminate, and prevent the recurrence of the noncompliance.

Confirmed noncompliance not already reported under this section shall be reported at the time monitoring reports are submitted. The reports shall contain the same information as required by the paragraph above.

#### **M. Permit Actions**

This permit is issued for a period of ten (10) years. Injection may occur only during the first five (5) years of the permit.

If the permittee wishes to continue injection after the five (5) year injection duration of this permit, the permittee shall apply to the Administrator and obtain a new permit prior to the expiration date of this permit. An expired permit continues in effect until a new permit is issued or the permit is terminated by the Administrator. It shall not be a defense for the Permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. The filing of a request by the Permittee, or at the instigation of the Administrator, for permit modification, revocation, termination, or notification of planned changes or anticipated noncompliance shall not stay any condition of this permit.

After notice and opportunity for a hearing, a permit may be modified, suspended or revoked in whole or part during its term for cause which includes, but is not limited to any of the following:

1. Violation of this permit;
2. Obtaining a permit by misrepresentation of facts in the application; or
3. Failure of the tubing, casing, cement, or confining layers.

This permit will be reviewed at least once every five (5) years, and may be reviewed more frequently. A permit may be modified at any time as may be required, including for conformity with changes in regulations or standards which occur after the permit was issued. A permit may be modified in whole or part in order to apply more or less stringent standards; or prohibitions for toxic or other substances present in the Permittees' discharge as may be ordered by the Environmental Quality Council.

#### **N. Mechanical Integrity**

Mechanical integrity shall be maintained continuously.

This facility is different from most CBM injection facilities in that the injectate and the formation water are the same. In addition, the Permittee does not plan to inject above a surface pressure of 15 psig. Many of the proposed injection wells are pre-existing CBM production wells originally permitted by the Wyoming Oil and Gas Conservation Commission, and were not constructed to handle high-pressure re-injection. Most of the injection wells in this project are not strictly injection wells, and may rotate through several cycles of production and injection in their lifetimes. The existing wells are rated to handle a maximum injection pressure of 300 psig, which is below the 700 psig routinely required for mechanical integrity testing of wells permitted via General Permits in the Powder River Basin. Finally, the Anderson, Wall, Canyon, and Lower Canyon coal seams (receiving formations) may have been significantly dewatered during the past 10-15 years from CBM production in the project area. As a result, reservoir pressures in the Anderson, Wall, Canyon, and Lower Canyon are generally low, which allows for the injection of large volumes of water under gravity flow and hydrostatic pressures.

The following Part I mechanical integrity tests are required for each injection well on a five (5) year basis, as long as injection is occurring during the life of this permit (once in 2011 and once in 2016) as follows:

1. The Permittee may not exceed 15 psig (measured at the surface) injection pressure in the wellbores (unless for testing purposes). The Permittee shall pressure test the casing before injection and at least once every five (5) years. The casing shall be pressure tested up to an

indicated surface pressure of 100 psig and held for 30 minutes. A passing test shall show that there is less than 10% pressure loss after 30 minutes at 100 psig. The Administrator may eliminate the requirement for pressure testing if he/she determines wireline methods are deemed adequate.

#### **O. Abandonment or Conversion to Water Wells**

##### General Requirements:

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 in the original application for coverage under this 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.
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.
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 Office's permit to document that it has been converted to a water well. A copy of this permit shall be submitted to the Administrator as evidence that the well has been converted.

#### **P. Duties of the Permittee**

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 alternation or addition. The Permittee shall furnish the Administrator within a reasonable time any information which the Administrator may request to determine whether cause exists for modifying, revoking, or reissuing, or terminating this permit, or to determine compliance with this permit; and to furnish to the Administrator upon request, copies of records required to be kept by this permit. 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 any permit conditions shall be reported to the Administrator through the submission of a new or amended permit application. The Permittee shall report all instances where he becomes aware that he failed to submit any relevant facts in the permit application, or where he submitted incorrect information in a permit application or in any report to the Administrator, and shall promptly submit such facts or information.

#### **Q. Signatories Requirement**

All reports filed in conjunction with this permit shall contain 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 gather and evaluate 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."

All reports required by this permit and other requested information shall be signed as follows:

For a corporation – by a principal executive officer of at least the level of vice-president;

For a partnership or sole proprietorship – by a general partner or the proprietor, respectively;

For a municipality, state, federal, or other public agency – by either a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above.

A person is a duly authorized representative only if:

1. The authorization is made in writing by one of the prescribed principals;
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
3. The written authorization is submitted to the Administrator.

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 the new authorized representative.

## **R. Noncompliance**

The Permittee shall comply with all conditions of the permit. Any permit noncompliance constitutes a violation of Wyoming Water Quality Rules and Regulations, Chapter 16 and is grounds for enforcement action, permit termination, revocation, or modification. Noncompliance resulting in a violation shall be reported to the Administrator orally within twenty-four (24) hours, and a written submission shall be provided within five (5) days of the time the Permittee becomes aware of the violation. The written report shall contain the sections specified in Section K of this permit. Any permit noncompliance constitutes a violation of this permit.

The filing of any request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

**S. Permit Transfer**

Any transfer of this permit shall be accomplished by the submission of the proper forms for permit transfer to the Administrator. Transfer of this permit must first be approved by the Administrator and the Director. No transfer shall be approved unless the proposed Permittee agrees to bring any and all noncompliance issues into compliance with this permit. The Permittee is alone responsible for the operation of the facility covered by this permit. Sale of the facility and subsequent operation of this facility by another is a violation of this permit unless a transfer of this permit has first been accomplished.

**T. Property Rights**

This permit does not convey any property rights of any sort or any exclusive privilege. This permit does not authorize injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

**U. Severability**

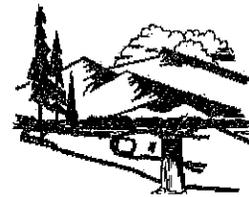
Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation.

**END OF PERMIT**



# Department of Environmental Quality

*To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.*



Matthew H. Mead, Governor

John Corra, Director

January 6, 2012

Mr. Brian Cree  
Patriot Energy Resources, LLC  
500 Corporate Circle, Suite C  
Golden, Colorado 80401

RE: Patriot Energy Resources, LLC Coal Bed Methane Injectors  
Final Permit 11-207, Class V Miscellaneous Injection  
Campbell County, Wyoming

Dear Mr. Cree:

Attached please find one copy of the Class V permit for the above referenced facility.

The permit application, draft permit, final permit, public notice, and report forms are available for review on the GEM website <https://gem.trihydro.com>. Due to the large volume of monitoring reports for this facility it is required that Patriot Energy Resources fill them out online in addition to the paper reports required in the permit.

The underground injection control program was promulgated to prevent serious problems caused by direct discharges to the groundwater. Those problems included groundwater pollution leading to contamination in domestic water wells and serious health affects caused by exposures to toxic substances and water borne pathogens. Your cooperation with our program is sincerely appreciated.

If you have any questions, feel free to contact me at (307) 777-5623 or [john.passehl@wyo.gov](mailto:john.passehl@wyo.gov).

Sincerely,

John A. Passehl P.G.  
Geology Supervisor  
Water Quality Division

JP/KS/rm/12-0015





# Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead, Governor

John Corra, Director

October 20, 2011

**CERTIFIED**

Wendy Cheung  
USEPA, Region VIII  
1595 Wynkoop Street  
Denver, Colorado 80202-1129

RE: Patriot Energy Resources, LLC Coal Bed Methane Injectors  
Draft Permit 11-207, Class V Miscellaneous Injection  
Campbell County, Wyoming

Dear Ms. Cheung:

Patriot Energy Resources, LLC has submitted an application for the injection of coal bed methane (CBM) produced water into 300 injection wells. The permittee is requesting a ten (10) year permit. The permittee will inject nutrient restorations and recirculate CBM produced waters in order to enhance methane production for five (5) years, followed by five (5) years of post-injection groundwater monitoring and reporting. The receiving geologic formation is the Tertiary Paleocene Fort Union Formation. The permittee is proposing to produce the CBM water from the Anderson, Wall, Canyon, and Lower Canyon coal seams, periodically add a small amount of "nutrient enhancements" designed to support microbial production of methane gas, combine the produced waters, and then re-inject the water back into any of these coal seams. The project area is located in Townships 52 and 53, Ranges 72, 73 and 74. The Wyoming Department of Environmental Quality (WDEQ) intends to issue an underground injection control permit for the facility.

The draft permit, public notice, and deadline for comments will be posted in the near future at <http://deq.state.wy.us/wqd/events/index.asp> for you and the public to review. Additional application material provided by the applicant is available on DEQ's GEM website at <https://gem.trihydro.com>, which requires registration.

If you have any questions, feel free to contact me at (307) 777-5623 or [john.passehl@wyo.gov](mailto:john.passehl@wyo.gov). Comments should be submitted in writing to the UIC Program in the Water Quality Division within the next 45 days.

Sincerely,

John A. Passehl P.G.  
UIC Geological Supervisor  
Water Quality Division

JP/rm/11-0952

Attachment: Draft Permit





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 16, 2011

Town of Riverside  
Ron Bedwell, Mayor  
P.O. Box 657  
Riverside, WY 82325

RE: Town of Riverside 2011 Sanitary Sewer Improvements;  
Application No. **11-208**, Carbon County

Dear Mr. Bedwell:

The above application for coverage under General Permit to Construct, Install, Modify, or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems is described as replacing approximately 2100 feet of 8 inch PVC sewer main, installation of a flow meter to existing lift station, and installation of seven 48 inch manholes; Section 1, T14N, R84W and Section 6, T14N, R83W; Carbon County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install, or modify the sewage collection system in accordance with Chapter 11, Section 9 of the Water Quality Division Rules and Regulations, the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by June 16, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. **11-208** in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

Sincerely,

Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

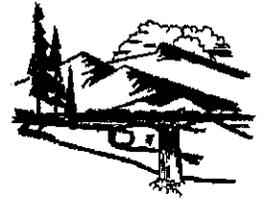
RRC/bb/11-0569

cc: IPS, Cheyenne  
Ken Schwerdt, PMPC Civil Engineers, P.O. Box 370, Encampment, WY 82327





# Department of Environmental Quality



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Matt Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 20, 2011

Kevin Williams  
QEP Energy Company  
P.O. Box 45601  
Salt Lake City, UT 84145-0601

RE: QEP Office Building - Septic System and Holding Tank - Permit Number 11-209, SW ¼ NE ¼, Section 15, T33N, R109W, Lat: 42.83, Long:109.85, Sublette County

Dear Mr. Williams:

The above application for coverage under General Permit to Construct a wastewater disposal system consisting of a 3000 gallon septic tank with leach field to serve an 80 person office and a second wastewater disposal system consisting of a 1000 gallon septic tank and leach field to serve a 3 person shop and a 3000 gallon holding tank to contain shop floor drain wastewater in accordance with Chapter 3, Section 7 and Chapter 25 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, the facility in accordance with the general permit and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the General Permit. These General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage. The General Permits can be found under the Water Quality Division Water and Wastewater Program, Engineering and Technical Services at :

[http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

If you have any questions, please contact me at 307-332-3144.

Sincerely,

Mark Baron, P.E.  
Southwest District Engineer  
Water Quality Division

PDF to Cheyenne  
Brian Gray, P.E., WLC Engineering, P.O. Box 1519, Pinedale, WY 82941  
Keith Raney, P.O. Box 722, Pinedale, WY 82941

Page 1 of 1





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 24, 2011

Terry Bison Ranch Cabin and RV Expansion  
Daniel Thiel, President  
51 I-25 Service Road  
Cheyenne, WY 82007

RE: Terry Bison Ranch  
Application No. **11-210**, Laramie County

Dear Mr. Thiel:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as installation of approximately 995 feet of 3 inch PVC water main, eight yard hydrants with backflow devices, installation of approximately 505 ft of 8 inch PVC sanitary sewer main, installation of five new 48 inch manholes, six sanitary sewer services(cabins) , eight dump connections for RV's , Section 16 and Section 21, T12N R 67W; Laramie County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the water distribution system in accordance with Chapter 12, Section 14 of the Water Quality Division Rules and Regulations, the sewage collection system in accordance with Chapter 11, Section 9 of the Water Quality Division Rules and Regulations, and both systems in accordance with the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by June 24, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. **11-210** in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

Sincerely,

Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/rm/11-0602

Enclosure: Certificate of Completion

cc: IPS, Cheyenne

Erin Gates, Benchmark Engineers, 1920 Thomes Ave., Suite 620, Cheyenne, WY 82001

Herschler Building • 122 West 25th Street • Cheyenne, WY 82002 • <http://deq.state.wy.us>

ADMIN/OUTREACH (307) 777-7758 FAX 777-7682	ABANDONED MINES (307) 777-8145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5816	INDUSTRIAL SITING (307) 777-7369 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 777-5864	SOLID & HAZ. WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 11, 2011

Monte Hubbard  
386 Slater Road  
Wheatland, Wyoming 82201

RE: Monte Hubbard Domestic Septic Sewer System,  
Location: NE¼ NW¼ Section 20, T22N, R66W,

Application No. **11-211**  
Platte County

Dear Mr. Hubbard:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of a 1000 gallon, two compartment concrete septic tank and about 128 feet of chamber type leachfield divided into two equal length trenches of 64 feet each for a 3 bedroom house in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the small wastewater system in accordance with Chapter 25 of the Water Quality Division Rules and Regulations, the general permit, the condition listed below, and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit. Additionally, the following project specific condition also applies:

Septic Tank Clean-Out Riser Requirement - Either a 6 inch diameter clean-out riser or the manway from **each compartment of the septic tank** must be extended to the ground surface.

The approval granted under this Notification Of Coverage and the General Permit shall expire on July 11, 2013. Please reference Application Number 11-211 in any future correspondence.

If you have any questions, please contact me at [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov) or (307) 777-6183.

Sincerely,

Ronald L. Ewald  
Assistant Southeast District Engineer  
Southeast District, Water & Wastewater Section  
Water Quality Division

RLE/rm/11-0643

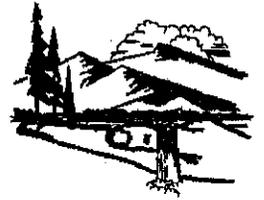
Enclosures: GENERAL PERMIT - Small Wastewater Facility  
Certificate of Completion

cc: IPS, Cheyenne  
Platte County Planning Office, Dennis Becker, PO. Box 728, Wheatland, WY 82201





# Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matt Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 10, 2011

Ronald G. Vaughn  
EP-RSAL, LLC  
1215 Monaco Parkway  
Denver, CO 80220

RE: Rock Springs - Deer Trail Assisted Living Complex Sewer Main Project - Permit Number 11-212R, Reagan Summit Subdivision , Long: 109.2553, Lat: 41.5952, Sweetwater County

Dear Mr. Vaughn:

The above application for coverage under General Permit to Construct the extension of a sewage collection system consisting of about 1064 linear feet of 8-inch PVC sewer main to serve an Assisted Living Complex and about 332 linear feet of 4-inch PVC sewage force main to serve Lot 2 accordance with Chapter 3, Section 7, Chapter 11, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, the facility in accordance with the general permit and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the General Permit. These General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage. The General Permits can be found under the Water Quality Division Water and Wastewater Program, Engineering and Technical Services at:

[http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

If you have any questions, please contact me at 307-332-3144.

Sincerely,

Mark Baron, P.E.  
Southwest District Engineer  
Water Quality Division

PDF to Cheyenne  
Patricia Kroetch, P.E., North Star Design, Inc., 700 Automation Drive, Windsor, CO 80550



PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

PERMIT NO. **11-214**  
SPECIAL CONDITIONS

BJ Services, Rock Springs Facility

This permit hereby authorizes the applicant:

BJ Services (Baker Hughes)  
2929 Allen Parkway, Suite 2100  
Houston, TX 77019

to construct, install or modify groundwater monitoring well(s) according to the procedures and conditions of the application number **11-214**. The facility is located in NE, Section 22, T19N, R105W in the county of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of five (5) years from the date of issuance of this permit. This permit expires June 1, 2016.

The issuance of this permit confirms that the Department of Environmental Quality (DEQ) has evaluated the application submitted by the permittee and determined that it meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the engineer's design are the responsibility of the permittee, owner, and/or operator.

Granting this permit does not imply that the Wyoming DEQ guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements. Compliance with discharge standards remains the responsibility of the permittee.

Nothing in this permit constitutes an endorsement by the DEQ of the construction or the design of the facility described herein. This permit verifies only that the submitted application meets the design and construction standards imposed by the DEQ statutes, rules and regulations. The DEQ assumes no liability for, and does not in any way guarantee or warrant the performance or operation of the permitted facility. The permittee, owner and/or operator are solely responsible for any liability arising from the construction or operation of the permitted facility. By issuing this permit, the state does not waive its sovereign immunity.

The permittee shall allow authorized representatives from the DEQ, Water Quality Division, to enter and inspect any property, premise or place on or at which the facility is located or is being constructed or installed for the purpose of investigating actual or potential sources of water pollution, and for determining compliance or non-compliance with any rules, regulations, standards, permits or orders.

The permittee shall notify representatives from the DEQ, Water Quality Division when the construction commences and give an estimate of completion for the project. The authorized representative in your area can be contacted at the following address: WDEQ, Water Quality Division, 510 Meadowview Drive, Lander, Wyoming 82520; telephone (307) 335-6980; FAX (307) 332-7726.

Nothing in this permit shall be construed to preclude the institution of any legal action or other proceeding to enforce any applicable provision of law or rules and regulations. It is the duty of the permittee, owner and/or operator to comply with all applicable federal, state and local laws or regulations in the exercise of its activities authorized by this permit.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit.

This permit does not relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

In carrying out its activities authorized by this permit, the permittee, owner and/or operator shall comply with all of the following permit conditions:

1. After the monitoring well(s)/piezometer(s) have fulfilled their useful purpose, they shall be abandoned according to procedures specified in Chapter 26, Section 11 of Wyoming Water Quality Rules and Regulations. In addition, borings in public use areas, particularly paved streets and alleys, shall be abandoned in accordance with City and/or Highway Department requirements. No monitoring well/piezometer shall be abandoned without prior approval from the Water Quality Division.

2. WDEQ/WQD personnel shall be given at least two (2) weeks notice prior to the installation of groundwater monitoring wells/piezometers and sample collection so that they may be on site if deemed necessary.

3. The applicant is responsible for obtaining any Permits required by the State Engineer's Office (777-7354).

4. The results of any other analyses conducted on soil or water removed from these wells/piezometers or boreholes shall be provided to the department as soon as they are available.

5. **Environmental Monitoring Program for Groundwater of the State:**

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity and performed in accordance with WDEQ or EPA approved Standard Procedures or Quality Assurance/Quality Control (QA/QC) Plan.

b. The permittee shall maintain records of all monitoring information for a period of at least 3 years.

c. Records of monitoring information shall include:

i. The date, exact place, and time of sampling or measurements;

ii. The name(s) of individual(s) who performed the sampling or measurements;

iii. The Mean Sea Level elevation of the water table to the closest .01 ft., and the depth to water (to the closest .01 ft.) from a marked measuring point at the top of casing.

iv. Sampling procedures and sample preservation accomplished;

v. The date(s) analyses were performed;

vi. Names of individuals who performed the analyses;

vii. The analytical techniques or methods used; and

viii. The results of such analyses.

ix. Groundwater samples from the monitoring wells shall be analyzed as indicated on the following table. This table supercedes previous permit requirements.

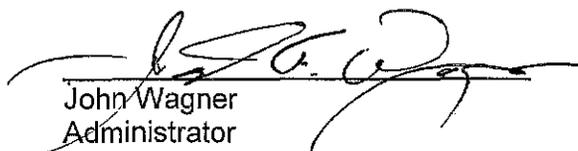
WELL NAME OR NUMBER	SAMPLING FREQUENCY	ANALYTICAL METHOD(S)	PARAMETER(S) ANALYZED	PERMIT LIMIT
All Existing Monitoring wells	Annual (Late Spring, High Water Level)	EPA 8015M EPA 8021 Various	TPH BTEX Natural Attenuation Parameters	

\* Permit Limits (i.e. Groundwater Protection Standards) are only required for compliance monitoring wells. All chemical concentrations in this permit are expressed in mg/l unless otherwise noted.

6. Within ninety (90) days of completion of the installation (initially) and annual sampling of the monitoring wells authorized by this permit, the Applicant shall submit to WDEQ/WQD an **Annual Monitored Natural Attenuation Report**. The *Report* shall contain the information outlined in the January 29, 1999 Remedial Action Plan.

7. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial work which may be required. Depending on the results of the subsurface investigation, additional site investigations or remedial actions may be required by the WQD. An adequate number of well(s)/piezometer(s) shall be installed to define the nature and extent of the contamination.

AUTHORIZED BY:

  
 John Wagner  
 Administrator  
 Water Quality Division

  
 John Corra  
 Director  
 Department of Environmental Quality

6/6/11  
 Date of Issuance

DH/rm/11-0532

cc: IPS, Lander

GROUNDWATER POLLUTION CONTROL PROGRAM  
REVIEW COMMENTS:  
PLANS/SPECIFICATIONS/PROPOSALS/REPORTS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
510 Meadowview Drive  
Lander, Wyoming 82520  
(307)332-3144

**PROJECT:** Western Co. Site Remediation, Rock Springs

**APPLICANT:** BJ Services Company, U.S.A. (Now Baker Hughes, previously owned by  
The Western Co.)  
2929 Allen Parkway, Suite 2100  
Houston, Texas 77019  
Mr. Chris Clodfelder

**ENGINEER/  
CONSULTANT:** Eric Mears  
Brown and Caldwell  
1077 Westheimer, Ste. 925  
Houston, TX 77042

**WATER QUALITY DIVISION REFERENCE (PERMIT) NUMBER: 11-214**

EXISTING       NEW       AS BUILT

**TITLE:** Installation of three (3) additional groundwater monitoring wells.

PLANS       SPECS       PROPOSAL       REPORT  
[Check all that APPLY]

**DATE ON PROPOSAL/PLANS/REPORT:** May 2011

**IS THIS PROPOSAL SUBMITTED PURSUANT TO:**

'CONDITIONS' TO ANY WQD PERMIT?     NO     YES [PERMIT #99-104]

AN LOV, NOV OR OTHER ENFORCEMENT?     NO     YES [LOV 4/14/1998]

**REVIEWING GEOLOGIST:**

\_\_\_\_\_  
Deborah Harris, PG

**DATE OF THIS REVIEW:** June 1, 2011

**ACTION:** Proposal Approved

**COMMENTS: GROUNDWATER SECTION**

**1.0 SUMMARY OF EXISTING CONTAMINATION:**

**1.1 History.** On February 5, 1991, hydrocarbon impacted water was encountered in a utility trench during a water line repair near the Western Company facility (now owned by B J Services Company, USA) located at 2100 Upland Street in Rock Springs. Several subsurface investigations have been conducted and annual sampling of groundwater monitor wells continues.

**1.2 Soils.** The upper two feet of soil is poorly graded gravel and silty clay. Compact clay and silty clay are interbedded from two to 15 feet. The two areas within the site that are impacted are near the former fuel island and the former field waste system. The impacted soil is limited to the upper 12 to 14 feet. Soil TPH concentrations range from 10 to 7,700 mg/kg. The estimated soil volume requiring remediation is 22,400 cubic yards.

**1.3 Groundwater.** Groundwater depth ranges from six to eight feet below surface. Direction of flow varies due to preferential flow of backfill materials. Groundwater TPH concentrations have been as high as 110 mg/l. The last round of groundwater sampling had a maximum TPH reading of 15 mg/l. Free phase hydrocarbon (FPH) has been identified in MW-6; FPH removal took place at MW-6 with a passive recovery system (WQD Permit 94-344) until 1997. No FPH was observed during the 1997 and 1998 sampling events. Approximately 33 gallons of FPH was removed from MW-6 from 1994 through 1996. Some PAH constituents have been detected historically.

MW-12 was destroyed sometime after April, 1996. The remedial action plan (RAP) includes the "As Built" information for the construction of replacement well MW-12R. Permit 99-104 (attached) authorizes the construction of this well "as built", based on the information provided in the RAP.

**2.0 CONCLUSION OF ADEQUACY OF WORK COMPLETED TO DATE:**

**2.1 Remedial Action Plan (RAP).** In response to the WQD's letter and review of September 1998, Brown and Caldwell submitted a RAP, dated January 29, 1999, for BJ Services that evaluates and recommends monitored natural attenuation (MNA) as a long term remedy for this site.

At the time, B J Services had been collecting "intrinsic bioremediation parameters" since January 1996 and, in the RAP, they summarized the data and evaluated the NA criteria to determine if NA is a viable remedial alternative. There were three basic lines of evidence that NA is occurring; 1) Decreasing concentrations of hydrocarbons over time; 2) Stable or decreasing concentrations of hydrocarbons with distance from the source, and; 3) The presence and distribution of geochemical and biochemical indicators of NA.

The RAP summarizes the hydrocarbon data collected since 1994 and states that "...dissolved phase hydrocarbon concentrations decreased in each facility well during the time period through April 1997...." In addition, FPH that was present in MW-6 since 1991 has not been observed since the October 1996 sampling event.

Monitoring wells located away from the site of the hydrocarbon release have much lower concentrations of TPH than wells MW-1, MW-2 and MW-6 that are located adjacent to the release location. Well MW-12R is located the farthest away from the release location, in the down gradient direction, and had a TPH value of less than 1 mg/l in December 1998. The groundwater plume with TPH concentrations that exceed the WQD standard of 10 mg/l has maintained a relatively constant size, remaining in a 100 foot radius of the location of the release.

The third line of evidence, geochemical and biochemical indicators, also supports the conclusion that NA is taking place at the site. The primary geochemical indicators, dissolved oxygen (DO), and nitrate, show a direct inverse relation in areas with the highest occurrence of TPH in the groundwater. The oxidation-reduction potentials were also measured, with those results also supporting the presence of NA.

**2.2 Other Supporting Data.** Several other lines of evidence support the use of MNA as the long term remedy at this site. The net precipitation for the Rock Springs area is approximately 7.5 inches/year. This small amount infers that there will be little potential for precipitation to leach hydrocarbons from the soil into the groundwater. Also, the soils at the site are mostly silty to sandy clays with a low hydraulic conductivity. This impedes the mobility of the groundwater and the ability of hydrocarbons to leach to groundwater.

The RAP discusses the lack of potential receptors for the contaminated groundwater. There are no water wells screened in this upper aquifer in a one mile radius. The closest surface water, Killpecker Creek, is a Class 4 intermittent/ephemeral stream that does not support aquatic life. Well MW-12R is located between the plume and the creek and has not shown TPH levels greater than 2 mg/l.

### **2.3 Additional site characterization information**

Two (2) additional monitoring wells, MW-26 and MW-27, were installed on April 3, 2001, under permit # 99-104. MW-14, the northernmost well, has been destroyed, and efforts to locate it were unsuccessful. Data indicates two (2) plumes onsite, one at the former waste field and one at the former fuel island. Additional soil delineation has been discussed but not pursued.

### **2.4 Results of groundwater monitoring since 1999 to 2010**

Review of the 2010 Annual Report indicates increases in constituent levels in some wells. In addition, data indicates the groundwater plume/s are not fully delineated, and additional monitoring wells are needed. The GPC requested a workplan to accomplish

additional delineation in its January 12, 2011, letter. A Workplan proposing installation of two (2) additional groundwater monitoring wells was submitted on May 11, 2011. GPC reviewed the Workplan and suggested one additional groundwater monitoring well. A plan modifying the original Workplan to include three (3) groundwater monitoring wells was submitted on May 27, 2011, along with applications for a Chapter 3 Permit-to-construct. Installation of the three (3) additional monitoring well will be performed in accordance with the May 11, 2011, Workplan.

### **3.0 REQUESTS, REQUIREMENTS, and/or RECOMMENDATIONS:**

**3.1 Performance Monitoring.** The RAP, dated January 29, 1999, includes a performance monitoring plan that proposes an annual sampling event that measures all of the NA parameters as well as the groundwater elevations and TPH values. The WQD requested that the sampling event take place in the late spring, beginning in 1999, when the groundwater is at its highest level. This sampling and monitoring timeframe should continue after additional groundwater monitoring wells have been installed. This is usually when groundwater hydrocarbon concentrations are the highest, however that trend is not obvious at this site based on the historical data.

Please continue to include a presentation of the analytical results in a graphical format that will allow easy comparison of the data over time. This includes the NA parameters (i.e., dissolved oxygen, nitrate, etc.)

Assessment of the performance of MNA is required. Depending on the results of the monitoring to include the additional monitoring well, additional site evaluation may be needed. Barring the need for more immediate site investigation, after another 5 years of MNA following the installation of the 3 additional monitoring wells, a report will be required that summarizes the data collected, evaluates the progress at the site and proposes modifications to RAP if necessary. These RAP modifications may include performing an active remediation or augmenting natural attenuation if it is shown to be ineffective at this site.

**3.2 Free Phase Hydrocarbon Recovery.** MW-6 has had FPH accumulations historically. If FPH reappears, please continue the passive recovery as required in Permit #94-344.

**END OF REVIEW**

DN/rm/11-0532

Attach: Permit 11-214

cc: File(3): BJ Services/Western Co. - AST, Sweetwater / West District Review Forms / Chron.  
Mr. Kevin Frederick, Supervisor, GPC Program, WQD/Cheyenne  
Mr. Eric Mears, Brown and Caldwell, 10777 Westheimer, Suite 925, Houston, TX 77042



# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 3, 2011

Timothy Shay  
5 Remington Rd.  
Sundance, WY 82729

RE: Shay Residential Small Wastewater System, Crook County  
Location: SE ¼, Section 25, T49N, Range 64W; Permit # 11-215

Dear Mr. Shay:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install, or modify the facility in accordance with general permit and the materials submitted in your application package. The General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage, [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

Additionally, the following permit condition applies:

1. Cleanouts are required every 100 feet and at all changes in direction 22.5 degrees and greater, both horizontal and vertical. This requirement includes both the pipeline from the house to the septic tank and from the septic tank to the leachfield.
2. Either a 6-inch diameter clean-out riser or a manway from each compartment of the septic tank must be extended to the ground surface from all septic tanks.

Please be advised that Crook County inspects all small wastewater systems permitted through WDEQ. Please contact Crook County Growth and Development at 307.283.4548 to arrange an inspection of the system. **Septic systems shall not be installed during adverse weather. This includes rain, snow, severely cold temperatures, or excessively moist soils.** Please contact me with questions at 307.777.6941.

Sincerely,

*Suzanne Engels*  
Suzanne Engels  
WDEQ/WQD

SE/rm/11-0537

cc: IPS, Cheyenne  
WYDEQ Casper File  
Tim Lyons, Crook County Growth and Development, PO Box 848, Sundance, WY 82729  
Gary Hamm, Diamond M Inc, 397 Green Mountain Rd, Sundance, WY 82729





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John Corra, Director

## NOTIFICATION OF COVERAGE

June 14, 2011

C. Dawn Wilhelm P.E., Utility Division Manager  
City of Riverton  
816 N. Federal Blvd.  
Riverton, WY 82501

RE: Riverton Water Supply Project, JCC Transmission Line, DEQ Permit #11-216, Fremont County, Riverton, Latitude 43.036317, Longitude 108.429928°

Dear Ms. Wilhelm,

This project consists of the installation of a future transmission and distribution main for the existing 2,000,000 gallon water tank located at the City of Riverton's water treatment facility to a future 2,000,000 gallon water tank located south of the Job Corps Center site.

The above application for coverage under General Permit has been reviewed in accordance with Chapter 3, Section 7, and Chapter 12, Section 14 of the Wyoming Water Quality Rules and Regulations and is hereby approved.

You are authorized to construct, the facility in accordance with the general permit and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit.

These General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage. The General Permits can be found under the Water Quality Division Water and Wastewater Program, Engineering and Technical Services at:

[http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

If you have any questions, please contact Hannes Stueckler at 307-335-6964 or James Brough at 307-335-6961.

Sincerely,

Hannes E. Stueckler, P.E.  
Assistant Northwest District Engineer  
Water Quality Division

xc: PDF to Cheyenne  
Dan Coronet P.E., Burns and McDonnell, 9785 Maroon Circle, Suite 400, Centennial, CO 80112

Lander Field Office • 510 Meadowview Drive • Lander, WY 82520 • <http://deq.state.wy.us>

ABANDONED MINES  
(307) 332-5085  
FAX 332-7726

AIR QUALITY  
(307) 332-6755  
FAX 332-7726

LAND QUALITY  
(307) 332-3047  
FAX 332-7726

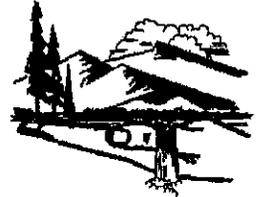
SOLID & HAZARDOUS WASTE  
(307) 332-6924  
FAX 332-7726

WATER QUALITY  
(307) 332-3144  
FAX 332-7726





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Matt Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 21, 2011

Robbi R. Phipps  
Town of Wamsutter  
P.O. Box 6  
Wamsutter, WY 82336

RE: Town of Wamsutter - 2011 West Wamsutter Water Main Project - Permit Number 11-217, NW ¼ Section 34, T20N, R94W, Sweetwater County

Dear Mr. Phipps:

The above application for coverage under General Permit to Construct the extension of a public water supply distribution system consisting of about 3650 linear feet of 8-inch PVC water main in accordance with Chapter 3, Section 7 and Chapter 12, Section 14 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, the facility in accordance with the general permit and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the General Permit. These General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage. The General Permits can be found under the Water Quality Division Water and Wastewater Program, Engineering and Technical Services at :

[http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

If you have any questions, please contact me at 307-332-3144.

Sincerely,

Mark Baron, P.E.  
Southwest District Engineer  
Water Quality Division

PDF to Cheyenne  
Dan Ferrin, P.E., PMPC, P.O. Box 370, Saratoga, WY 82331





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 24, 2011

Wyoming Department of Transportation  
Lowell Fleenor, District Engineer, WYDOT District #3  
900 Bryan stock Trail  
Casper, WY 82601

RE: WYDOT Douglas Transportation Office Complex-  
Water and Sanitary Sewer Improvements Systems,  
Application No. 11-218, Converse County

Dear Mr. Fleenor:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as installation of approximate 1590 LF of 8 inch PVC water main, installing two ARV manholes, installing four fire hydrants, installing approximate 800 LF of new 8 inch PVC Sanitary Sewer, and install three new manholes, NE ¼ NW ¼, Section 23, T32N, R 71W; Converse County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the water distribution system in accordance with Chapter 12, Section 14 of the Water Quality Division Rules and Regulations, the sewage collection system in accordance with Chapter 11, Section 9 of the Water Quality Division Rules and Regulations, and both systems in accordance with the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by June 24, 2014.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. 11-218 in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

Sincerely,

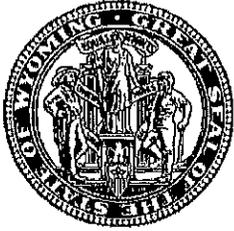
Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/rm/11-0606

Enclosure: Certificate of Completion

cc: IPS, Cheyenne  
Randy Bomar, Vista West Engineering, 1470 Sugarland Drive, Sheridan WY 82801





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Matt Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 14, 2011

Jack L. Stott, Business Manager  
Washakie County School District No. 1  
1900 Howell Ave.  
Worland, WY 82401

RE: Washakie County School District No. 1 - New Aquatic Center. DEQ Permit #11-219,  
Washakie County, Latitude 44.01°, Longitude 107.94°

Dear Mr. Stott,

This project consists of the construction of a new 28,000 square foot pool facility. As part of the project, a new 6 inch combined fire (approximately 64 linear feet) and 4 inch domestic service (approximately 420 linear feet) will be installed. An 8 inch sewer main (approximately 345 linear feet) and 3 manholes will be installed to provide sanitary sewer service to the new facility.

The above application for coverage under General Permit has been reviewed in accordance with Chapter 3, Section 7; Chapter 11, Part B; and Chapter 12, Section 14 of the Wyoming Water Quality Rules and Regulations and is hereby approved.

You are authorized to construct, the facility in accordance with the general permit and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit.

These General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage. The General Permits can be found under the Water Quality Division Water and Wastewater Program, Engineering and Technical Services at:

[http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

If you have any questions, please contact Hannes Stueckler at 307-335-6964 or James Brough at 307-335-6961.

Sincerely,

Hannes E. Stueckler, P.E.  
Assistant Northwest District Engineer  
Water Quality Division

xc: PDF to Cheyenne  
Mark G. Westenskow P.E., CTA Architects Engineers, P.O. Box 1153, Livingston, MT 59047

Lander Field Office • 510 Meadowview Drive • Lander, WY 82520 • <http://deq.state.wy.us>

ABANDONED MINES  
(307) 332-6086  
FAX 332-7726

AIR QUALITY  
(307) 332-6756  
FAX 332-7726

LAND QUALITY  
(307) 332-3047  
FAX 332-7726

SOLID & HAZARDOUS WASTE  
(307) 332-6924  
FAX 332-7726

WATER QUALITY  
(307) 332-3144  
FAX 332-7726





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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 27, 2011

Habitat for Humanity of Laramie County, Inc.  
Fran Smyth, Board President  
1805 Ames Avenue  
Cheyenne, WY 82001

RE: Habitat for Humanity Restore Annex  
Application No. **11-220**, Laramie County

Dear Fran Smyth:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as installation of approximately 325 feet of 8 inch PVC water main, installation one new fire hydrant, installation of one 4 inch sanitary sewer services, NW ¼, Section 6, T13N R 66W; Laramie County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the water distribution system in accordance with Chapter 12, Section 14 of the Water Quality Division Rules and Regulations, the sewage collection system in accordance with Chapter 11, Section 9 of the Water Quality Division Rules and Regulations, and both systems in accordance with the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by June 24, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path:  
[http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. **11-220** in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

Sincerely,

Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/rm/11-0608

Enclosure: Certificate of Completion

cc: IPS, Cheyenne  
Kelly Hafner, Benchmark Engineers, 1920 Thomes Ave., Suite 620, Cheyenne, WY 82001  
Herman Noe, Cheyenne Board of Public Utilities, P.O. Box 1469, Cheyenne WY 82003





# Department of Environmental Quality



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Matthew H. Mead, Governor

John Corra, Director

June 22, 2011

Mrs. Krystal Price  
Noble Energy, Inc.  
640 N. Hwy 14-16, Unit J  
Gillette, Wyoming 82716

Re: Noble Energy Inc., Deen Draw POD, Permit to Construct # 11-221

Dear Mrs. Price:

The Wyoming Department of Environmental Quality, Water Quality Division, has authorized the groundwater compliance monitoring program for the Sheep Camp Reservoir, which receives coalbed methane water within the Deen Draw POD. The data requirements and sampling schedule for groundwater monitoring wells associated with the Sheep Camp Reservoir are contained in the attached permit to construct #11-221.

The original Permit to Construct #10-347 was terminated in order to discontinue monitoring requirements for the Butte Reservoir. Please see the attached termination letter for Permit to Construct #10-347.

If you have any questions regarding this letter or the conditions in the attached permit or termination letter, please contact me or other Groundwater Section staff in the Sheridan office at 307-673-9337.

Sincerely

Don Fischer, WY P.G. #2852  
North District Geologic Supervisor  
Groundwater Section

CC: Kevin Frederick, State Groundwater Section Manager, Cheyenne  
Jason Thomas, WYPDES Program, Cheyenne  
File  
Correspondence file  
Archive





WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
"AS-BUILT" PERMIT TO CONSTRUCT

PERMIT NO. 11-221

REFERENCE PERMIT NOS. 05-715 and 10-347

Deen Draw POD  
(Sheep Camp Reservoir)

This permit hereby authorizes the applicant:

Noble Energy, Inc.  
1625 Broadway, Suite 2200  
Denver, CO 80202

to have installed four (4) compliance monitoring wells according to the procedures and conditions of the application number 11-221. The wells are proximal to an on channel coalbed methane produced water impoundment located in Township 55N, Range 73W, Section 12 in the county of Campbell, in the State of Wyoming. All construction, installation, or modification allowed by this permit has been completed.

The issuance of this permit confirms that the Wyoming Department of Environmental Quality (DEQ) has evaluated the application submitted by the permittee and determined that it meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the engineer's design are the responsibility of the permittee, owner, and operator.

Nothing in this permit constitutes an endorsement by DEQ of the construction or the design of the facility described herein. This permit verifies only that the submitted application meets the design and construction standards imposed by Wyoming statutes, rules and regulations. The DEQ assumes no liability for, and does not in any way guarantee or warrant the performance or operation of the permitted facility. The permittee, owner and operator are solely responsible for any liability arising from the construction or operation of the permitted facility. By issuing this permit, the State of Wyoming does not waive its sovereign immunity.

The permittee shall allow authorized representatives from DEQ to enter and inspect any property, premise or place on or at which the facility is located or is being constructed or installed for the purpose of investigating actual or potential sources of water pollution, and for determining compliance or non-compliance with any rules, regulations, standards, permits or orders.

Nothing in this permit shall be construed to preclude the institution of any legal action or other proceeding to enforce any applicable provision of law or rules and regulations. It is the duty of the permittee, owner and operator to comply with all applicable federal, state and local laws or regulations in the exercise of its activities authorized by this permit.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

The permittee shall operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions:

- 1 of 3 The applicant will provide immediate oral or written notice to the Wyoming Department of Environmental Quality/Water Quality Division, Groundwater Section, 2100 West 5<sup>th</sup> St, Sheridan, WY 82801, 307-673-9337, fax 307-672-2213, in accordance with the provisions of Section 11, Chapter 3, Wyoming Water Quality Rules and Regulations of any changes or modifications which are not consistent with the terms and conditions of this permit.
- 2 of 3 Monitoring Requirements:

**Sheep Camp Impoundment**

Unless otherwise specified, monitoring and reporting of the groundwater beneath the impoundment shall be performed on an **annual** basis until further notice and shall include the following information:

- Measurement of static water level in monitoring wells: SH-A2 and SH-B;
- Sampling and analysis of groundwater at down-gradient wells: SH-A2 and SH-B;
- The parameters listed in the table below are required for groundwater compliance monitoring beneath the listed impoundments:

**Impoundment: Sheep Camp**

Parameter	SH-A2 Background Value (mg/L) (10/07/05)	Class III Water Quality Standards (mg/L)
Selenium	0.007	0.05
Sulfate	633	3000
TDS	2010	5000
pH	7.2	6.5 – 8.5 (s.u)

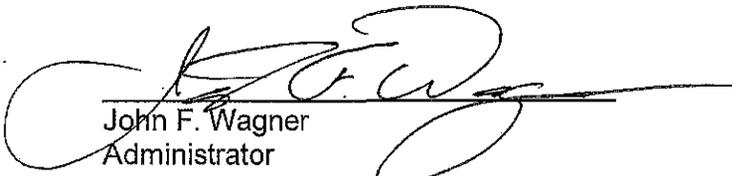
**Impoundment: Sheep Camp**

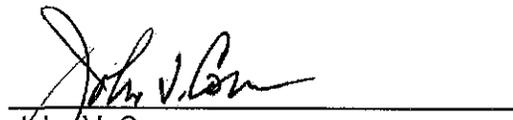
Parameter	SH-B Background Value (mg/L) (10/06/05)	Class III Water Quality Standards (mg/L)
Selenium	0.010	0.05
Sulfate	861	3000
TDS	2310	5000
pH	7.3	6.5 – 8.5 (s.u)

- Reporting results of **annual** monitoring and sampling are due to the department by January 15<sup>th</sup> of each year. Samples may be collected at any time, but must be scheduled such that sampling events occur approximately twelve months apart;
- If a groundwater monitoring event reveals a pH measurement of 6.5 or less, the DEQ may require sampling and analysis of groundwater for the following additional parameters: aluminum, boron, cadmium, chromium, copper, lead and zinc.
- The analytical results for each sampling event, along with impoundment and monitor well location information must be submitted in the Excel spread sheet "Compliance Monitoring Data Reporting", which can be found on the WDEQ website at the following address: (<http://deq.state.wy.us/wqd/groundwater/pollution.asp>). These data shall be submitted electronically on the due dates established above to the following department address: DEQ-CBMGroundwater@WYO.GOV. In addition, the accompanying analytical laboratory reports and field documentation must also be submitted either electronically (pdf format) or hard copy via mail to the WDEQ, Sheridan office at the address listed above.

3 of 3 Any exceedence of the water quality standards listed above will be considered a violation of this permit. If an exceedence of groundwater standards occurs as a result of the operation of the impoundment, the WDEQ may require a more frequent monitoring schedule, further investigation of the groundwater impacts, remediation of the groundwater impacts, and cessation of discharge into the impoundment.

AUTHORIZED BY:

  
John F. Wagner  
Administrator  
Water Quality Division

  
John V. Corra  
Director  
Department of Environmental Quality

6/16/11  
Date of Issuance

CS/rm/11-0566

# Memorandum

TO: Barb Barnes, IPS Supervisor

FROM: Don Fischer, North District Geologic Supervisor, Groundwater Section 

THROUGH: Kevin Frederick, State Groundwater Section Manager

DATE: June 22, 2011

SUBJECT: Termination of Permit to Construct #10-347: Deen Draw POD

The Groundwater Pollution Control (GPC) Program has reviewed the closure request to discontinue compliance monitoring at the above mentioned facility. The facility is located in Township 55N, Range 72W, NWNW Section 5.

This memo is to advise that the GPC Program has determined that the permittee has complied with the terms and conditions of WQD Permit to Construct # 10-347. Pursuant to Chapter 3, Section 12(b)(ii), the permit is automatically terminated. Please attach a copy of this memo to the IPS copy of the permit for future reference.

Thank you.



# Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor

John Corra, Director

June 22, 2011

Noble Energy, Inc.  
Attn.: Mrs. Krystal Price  
640N. Hwy 14-16, Unit J  
Gillette, WY 82716

Re: Cancellation of Compliance Monitoring Program, Noble Energy, Inc., Deen Draw POD, Butte Reservoir, Chapter 3 Permit to Construct # 10-347

Dear Mrs. Price:

The Wyoming Department of Environmental Quality, Water Quality Division (WQD), has reviewed your request to terminate groundwater compliance monitoring requirements associated with the Butte reservoir, which was permitted to receive coalbed methane (CBM) produced water within the Deen Draw POD. All monitoring requirements associated with the Butte Reservoir under Permit to Construct #10-347 are terminated at this time and a new permit (#11-221) will be issued for groundwater monitoring associated with the remaining impoundment covered under Permit to Construct 10-347.

CH. 3 Permit Number	Impoundment I.D.	Location				Monitor Well I.D.	Monitoring Schedule
		Qtr/Qtr	Sect.	Twn.	Rng.		
10-347	Butte Reservoir	NWNW	12	55	73	BR-A	No further monitoring required
						BR-B	
						BR-B2	
						BR-C	

Groundwater monitoring requirements are being terminated because Noble Energy did not construct, and has no plans to construct, an outfall to discharge CBM water to the Butte Reservoir. The impoundment and one monitoring well will be utilized by another operator.

The monitoring wells associated with the Butte impoundment shall be plugged and abandoned pursuant to Water Quality Rules and Regulations Chapter 26. Well abandonment reporting forms shall be submitted to the WQD within 60 days of receipt of this letter (<http://deq.state.wy.us/wqd/groundwater/index.asp>). It is our understanding that Noble Energy plans to plug and abandon three of the wells and that new operator will be responsible for plugging and abandoning the remaining monitoring well, BR-A, when the well is no longer needed.



If you have any questions regarding this letter, please contact me or other Groundwater Section staff in the Sheridan office at 307-673-9337.

Sincerely,

A handwritten signature in cursive script that reads "Don Fischer".

Don Fischer, WY P.G. #2852  
North District Geologic Supervisor  
Groundwater Section

CC: Kevin Frederick, State Groundwater Section Manager, Cheyenne, with Memo  
Jason Thomas, WYPDES Program, Cheyenne  
File  
Chronological file  
Archive



# Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor

John Corra, Director

June 22, 2011

Merit Energy Company  
Attn.: Ms. Arlene Valliquette  
13727 Noel Rd. Suite 500  
Dallas, TX 75240

Re: Plugging and Abandoning of Monitoring Well BR-A, Butte Reservoir  
Formerly owned by Noble Energy, Inc., WDEQ Chapter 3 Permit to Construct #10-347

Dear Mrs. Valliquette:

The Wyoming Department of Environmental Quality (WDEQ), Water Quality Division (WQD), has received a request from Noble Energy, Inc. to terminate groundwater compliance monitoring requirements associated with the Butte Reservoir, which was permitted to receive coalbed methane (CBM) produced water. Noble Energy did not construct, and has no plans to construct, an outfall to discharge CBM water to the Butte Reservoir. It is our understanding that the impoundment and one monitoring well (BR-A) will be utilized by Merit Energy Company.

All monitoring requirements associated with the Butte Reservoir under WDEQ Permit to Construct #10-347 are terminated at this time. The WDEQ is requiring Noble Energy, Inc. to plug and abandon three of the monitoring wells.

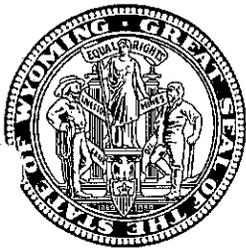
Merit Energy Company is now responsible for plugging and abandoning the remaining monitoring well, BR-A, when the well is no longer needed. The monitoring well shall be plugged and abandoned pursuant to Water Quality Rules and Regulations Chapter 26, Section 11. Well abandonment reporting forms shall be submitted to the WQD within 60 days of receipt of this letter (<http://deq.state.wy.us/wqd/groundwater/index.asp>).

If you have any questions regarding this letter, please contact me or other Groundwater Section staff in the Sheridan office at 307-673-9337.

Sincerely  
  
Don Fischer, WY P.G. #2852  
North District Geologic Supervisor  
Groundwater Section

CC: Kevin Frederick, State Groundwater Section Manager, Cheyenne, with Memo  
Jason Thomas, WYPDES Program, Cheyenne  
Kathy Brus, BLM, Buffalo  
Krystal Price, Noble Energy, Gillette  
File, Chron, Archive





# Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 6, 2011

Brush Creek, LLC  
Attn: Lawrence E. Burnell, Assistant Manager  
Star Route 10  
Saratoga, Wyoming 82331

RE: TZ Ranch – Kids Camp Septic System, Application No. **11-222**  
Location: SE¼ SW¼ Section 7, T16N, R81W, Carbon County

Dear Mr. Burnell:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of a 1000 gallon, two compartment, concrete grease interceptor tank attached to the cook house building, and a 1000 gallon, two compartment, concrete septic tank servicing the bath house building and discharge from the grease interceptor, and about 400 feet of mounded chamber bed type leachfield with four equal length rows of chambers for a **cook house with kitchen only and a campground bath house for 40 tent based campers** in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the small wastewater system in accordance with Chapter 25 of the Water Quality Division Rules and Regulations, the general permit, the conditions listed below, and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit. Additionally, the following project specific conditions also apply:

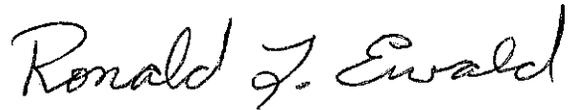
1. Septic Tank Clean-Out Riser Requirement - Either a 6 inch diameter clean-out riser or the manway **from each compartment of the septic tank and grease trap tank must be extended to the ground surface.**
2. Leachfield Inspection Ports Required - additional vertical inspection pipes shall be installed at about the midpoint of one of the interior and one of the exterior lengthwise rows of leachfield chambers. These inspection ports shall extend to above the finished ground surface, and be capped and protected from bird/rodent entry when not in use.



The approval granted under this Notification Of Coverage and the General Permit shall expire on July 5, 2013. Please reference Application Number 11-222 in any future correspondence.

If you have any questions, please contact me at either [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov) or by phone at (307) 777-6183.

Sincerely,



Ronald L. Ewald  
Assistant Southeast District Engineer  
Southeast District, Water & Wastewater Section  
Water Quality Division

RLE/rm/11-0629

Enclosures: GENERAL PERMIT - Small Wastewater Facility  
Certificate of Completion

cc: IPS, Cheyenne  
Mark Butler, Inberg-Miller Engineers, 350 Parsley Boulevard, Cheyenne, WY 82007  
Kristy Rowan, Carbon County Planning Office, Carbon Building, 215 West  
Buffalo Street, Suite 336, Rawlins, Wyoming 82301



# Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

November 3, 2011

Gwen Fordham  
P.O. Box 183  
Alcova, Wyoming 82620

RE: Fordham Residential Septic System,  
Location: NW¼ NW¼, Section 22, T28N, R83W,

Application No. **11-223**  
Carbon County

Dear Ms. Fordham:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of a 1000 gallon, two compartment polyethylene septic tank and about 200 feet of rock and pipe type leachfield divided into two equal length trenches of 100 feet each for a **2 bedroom mobile home** in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the small wastewater system in accordance with Chapter 25 of the Water Quality Division Rules and Regulations, the general permit, the conditions listed below, and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit. Additionally, the following project specific conditions also apply:

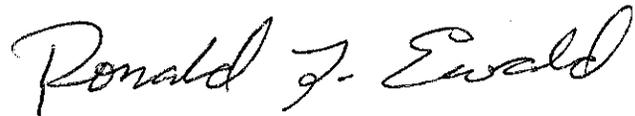
1. Septic Tank Clean-Out Riser Requirement - Either a 6 inch diameter clean-out riser or the manway from **each compartment of the septic tank** must be extended to the ground surface.
2. Polyethylene Septic Tank Installation Requirements - To ensure structural integrity, the **manufacturer's instructions** regarding bedding the tank and filling the tank with water during burial **must be followed during installation**. Additionally, immediately after clean-outs, the tank must be refilled with water according to the manufacturer's instructions to maintain structural integrity.



The approval granted under this Notification Of Coverage and the General Permit shall expire on November 3, 2013. Please reference Application Number 11-223 in any future correspondence.

If you have any questions, please contact me at [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov) or (307) 777-6183.

Sincerely,

A handwritten signature in cursive script that reads "Ronald L. Ewald".

Ronald L. Ewald  
Assistant Southeast District Engineer  
Southeast District, Water & Wastewater Section  
Water Quality Division

RLE/rm/11-0973

Enclosures: GENERAL PERMIT - Small Wastewater Facility  
Certificate of Completion

cc: IPS, Cheyenne  
Kristy Rowan, Carbon County Planning Office, Carbon Building, 215 West  
Buffalo Street, Suite 336, Rawlins, Wyoming 82301

REVIEW OF PLANS AND SPECIFICATIONS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION

Herschler Bldg., 4 West  
Cheyenne, Wyoming 82002

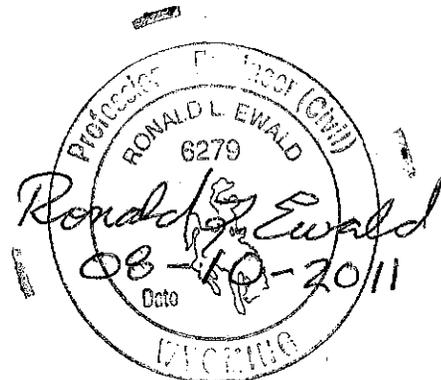
PROJECT: Fordham Residential Septic System  
LOCATION: NW¼, NW¼, Section 22, T28N, R83W, Carbon County  
ENGINEER: None  
APPLICANT: Gwen Fordham  
P.O. Box 183  
Alcova, Wyoming 82620  
Ph: (307) 251-1401

WATER QUALITY DIVISION REFERENCE #: 11-223

REVIEWING ENGINEER: Ronald L. Ewald  
Phone: (307) 777-6183  
Email: [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov)

DATE OF REVIEW: August 10, 2011

2<sup>nd</sup> Review



**ACTION:** NOT AUTHORIZED FOR CONSTRUCTION. In accordance with Section 14 (a), Chapter III, Wyoming Water Quality Rules and Regulations, the application is denied because it is incomplete or does not meet applicable minimum design and construction standards. Please address the comments outlined below and submit the requested information in order that the application process may be completed in accordance with Section 9. If the applicant fails to provide the requested information within six months the incomplete application shall be returned.

**COMMENTS, INADEQUACIES, AND QUESTIONS:**

1. Surface Ground Slope - the application indicates that the surface ground slope is 6% running in the same direction as the proposed leachfield trenches. At 6% slope over 100 feet long the ground surface elevation will drop about 6 feet. This means that if the downhill ends of the trenches are 4 feet deep, then the uphill ends would have to be 10 feet deep to keep the bottom of the trench level as required. Ten(10) feet is much too deep. A maximum of no more than 5 to 6 feet deep is recommended. Please figure out a way to configure your leachfield layout to minimize the depth of the bottom of the "level" trenches at their deepest locations. Several suggestions are to:
  - a. Make the leachfield 4 trenches at 50 feet long each, instead of just 2 trenches. This would cut the elevation change from end to end from 6 feet to only 3 feet, or
  - b. Turn the leachfield trenches to run across the slope instead of with the slope(see sketch included), or
  - c. Some other revised layout you may devise to fit your property better.
  
2. Redo Worksheets, Detail Sheets, and Site Plan - please make the needed corrections and adjustments on the blank sheets provided.

RLE/rm/11-0731

Enclosures: Blank Worksheet: page 4  
Blank Detail sheets: "Two Trench" or "Four Trench Pipe Leachfield"  
Copy of Site plan to modify  
Sketch of suggestion 1.b. above

REVIEW OF PLANS AND SPECIFICATIONS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Bldg., 4 West  
Cheyenne, Wyoming 82002

PROJECT: Fordham Residential Septic System  
LOCATION: NW¼, NW¼, Section 22, T28N, R83W, Carbon County  
ENGINEER: None  
APPLICANT: Gwen Fordham  
P.O. Box 183  
Alcova, Wyoming 82620  
Ph: (307) 251-1401

WATER QUALITY DIVISION REFERENCE #:

11-223

REVIEWING ENGINEER: Ronald L. Ewald  
Phone: (307) 777-6183  
Email: [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov)

DATE OF REVIEW: June 24, 2011



**ACTION:** NOT AUTHORIZED FOR CONSTRUCTION. In accordance with Section 14 (a), Chapter III, Wyoming Water Quality Rules and Regulations, the application is denied because it is incomplete or does not meet applicable minimum design and construction standards. Please address the comments outlined below and submit the requested information in order that the application process may be completed in accordance with Section 9. If the applicant fails to provide the requested information within six months the incomplete application shall be returned.

## COMMENTS, INADEQUACIES, AND QUESTIONS:

1. Percolation Rate, Loading Rate Factor, and Minimum Leachfield Area Incorrect - a percolation(perc) rate of 20 minutes per inch(mpi), along with the corresponding loading rate factor of 0.46 was used in the calculation of the minimum leachfield area. The 20mpi perc rate is not correct from the perc test data submitted which clearly indicates a perc rate of 40mpi. The loading rate factor that goes with the 40mpi rate is 0.35. Using this correct value for the loading rate factor yields a minimum leachfield area of 1000 sq.ft.(350gpd/0.35), not the 760 sq.ft. determined in the application package.
2. Leachfield Size and Layout needs to be Adjusted - the corrected total linear feet of trench length required will be 200 linear feet. A single trench should not be more than 100 feet long; therefore the planned leachfield will have to be laid out as either a two trench or four trench design.
3. Surface Ground Slope - the application indicates that the surface ground slope is 6%. Which direction does the ground slope at the proposed leachfield site? Please indicate on the site plan the downhill direction of slope with some small arrows pointed downhill.
4. Redo Worksheets, Detail Sheets, and Site Plan - please make the needed corrections and adjustments on the blank sheets provided.

Enclosures: Blank Worksheets: pages 3 & 4  
Blank Detail sheets: "Two Trench & Four Trench Pipe Leachfield"  
Copy of Site plan to modify  
Copy of Perc Test Data for reference

RLE/rm/11-0609



# Department of Environmental Quality



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Matt Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 16, 2011

Craig Barsness, Manager  
Shoshoni Municipal Pipeline  
50 Agua Via,  
Cody, WY 82414

RE: Shoshoni Municipal Pipeline Relocation Project - US highway 14 A. Milepost 3.22 Milepost 5.6. DEQ Permit #11-224, Park County, Latitude 44.537 5°, Longitude 109.0014°

Dear Mr. Barsness,

This project consists of the relocation of a 24 inch diameter treated water transmission pipeline along US Highway 14A between approximately mileposts 3.2 and 5.6. The pipeline is being relocated from inside of the WYDOT right-of-way to outside of WYDOT right-of-way in advance of highway 14A roadway reconstruction planned by WYDOT. Removal of the existing pipeline located within the WYDOT right-of-way is also included in the project.

The above application for coverage under General Permit has been reviewed in accordance with Chapter 3, Section 7, and Chapter 12, Section 14 of the Wyoming Water Quality Rules and Regulations and is hereby approved.

You are authorized to construct, the facility in accordance with the general permit and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit.

These General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage. The General Permits can be found under the Water Quality Division Water and Wastewater Program, Engineering and Technical Services at:

[http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

If you have any questions, please contact Hannes Stueckler at 307-335-6964 or James Brough at 307-335-6961.

Sincerely,

Hannes E. Stueckler, P.E.  
Assistant Northwest District Engineer  
Water Quality Division

xc: PDF to Cheyenne  
C. Jade Gernant, Aspen-Banner engineering, 1575 N. 4th St., Suite 105, Laramie, WY 82072

Lander Field Office • 510 Meadowview Drive • Lander, WY 82520 • <http://deq.state.wy.us>

ABANDONED MINES  
(307) 332-5085  
FAX 332-7726

AIR QUALITY  
(307) 332-6755  
FAX 332-7726

LAND QUALITY  
(307) 332-3047  
FAX 332-7726

SOLID & HAZARDOUS WASTE  
(307) 332-6924  
FAX 332-7726

WATER QUALITY  
(307) 332-3144  
FAX 332-7726





# Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 19, 2011

Brush Creek, LLC  
Lawrence E. Burnell, Assistant Manager  
Star Route 10  
Saratoga, Wyoming 82331

RE: TZ Ranch – McGheehee Complex Septic System,  
Location: SE¼ SE¼ Section 13, T16N, R83W,

Application No. 11-225  
Carbon County

Dear Mr. Burnell:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of a 2000 gallon, two compartment concrete septic tank and about 240 feet of chamber type leachfield divided into four equal length trenches of 60 feet each for a **Lodge and 5 cabins with a total of 9 bedrooms** in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the small wastewater system in accordance with Chapter 25 of the Water Quality Division Rules and Regulations, the general permit, the conditions listed below, and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit. Additionally, the following project specific conditions also apply:

1. Septic Tank Clean-Out Riser Requirement - Either a 6 inch diameter clean-out riser or the manway from **each compartment of the septic tank** must be extended to the ground surface.
2. Reporting / Documentation Requirements - In addition to the reporting requirements of Part V, Section O of the general permit noted above, the following items are also required to be submitted with the Certification of Completion. Pictures of the different components of the facility at various stages of construction shall be submitted, including but not limited to the following:

Herschler Building · 122 West 25th Street · Cheyenne, WY 82002 · <http://deq.state.wy.us>

ADMIN/OUTREACH  
(307) 777-7758  
FAX 777-7682

ABANDONED MINES  
(307) 777-6145  
FAX 777-6462

AIR QUALITY  
(307) 777-7391  
FAX 777-5616

INDUSTRIAL SITING  
(307) 777-7369  
FAX 777-6937

LAND QUALITY  
(307) 777-7756  
FAX 777-5864

SOLID & HAZ. WASTE  
(307) 777-7752  
FAX 777-5973

WATER QUALITY  
(307) 777-7781  
FAX 777-5973

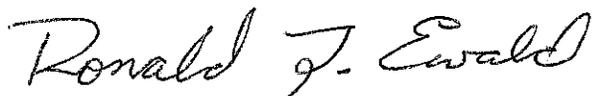


- a. Unbroken ground at the site before construction begins,
- b. The service line trenches with the pipes, wyes, clean-outs, and other fittings in place before being covered,
- c. The septic tank in place with the top and inflow and outflow lines in view,
- d. The header pipe layout at the head of the leachfield before cover,
- e. The leachfield trenches (as a group) both before and after the leach chambers have been put in place,
- f. The finished mounded leachfield,
- g. Any other pertinent or important construction details, and
- h. An overview picture of the entire completed site.

The approval granted under this Notification Of Coverage and the General Permit shall expire on July 19, 2013. Please reference Application Number **11-225** in any future correspondence.

If you have any questions, please contact me at [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov) or (307) 777-6183.

Sincerely,



Ronald L. Ewald  
Assistant Southeast District Engineer  
Southeast District, Water & Wastewater Section  
Water Quality Division

RLE/rm/11-0674

Enclosures: GENERAL PERMIT - Small Wastewater Facility  
Certificate of Completion

cc: IPS, Cheyenne  
Mark Butler, Inberg-Miller Engineers, 350 Parsley Boulevard, Cheyenne, WY 82007  
Kristy Rowan, Carbon County Planning Office, Carbon Building, 215 West  
Buffalo Street, Suite 336, Rawlins, Wyoming

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION

PERMIT TO CONSTRUCT

New

PERMIT NO. 11-226  
SPECIAL CONDITIONS

This permit hereby authorizes the applicant:

Jim Lippincott  
Lippincott Feedlot  
5043 Highway 92  
Torrington, WY 82240

to construct, install or modify a 2900 head concentrated animal feeding operation (feedlot) according to the procedures and conditions of the application number 11-226. The facility is located in SW ¼ Section 31 T23N R60W in the county of Goshen, in the State of Wyoming. This location is about a mile Southeast of the community of Huntley. All construction, installation, or modification allowed by this permit shall be completed by June 28, 2015.

The issuance of this permit confirms that the Department of Environmental Quality (DEQ) has evaluated the application submitted by the permittee and determined that it meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the engineer's design are the responsibility of the permittee, owner, and operator.

Granting this permit does not imply that the Wyoming DEQ guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements. Compliance with discharge standards remains the responsibility of the permittee.

Nothing in this permit constitutes an endorsement by the DEQ of the construction or the design of the facility described herein. This permit verifies only that the submitted application meets the design and construction standards imposed by the DEQ statutes, rules and regulations. The DEQ assumes no liability for, and does not in any way guarantee or warrant the performance or operation of the permitted facility. The permittee, owner and operator are solely responsible for any liability arising from the construction or operation of the permitted facility. By issuing this permit, the state does not waive its sovereign immunity.

The permittee shall allow authorized representatives from the DEQ, Water Quality Division, to enter and inspect any property, premise or place on or at which the facility is located or is being constructed or installed for the purpose of investigating actual or potential sources of water pollution, and for determining compliance or non-compliance with any rules, regulations, standards, permits or orders.

The permittee shall notify representatives from the DEQ, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District, State of Wyoming, DEQ, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th Street, Cheyenne, Wyoming 82002; telephone (307) 777-7781; FAX (307) 777-5973.

Nothing in this permit shall be construed to preclude the institution of any legal action or other proceeding to enforce any applicable provision of law or rules and regulations. It is the duty of the permittee, owner and operator to comply with all applicable federal, state and local laws or regulations in the exercise of its activities authorized by this permit.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

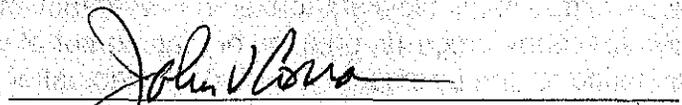
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions:

- 1 of 3 The applicant will provide immediate oral or written notice to the DEQ/WQD Southeast District Office in accordance with the provisions of Section 11, Chapter 3, Wyoming Water Quality Rules and Regulations of any changes or modifications which are not consistent with the terms and conditions of this permit.
- 2 of 3 Within sixty days of completion of construction of the authorized facility, the applicant will submit to the DEQ/WQD Southeast District Office on the form provided (CERTIFICATION OF COMPLETION), the following information:
  - a. Date that construction of the facility was completed; and
  - b. Date that the facility was placed in operation; and
  - c. Certification the facility was constructed in accordance with the terms and conditions of the permit; or
  - d. Certification the facility was completed with changes or modifications. Submittal of as-constructed plans and specifications for the system as it was constructed, certified by an engineer if appropriate. All modifications or deviations from the authorized plans must be highlighted.
- 3 of 3 The review and approval of this permit is based upon the items identified in the attached "Statement of Basis".

AUTHORIZED BY:

  
John F. Wagner  
Administrator  
Water Quality Division

  
John Corra  
Director  
Department of Environmental Quality

6/28/11  
Date of Issuance

LBH/rm/11-0619

## STATEMENT OF BASIS

1. Permit Number: 11-226
2. This application was reviewed for compliance with Chapters 3 and 11.
3. Basis for issuing permit.

Review of application package indicates proposed facility will be in compliance with applicable regulations, Chapters 3 and 11.

4. Application requires review to determine groundwater impacts in accordance with Section 17, Chapter 3.
5. If Section 17 of Chapter 3 is applicable, indicate the basis of determining groundwater will be protected. (Fill out only the applicable sections and indicate sections that are not applicable.)

Existing soils or geology will not allow a discharge to groundwater. Briefly describe: Basis of facility design is that it will be operated so as not to violate groundwater standards (example: maintenance of manure pack at animal waste treatment facility). Briefly describe:

The soils investigation identified a very low permeability layer (average permeability of  $2.1 \times 10^{-6}$  cm/sec) soil beneath the area where the retention pond will be created. Additionally the retention pond area is presently vegetated with alkali grass. Great care will be taken during construction to not damage the existing grass which is adapted to survival in an alkaline soil that is occasionally submerged for brief periods of time. The feeding pens will be constructed on a uniformly sloped surface and will rapidly develop a manure pack which will shed any precipitation to the retention pond. The nutrient management plan will require that the retention pond area be evacuated of any standing water within 10 days of a storm event. This allows the existing vegetation to utilize any nutrients in the runoff before infiltration can carry those nutrients to the groundwater. The impermeability of the surface soils was verified by the boring for monitor well #1. A shallow artesian aquifer (first water encountered at 18 ft) eventually stabilized approximately 1.6 ft below the surface. The upper 8 ft of soils are acting as a confining layer, verifying the impermeability over the area of the proposed construction.

Briefly describe monitoring system (parameters, frequency, etc.). Clearly state the parameters to be utilized for determining compliance, what constitutes a violation and steps to be followed by the permittee in the event of a violation.

Monitoring points will be established at monitor well #1, monitor well #2, and in the field tile drain at the northeast corner of the property.

Nitrate ( $\text{NO}_3$ ) as N, Limit 10.0 ppm, and Ammonia ( $\text{NH}_3$ ) as N, Limit 0.5 ppm, will be the parameters to be monitored for compliance. Monitor well #2 is an up gradient well. If the upgradient well shows levels exceeding compliance, that will be considered when evaluating any exceedance at monitor well #1. If the monitoring point in the field tile exceeds

compliance, an upstream monitoring point must be immediately established in the field tile. If the upstream monitoring point shows levels exceeding compliance, that will be considered when evaluating any exceedance at northeast corner tile monitoring point.

**Documentation of Statement of Basis.**

The archive file for this permit will include adequate documentation of all sections of this Statement of Basis.

**CERTIFICATION**

The issuance of this permit is based upon a review of the application package submitted in accordance with the requirements of Section 6, Chapter 3, Wyoming Water Quality Rules and Regulations. This review was performed by Louis B. Harmon, Southeast District Engineering Supervisor, and completed on June 28, 2011. Permit issuance is recommended based upon statements, representations, and procedures presented in the permit application and supporting documents, permit conditions, and the items identified in this "Statement of Basis."

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
PERMIT TO CONSTRUCT

PERMIT NO. 11-227

North Bill Disposal  
Commercial Oilfield Wastewater Evaporation Pond

This permit hereby authorizes the applicant:

North Bill Disposal, LLC  
P.O. Box 403  
Douglas, Wyoming 82633

to construct, install or modify up to six (6) evaporative pond cells for disposal of oilfield exploration and production wastewaters, according to the procedures and conditions of the application number 11-227. The facility is located in the northwest quarter of the southeast quarter of Section 1, Township 38 North, Range 71 West, in the county of Converse, in the State of Wyoming. The facility is located approximately 5.5 miles northwest of Bill, 31 Wyoming. All construction, installation, or modification allowed by this permit shall be completed by July 1, 2016.

The issuance of this permit confirms that the Wyoming Department of Environmental Quality (DEQ) has evaluated the application submitted by the permittee and determined that it meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the engineer's design are the responsibility of the permittee, owner, and operator.

Granting this permit does not imply that DEQ guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements. Compliance with discharge standards remains the responsibility of the permittee.

Nothing in this permit constitutes an endorsement by DEQ of the construction or the design of the facility described herein. This permit verifies only that the submitted application meets the design and construction standards imposed by Wyoming statutes, rules and regulations. The DEQ assumes no liability for, and does not in any way guarantee or warrant the performance or operation of the permitted facility. The permittee, owner and operator are solely responsible for any liability arising from the construction or operation of the permitted facility. By issuing this permit, the State of Wyoming does not waive its sovereign immunity.

The permittee shall allow authorized representatives from DEQ to enter and inspect any property, premise or place on or at which the facility is located or is being constructed or installed for the purpose of investigating actual or potential sources of water pollution, and for determining compliance or non-compliance with any rules, regulations, standards, permits or orders.

Nothing in this permit shall be construed to preclude the institution of any legal action or other proceeding to enforce any applicable provision of law or rules and regulations. It is the duty of the permittee, owner and operator to comply with all applicable federal, state and local laws or regulations in the exercise of its activities authorized by this permit.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions:

- 1 of 11 The applicant will notify the CBM / Oil and Gas Group, Water Quality Division, 152 North Durbin Street, Suite 100, Casper, WY 82601, Phone 307-473-3465, FAX 307-473-3458 of the date construction will begin and the estimated completion date.
- 2 of 11 The applicant will provide the CBM / Oil and Gas Group, Water Quality Division, 152 North Durbin Street, Suite 100, Casper, WY 82601, the name of the type and brand of the primary and secondary liner, the liner manufacturer(s), the liner installation contractor(s), and all other required documentation related to the liners, at least two weeks prior to beginning construction. The manufacturer(s) will need to submit recommended installation methods that include cold weather installation. At a minimum, installation should be conducted in accordance with "Cold Weather Seaming of Geomembranes", Geosynthetic Institute, GRI Test Method GM9 or a comparable method.
- 3 of 11 The applicant will provide immediate oral or written notice to the CBM / Oil and Gas Group, Water Quality Division, 152 North Durbin Street, Suite 100, Casper, WY 82601, Phone 307-473-3465, FAX 307-473-3458, in accordance with the provisions of Section 11, Chapter 3, Wyoming Water Quality Rules and Regulations of any changes or modifications which are not consistent with the terms and conditions of this permit.
- 4 of 11 Within sixty days of completion of construction of the authorized facility, the applicant will submit to the CBM / Oil and Gas Group, Water Quality Division, 152 North Durbin Street, Suite 100, Casper, WY 82601, a certification of completion signed by the Engineer of Record or the owner. A form titled "Certificate of Completion" has been provided.
  - a. Date that construction of the facility was completed; and
  - b. Date that the facility was placed in operation; and
  - c. Certification the facility was constructed in accordance with the terms and conditions of the permit; or
  - d. Certification the facility was completed with changes or modifications. Submittal of as-constructed plans and specifications for the system as it was constructed, certified by an engineer if appropriate is required. All modifications or deviations from the authorized plans must be highlighted.
- 5 of 11 The review and approval of this permit is based upon the items identified in the attached "Statement of Basis".
- 6 of 11 Measurement of depth to groundwater and testing of groundwater is to be performed prior to filling any ponds at this facility. Groundwater monitoring will be conducted on a quarterly basis and results reported to DEQ within a month after receiving laboratory analytical reports. Samples will be submitted for the following analysis:
  - a) electrical conductivity

- b) pH
- c) chloride
- d) sodium
- e) alkalinity
- f) sulfate
- g) total dissolved solids

The analyte list and monitoring frequency are subject to revision as needed by CBM / Oil and Gas Group, Water Quality Division.

- 7 of 11 The leak detection system is to be checked weekly for the first month following filling of a pond and monthly thereafter with a log kept of the inspection results. As new ponds are constructed, the leak detection system is to be checked weekly for the first month. If fluid is found, the DEQ CBM / Oil and Gas Group is to be notified immediately, and samples are to be pulled from the inspection pipes and tested for total petroleum hydrocarbons (TPH) by EPA Method 8015 (modified), chlorides, total dissolved solids (TDS) and sulfates. Results are to be reported to DEQ as soon as they are available. Testing requirements are subject to revision as needed.

If a leak is confirmed, the pond(s) will be pumped dry of all wastewater. No additional wastewater will be placed into the pond(s) until a complete inspection and test of the liner is completed.

- 8 of 11 Fluids in the ponds are to be checked annually for the following constituents. Each pond will be sampled and analyzed separately in accordance with the following list:

- a) electrical conductivity
- b) pH
- c) chloride
- d) sodium
- e) alkalinity
- f) sulfate
- g) barium
- h) total dissolved solids

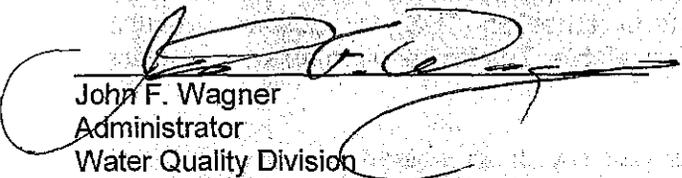
The results of the pond analyses are to be reported to DEQ within one month after receiving laboratory analytical reports. The analyte list and monitoring frequency are subject to revision by CBM / Oil and Gas Group, Water Quality Division.

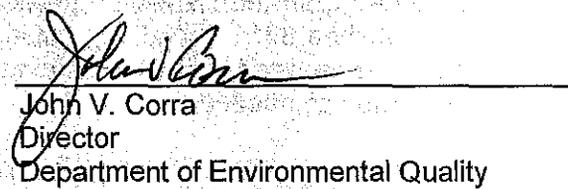
- 9 of 11 The facility is authorized to receive oilfield exploration and production waste (production water, produced water, frac water, and CBM produced water only), exempt from RCRA regulations by EPA. Any other waste must be approved on a case by case basis by the DEQ and the owner. Prior to approval for disposal by DEQ/WQD, all other waste will be subject to rules, regulations, policies, and/or procedures related to hazardous waste determination and disposal, as issued or promulgated by DEQ/Solid and Hazardous Waste Division (SHWD).

- 10 of 11 The validity of this permit is subject to the owner maintaining a bond acceptable to the State of Wyoming, DEQ/WQD for the amount of the facility closure and post-closure costs. The bonding amount is subject to review on an annual basis. The bond amount may be "phased-in", in accordance to the facility construction. However, prior to construction of any pond, financial assurance must be in place which covers the next construction phase. This additional bonding must be acceptable to the State of Wyoming prior to any construction related to that phase.

An annual report will be submitted to DEQ CBM / Oil and Gas Group by April 1 of each year. The annual report will include relevant details of the construction, modification, and operation details of the facility from the previous year, any anticipated construction, modification and/or operational changes for the upcoming year. The report will include a discussion and analysis of the groundwater monitoring, leak detection monitoring and pond analysis. A listing of all non exploration and production wastes accepted by the facility will also be included in the annual report. This listing shall include generator, type of waste, amount and date of disposal. The annual report will also include a review of the closure and post closure requirements, including financial costs. A renewal of the bond will be required as part of the annual report. Reporting requirements are subject to modification by DEQ.

AUTHORIZED BY:

  
John F. Wagner  
Administrator  
Water Quality Division

  
John V. Corra  
Director  
Department of Environmental Quality

7/19/11  
Date of Issuance

JDL/KJM/rm/11-0672

cc: Todd Kuxhaus, Great West Engineering, P.O. Box 4817, Helena, MT 59604

## STATEMENT OF BASIS

1. Permit Number: **11-227**
2. Application reviewed for compliance with the following applicable regulations :  
Chapters 3 and 11 of the Wyoming Water Quality Rules and Regulations
3. Does the permit comply with all applicable regulations identified above?  
YES
4. Facilities include components not specifically covered or differing from applicable regulations and approval is based upon a deviation in accordance with Section 5.
  - a. The permit includes approval to deviate from the following regulatory requirements:  
Not applicable
  - b. Briefly state the basis for the deviation.  
Not applicable
  - c. Permit approval is based upon deviation from applicable regulations in accordance with approved policy statement.  
Not applicable
5. A review to determine groundwater impacts in accordance with Section 17, Chapter 3 was required.
6. If Section 17 of Chapter 3 review is required, indicate the basis for determining groundwater will be protected.

The facility will not allow a discharge to groundwater.

Each pond will have a primary liner of 60 mil high density polyethylene with a 40 mil high density polyethylene secondary liner. A compacted clay subgrade will be installed under the secondary liner. A leak detection system will be installed between the two liners. Groundwater monitoring wells will also be installed at the facility to monitor groundwater on a quarterly basis.

Quality of wastewater is such that it will not cause a violation of groundwater standards.

Not applicable

Existing soils or geology will not allow a discharge to groundwater.

Not applicable

The facility is designed and will be operated so that it will not to violate groundwater standards.

Not applicable

Discharge will result in groundwater concentrations in excess of standards but post discharge water quality can be returned to standards in accordance with Section 4 (d)(vi), Chapter VIII. Briefly describe:

Not applicable

If any groundwater quality standards are to be exceeded, briefly describe how any users of the affected aquifer will be protected. The description should include the water quality standard affected, the anticipated maximum concentration, the property boundaries, places of groundwater withdrawal and any other relevant information.

Not applicable

Briefly describe monitoring plan. The groundwater monitoring plan includes the monitoring wells or other sampling points, the parameters to be analyzed, the sampling frequency and reporting methods.

The leak detection system will be checked weekly for the first month after the ponds are filled. A log will be kept of the inspection results. The leak detection system is also monitored by a high level alarm system. If fluid is found, DEQ will be notified immediately. If a leak is confirmed, the pond(s) will be pumped dry of all wastewater. No additional wastewater will be placed into the pond(s) until a complete inspection and test of the liner is completed.

Measurement of depth to groundwater and testing of groundwater is to be performed prior to filling any ponds at this facility. Groundwater monitoring will be conducted on a quarterly basis and results reported to DEQ within a month after receiving laboratory analytical reports. If groundwater monitoring indicates a release to groundwater, a plan to investigate the extent of the release will be submitted to DEQ within 30 days after confirming the release for DEQ's approval. Following approval, the plan will be implemented.

Fluids in the pond are to be checked annually for hazardous constituents by collecting a sample from each pond in operation.

Operational concerns will be identified in an annual report to be submitted to DEQ by April 1 of each year. Any changes in operations, a discussion of groundwater monitoring, leak detection system operation, and pond characterization is to be included in the annual report.

The permit should clearly state the parameters to be utilized for determining compliance and what occurrences constitute a violation. The permit should identify the corrective actions to be taken in the event of a violation of a groundwater standard.

Documentation of Statement of Basis.

The archive file for this permit includes adequate documentation of all sections of this Statement of Basis.

CERTIFICATION

The issuance of this permit is based upon a review of the application package submitted in accordance with the requirements of Chapter 3, Section 6, Wyoming Water Quality Rules and Regulations. This review was performed by Kim Medina and Dennis Lamb, CBM / Oil and Gas Group and completed on June 20, 2011. Permit issuance is recommended based upon statements, representations, and procedures presented in the permit application and supporting documents, permit conditions, and the items identified in this "Statement of Basis."

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
PERMIT TO CONSTRUCT

PERMIT NO. 11-228

Pump Station No. 1 Capacity Upgrade  
PWS# WY5600019

This permit hereby authorizes the applicant:

City of Gillette  
PO Box 3003  
Gillette, Wyoming 82717-3003

to construct, install or modify upgrading the capacity of an existing pump station by upsizing an existing 50 hp pump to a 125 hp pump, adding a third air stripper unit, adding a protective building to protect the air stripper blowers, and miscellaneous appurtenances, according to the procedures and conditions of the application number 11-228. The facility is located along Warlow Drive in north Gillette, in NE 1/4 of Section 21, Township 50 North, Range 72 West, in the County of Campbell, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed by December 31, 2013.

The issuance of this permit confirms that the Wyoming Department of Environmental Quality (DEQ) has evaluated the application submitted by the permittee and determined that it meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the engineer's design are the responsibility of the permittee, owner, and operator.

Granting this permit does not imply that DEQ guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements. Compliance with discharge standards remains the responsibility of the permittee.

Nothing in this permit constitutes an endorsement by DEQ of the construction or the design of the facility described herein. This permit verifies only that the submitted application meets the design and construction standards imposed by Wyoming statutes, rules and regulations. The DEQ assumes no liability for, and does not in any way guarantee or warrant the performance or operation of the permitted facility. The permittee, owner and operator are solely responsible for any liability arising from the construction or operation of the permitted facility. By issuing this permit, the State of Wyoming does not waive its sovereign immunity.

The permittee shall allow authorized representatives from DEQ to enter and inspect any property, premise or place on or at which the facility is located or is being constructed or installed for the purpose of investigating actual or potential sources of water pollution, and for determining compliance or non-compliance with any rules, regulations, standards, permits or orders.

Nothing in this permit shall be construed to preclude the institution of any legal action or other proceeding to enforce any applicable provision of law or rules and regulations. It is the duty of the permittee, owner and operator to comply with all applicable federal, state and local laws or regulations in the exercise of its activities authorized by this permit.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

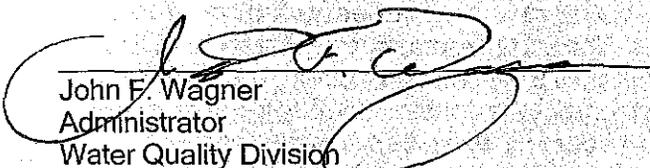
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and

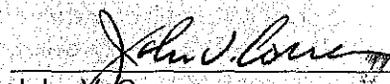
permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions:

- 1 of 3 The applicant will provide immediate oral or written notice to the DEQ/WQD Northeast District Office in accordance with the provisions of Section 11, Chapter 3, Wyoming Water Quality Rules and Regulations (WWQRR) of any changes or modifications which are not consistent with the terms and conditions of this permit.
- 2 of 3 Within sixty days of completion of construction of the authorized facility, the applicant will submit to the DEQ/WQD Northeast District Office on the form provided (CERTIFICATION OF COMPLETION), the following information:
  - a. Date that construction of the facility was completed; and
  - b. Date that the facility was placed in operation; and
  - c. Certification the facility was constructed in accordance with the terms and conditions of the permit; or
  - d. Certification the facility was completed with changes or modifications. Submittal of as-constructed plans and specifications for the system as it was constructed, certified by an engineer if appropriate. All modifications or deviations from the authorized plans must be highlighted.
- 3 of 3 The review and approval of this permit is based upon the items identified in the attached "Statement of Basis".

AUTHORIZED BY:

  
John F. Wagner  
Administrator  
Water Quality Division

  
John V. Corra  
Director  
Department of Environmental Quality

8/29/11  
Date of Issuance

KJF/bb/11-0781

## STATEMENT OF BASIS

1. Permit Number: 11-228
2. Application reviewed for compliance with the following applicable regulations:
  - a. Chapters 3 and 12.
3. Does the permit comply with all applicable regulations identified above?  
Yes
4. Facilities not specifically covered by regulations
  - a. Identify specific sections of the regulations for which a deviation is approved and briefly summarize the regulation.  
Not applicable
  - b. Briefly state the basis for the deviation.  
Not applicable
5. Application requires review to determine groundwater impacts in accordance with Section 17, Chapter 3.  
not required
6. Documentation of Statement of Basis.

The archive file for this permit will include adequate documentation of all sections of this Statement of Basis.

## CERTIFICATION

The issuance of this permit is based upon a review of the application package submitted in accordance with the requirements of Section 6, Chapter 3, Wyoming Water Quality Rules and Regulations. This review was performed by Kevin Frank, SRF Project Engineer, and completed on August 26, 2011. Permit issuance is recommended based upon statements, representations, and procedures presented in the permit application and supporting documents, permit conditions, and the items identified in this "Statement of Basis."

KJF/bb/11-0781



# Department of Environmental Quality

*To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.*



Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 19, 2011

Janice Peterson  
P.O. Box 462  
Encampment, WY 82325

RE: Janice Peterson Residential Septic System,  
Location: NE¼ NW¼ Section 23, T15N, R83W,  
Trail Run Area South Subdivision, Tract A2

Application No. 11-229  
Carbon County

Dear Ms. Peterson:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of a 1000 gallon, two compartment concrete septic tank, a 5-outlet distribution box, and about 375 feet of chamber bed type leachfield divided into five equal length lines of 75 feet each for a **4 bedroom house** in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the small wastewater system in accordance with Chapter 25 of the Water Quality Division Rules and Regulations, the general permit, the condition listed below, and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit. Additionally, the following project specific condition also applies:

Septic Tank Clean-Out Riser Requirement - Either a 6 inch diameter clean-out riser or the manway from **each compartment of the septic tank** must be extended to the ground surface.



The approval granted under this Notification Of Coverage and the General Permit shall expire on July 19, 2013. Please reference Application Number 11-229 in any future correspondence.

If you have any questions, please contact me at [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov) or (307) 777-6183.

Sincerely,



Ronald L. Ewald  
Assistant Southeast District Engineer  
Southeast District, Water & Wastewater Section  
Water Quality Division

RLE/rm/11-0675

Enclosures: GENERAL PERMIT - Small Wastewater Facility  
Certificate of Completion

cc: IPS, Cheyenne  
Kristy Rowan, Carbon County Planning Office, Carbon Building, 215 West  
Buffalo Street, Suite 336, Rawlins, Wyoming  
Phil Fleming, Fleming Excavating, Box 645, Encampment, WY 82325

REVIEW OF PLANS AND SPECIFICATIONS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION

Herschler Bldg., 4 West  
Cheyenne, Wyoming 82002

PROJECT: Janice Peterson Residential Septic System

LOCATION: SW¼, NE¼, Section 14, T15N, R83W,

Carbon County

ENGINEER: None

APPLICANT: Janice Peterson  
P.O. Box 462  
Encampment, WY 82325  
Ph: (307) 327-6345

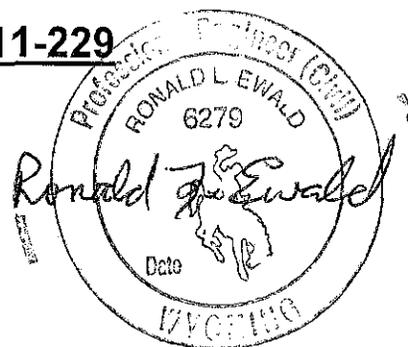
INSTALLER: Brad Hebis  
Box 114  
Encampment, WY 82325  
Ph: (970) 215-1819

**WATER QUALITY DIVISION REFERENCE #:**

**11-229**

REVIEWING ENGINEER: Ronald L. Ewald  
Phone: (307) 777-6183

DATE OF REVIEW: June 29, 2011



**ACTION:** **NOT AUTHORIZED FOR CONSTRUCTION.** In accordance with Section 14 (a), Chapter III, Wyoming Water Quality Rules and Regulations, the application is denied because it is incomplete or does not meet applicable minimum design and construction standards. Please address the comments outlined below and submit the requested information in order that the application process may be completed in accordance with Section 9. If the applicant fails to provide the requested information within six months the incomplete application shall be returned.

**COMMENTS, INADEQUACIES, and QUESTIONS:**

1. Percolation Rate Incorrect - the percolation test data was misinterpreted. The test data actually indicates a perc rate of 60 minutes per inch(mpi), not the 23mpi used in the application. All subsequent calculations will have to be redone.
2. Minimum Leachfield Area Calculated is Undersized - because the perc rate used in the calculations was incorrect, the minimum required leachfield size came out much too small.
3. Leachfield Area Test Excavation Required - the application indicates that a test excavation was not done. This is a requirement and is especially important in this case because the property lies between and near to both the Encampment Rivers. Then complete page 10 of the application.
4. Chamber Trench System Details(PART C) Need to be Refigured - as above, the chamber trench leachfield details will have to be recalculated because of the initial error in the perc rate. Additionally, two trenches will now be much too long such that either a "Four Trench", "Multiple Trench", or "Bed" system will need to be employed to keep the individual trench lengths less than 100 feet. And lastly, after determining what layout you choose to use, the corresponding trench detail sheet must also be completed. Either Sheet C3 or C4.

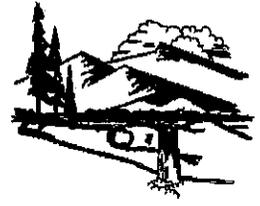
If you should have any questions please call me at the phone number listed above.

Attachments: Copy of Percolation Test Data sheet with corrected Perc Rate Analysis

RLE/rm/11-0620



# Department of Environmental Quality



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Matt Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 22, 2011

Preston Chiasson, Owner  
Rib & Chop House  
1367 Sheridan Ave.  
Cody, WY 82414

RE: Rib and Chophouse Expansion-Fire Sprinkler. DEQ Permit #11-230, Park County, City of Cody, Latitude 44.5262°, Longitude 109.0607°

Dear Mr. Chiasson,

This project consists of the installation of approximately 20 linear feet of 4 inch water line north of Sheridan Ave. to provide fire protection to the Rib & Chop House expansion in the City of Cody.

The above application for coverage under General Permit has been reviewed in accordance with Chapter 3, Section 7, and Chapter 12, Section 14 of the Wyoming Water Quality Rules and Regulations and is hereby approved.

You are authorized to construct, the facility in accordance with the general permit and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit.

These General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage. The General Permits can be found under the Water Quality Division Water and Wastewater Program, Engineering and Technical Services at:

[http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

If you have any questions, please contact Hannes Stueckler at 307-335-6964 or James Brough at 307-335-6961.

Sincerely,

Hannes E. Stueckler, P.E.  
Assistant Northwest District Engineer  
Water Quality Division

xc: PDF to Cheyenne  
Cody A. Schatz P.E., engineering Associates, P.O. Box 1900, Cody, WY 82414

Lander Field Office • 510 Meadowview Drive • Lander, WY 82520 • <http://deq.state.wy.us>

ABANDONED MINES  
(307) 332-5085  
FAX 332-7726

AIR QUALITY  
(307) 332-6755  
FAX 332-7726

LAND QUALITY  
(307) 332-3047  
FAX 332-7726

SOLID & HAZARDOUS WASTE  
(307) 332-6924  
FAX 332-7726

WATER QUALITY  
(307) 332-3144  
FAX 332-7726





# Department of Environmental Quality

*To protect, conserve, and enhance the quality of Wyoming's environment for the benefit of current and future generations.*



Matthew H. Mead, Governor

152 N. Durbin St., Suite 100 • Casper, WY 82601 • (307) 473-3450

John Corra, Director

## NOTIFICATION OF COVERAGE

June 22, 2011

Bill Courtney  
Exterran Water Management Services  
P.O. Box 6795  
Sheridan, WY 82801

RE: Alternate WAC Softening Resin, Johnson County, Wyoming  
Permit to Construct #11-231

Dear Mr. Courtney:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Pilot Project in accordance with Section 5, Chapter 11, of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install, or modify the facility in accordance with general permit and the materials submitted in your application package. **This permit expires October 31, 2011.**

Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O, of the general permit. The following items need to be submitted to WDEQ/WQD CBM Group:

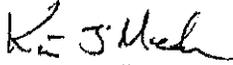
- a. Date that the construction of the treatment facility will begin;
- b. Certification the construction of the treatment facility was done in accordance with the terms and conditions of the permit; or  
Certification the construction of the treatment facility was completed with changes or modifications.
- c. A detailed report including on-site and lab analytical data relating to the facility's performance for meeting the discharge requirements, treatment/discharge volumes, any problems with the system and what has been done to correct them, or a notification that the plant has not been operating, will be submitted within 30 days after end of treatment.



- f. Immediate notification to WDEQ/CBM Group of any violations, exceedences, upsets, or incidents relating to the facility and its operation.

Please notify WDEQ at least one week prior to start-up or initial processing of CBM water. If you have any questions, please contact Dennis Lamb or Kim Medina at 152 North Durbin, Casper, WY, 82601, (307) 473-3465. Thank you.

Sincerely,



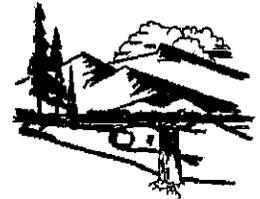
Kim J. Medina  
Geological Project Analyst  
DEQ/WQD

Enclosures: Application for Permit to Construct  
Certificate of Completion

cc: WDEQ File  
IPS Cheyenne



# Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matt Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 30, 2011

Todd Gnose  
A&T Land Development  
2280 West Teton  
Green River, WY 82901

RE: Rock Springs - The Estates At Whispering Pines -Water & Sewer Mains - Permit Number 11-232R, Federal Lot 31, Section 28, T19N, R105W, Sweetwater County

Dear Mr. Gnose:

The above application for coverage under General Permit to Construct the extension of a public water supply distribution system consisting of about 2511 linear feet of 8-inch PVC water main and the extension of a sewage collection system consisting of about 2052 linear feet of 8-inch PVC sewer main to serve 39 residential lots in accordance with Chapter 3, Section 7, Chapter 12, Section 14 and Chapter 11, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, the facilities in accordance with the general permits and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the General Permit. These General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage. The General Permits can be found under the Water Quality Division Water and Wastewater Program, Engineering and Technical Services at:

[http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

If you have any questions, please contact me at 307-332-3144.

Sincerely,

Mark Baron, P.E.  
Southwest District Engineer  
Water Quality Division

PDF to Cheyenne  
Shawn M. Arnoldi, P.E., Choice Engineering Services, 404 North St., Rock Springs, 82901



STATE OF WYOMING  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
UNDERGROUND INJECTION CONTROL PERMIT ISSUED UNDER  
WYOMING WATER QUALITY RULES AND REGULATIONS  
CHAPTER 16

CLASS V INJECTION WELL

( ) New  
(X) Modified (Renewal)

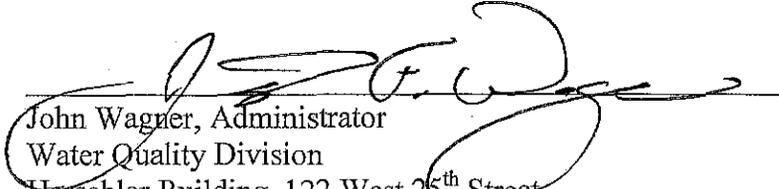
Permit Number **11-233**  
Previous Permits 01-221, 00-215, 98-227,  
97-069  
Facility Number WYS-025-383

In compliance with the Wyoming Environmental Quality act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through 301 (a)(iv), Laws 1973, Ch. 250, Section 1) and Wyoming Water Quality Rules and Regulations, Chapter 16.

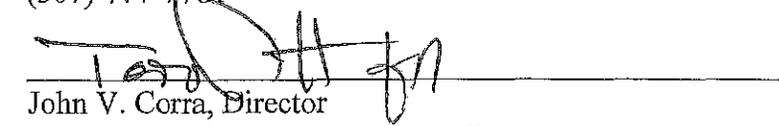
Applicant: Church of Jesus Christ of Latter Day Saints  
Attn: Warren H. Peterson  
46700 West Highway 220  
Alcova, WY 82620  
(801) 715-9184

The Church of Jesus Christ of Latter Day Saints, hereafter referred to as the permittee, is authorized to continue to operate the facility, Mormon Handcart Septic Systems. The facility has five (5) septic tank and leach field wastewater disposal systems in Section 35, Township 29 North, Range 87 West, of the 6<sup>th</sup> Principal Meridian, Natrona County. The permittee is allowed to operate the facility according to the procedures, conditions, and requirements of this permit.

This permit shall become effective on date of issuance.

  
John Wagner, Administrator  
Water Quality Division  
Herschler Building, 122 West 25<sup>th</sup> Street  
Cheyenne, WY 82002  
(307)-777-7781

9/9/11  
Date

  
John V. Corra, Director  
Department of Environmental Quality  
Herschler Building, 122 West 25<sup>th</sup> Street  
Cheyenne, WY 82002

9/13/11  
Date

ADN/rm/11-0835

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### A. Discharge Zone

The permittee is authorized to continue to inject into the existing five (5) septic systems. The septic systems and their respective flow rates are outlined in Table 2. The total maximum permitted injection volume is 7,150 gpd. The primary treated domestic wastewater is injected into the Sweetwater River Alluvium. The shallowest groundwater observed in the monitoring wells is 7.0 feet below ground surface.

### B. Well and Area of Review

The injection well authorized by this permit is located as follows:

Section 35, Township 29 North, Range 87 West, 6<sup>th</sup> Principal Meridian

The Area of Review is defined as a circular area of 360 acres with the injection facility located near its center.

The Area of Review is based upon the following assumptions:

**Table 1 Area of Review Inputs**

Description	Inputs	Units
Permit Duration	10	Years
Porosity	25	Percent
Maximum Injection Rate	7,150	GPD
Thickness of Receiver	30	Feet
Area of Review	360	Acres
Hydraulic Conductivity	5	Feet/Day

### C. Groundwater Classification

The groundwater in the Sweetwater River Alluvium is classified as Class I according to Wyoming Water Quality Rules and Regulations, Chapter 8. This classification is made because baseline water quality data meet the standards for a Class I groundwater. Additionally, there are domestic groundwater uses within the area of review. Groundwater of Class I shall not be degraded to make it unusable as a source of water for this purpose. An aquifer that contains less than 10,000 mg/L total dissolved solids (and is not exempted) can be considered an underground source of drinking water.

### D. Authorized Operations

The facility has a total of five (5) existing leachfields. The septic systems and their respective flow rates are in Table 2.

**Table 2 Permitted Septic System**

Description	Average Discharge (GPD)	Peak Discharge (GPD)
Visitor's Center	2100	3500
Bus Station	1200	2000
Duplex Housing Units (4)	720	1200
One-Bedroom Apartments (2)	180	300
Equipment Maintenance Shop	90	150
<b>Totals</b>	<b>4290</b>	<b>7150</b>

If additional sewage flows are added beyond those identified in the permit application, the leach field and/or treatment system may need to be enlarged in which case the permittee must submit a revised application and receive a new permit prior to modification of the leach field or treatment system.

**E. Hazardous Waste**

This permit does not allow for the injection of any hazardous waste as defined in 40 CFR 261.3 and in Wyoming Solid Waste Management Rules and Regulations, Chapter 2. Injection of any substance defined as a hazardous waste, whether hazardous by listing or by characteristic is a violation of this permit.

**F. Proper Operation and Maintenance**

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit. The permittee shall 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 the permit. Proper operation and maintenance includes: effective performance, adequate funding, operator staffing and training, and 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 this permit. The injection wells covered by this permit shall meet all construction requirements outlined in Wyoming Water Quality Rules and Regulations, Chapter 11 and Chapter 16.

The permittee is required to operate in accordance with statements, representations and procedures presented in the complete permit application and supporting documents as accepted and approved by the Administrator. Any modifications which will result in a violation of permit conditions shall be reported by submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued. Injection into a well may not begin until construction is complete and the permit is approved.

**G. Entry and Inspection**

The permittee shall allow the Administrator (upon presentation of credentials and 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 and photograph the discharge and related facilities, review and copy reports and records required by this permit, collect fluid samples for

analysis, measure and record water levels, and perform any other function authorized by law or regulation.

## **H. Environmental Monitoring Program for Groundwaters of the State**

### **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, 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 (3) 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. The permittee shall use electronic data deliverable (EDD) reporting when required by the Administrator.
4. 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;
  - g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.
5. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
6. The permittee shall retain all records concerning the nature and composition of injected fluids until five (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.
7. The permittee shall report any noncompliance which may endanger health or the environment 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.
8. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted.
  9. The monitoring reports shall be submitted on forms provided by the Department. 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 45 days following each schedule date.

**I. Requirements for Monitoring the Discharge**

The groundwater in the receiving formation shall be sampled and the following parameters analyzed according to the schedule identified in **Table 2**. The following parameters shall be analyzed semi-annually by the listed methods and reported annually:

**Table 3 Annual Groundwater Monitoring Schedule**

WELL NAME OR NUMBER	SAMPLING SCHEDULE	PARAMETER ANALYZED	ANALYTICAL METHOD	PERMIT LIMIT or UCL
Replacement MW-1	Semi Annual sample (1/01-6/30) and (7/01-12/31)	Ammonia as N	A 4500 NH3G	0.50 mg/L
Replacement MW-2		Chloride	EPA 300.0	250 mg/L
Replacement MW-3		Nitrate as N	EPA 353.2	10 mg/L
Replacement MW-4		Top of casing elevation (ft)	Casing elevation must be surveyed	Not applicable
		Depth to static water (ft)	Steel tape with chalk or electronic tape	Not applicable
Septic Tank	Monthly	Total Volume Injected	Flow meters	3,500 gpd

\*All applicable chemical concentrations in this permit are expressed as total (not dissolved) in mg/l unless otherwise noted.

The septic tanks must be inspected annually and pumped at least every 5 years. Sludge depth is not to exceed 24" in any of the septic tanks. Include a record of pumping of the tanks in the annual report. All annual reports are to be reported within forty-five (45) days of the last day of the year (February 14<sup>th</sup>).

The above upper control limit (UCL) can not be exceeded in any sample. Exceedance of this value is a violation of this permit and shall require notification under Section K of this permit.

Failure to perform and report analyses in accordance with the prescribed schedule and method is also a violation of this permit.

#### **J. Test Procedures**

All samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All samples taken shall include a trip blank of distilled water for each sampling date and a duplicate sample at least once per year. All required analyses shall be conducted in compliance with Wyoming Water Quality Rules and Regulations, Chapter 8, Section 7.

#### **K. Records and Reports**

The permittee shall furnish to the Administrator within a specified time any information which the Administrator may request relating to the operation of the facility, including copies of records required to be kept by this permit. The permittee shall retain copies of all records and reports required by this permit for a period of three (3) years following permanent well abandonment. After that time, those records shall be delivered to the Administrator for disposal or archive at his discretion. Confirmed noncompliance resulting in the migration of injected fluid into any zone outside the permitted receiver shall be reported to the Administrator within twenty-four (24) hours, and a written submission (via certified mail) shall be provided within five (5) days of the time the permittee becomes aware of the excursion. The written submission shall contain: a description of the noncompliance; 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 a list of the steps taken or planned to reduce, eliminate, and prevent the recurrence of the noncompliance. Confirmed noncompliance not already reported under this section shall be reported at the time monitoring reports are submitted. The reports shall contain the same information as required by the paragraph above. The permittee shall notify the Administrator thirty (30) days in advance of any planned alteration, conversion, or abandonment of the well covered by this permit.

#### **L. Permit Actions**

This permit is authorized for a period of ten (10) years. If the permittee wishes to continue injection after the expiration date of this permit he shall apply to the Administrator and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit. Under this permit, the Department may consider injection after the expiration date a violation of the permit.

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

After notice and opportunity for a hearing, a permit may be modified, suspended or revoked in whole or part during its term for cause which includes, but is not limited to any of the following:

1. Violation of this permit; or

2. Obtaining a permit by misrepresentation of facts in the application.

This permit will be reviewed at least once every five (5) years, and may be reviewed more frequently. A permit may be modified at any time as may be required, including for conformity with changes in regulations or standards which occur after the permit was issued. A permit may be modified in whole or part in order to apply more or less stringent standards; or prohibitions for toxic or other substances present in the permittees discharge as may be ordered by the Environmental Quality Council.

#### **M. Abandonment**

##### **General Requirements:**

1. The permittee shall notify the administrator at least thirty (30) days prior to abandonment of the facility.
2. An abandonment report, detailing the compliance with abandonment procedures outlined in the original application for coverage under this 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.
3. Injection wells covered by this permit shall be abandoned in accordance with Wyoming Water Quality Rules and Regulations, Chapter 16, Section 12.

#### **N. Duties of the Permittee**

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 alternation or addition. The permittee shall furnish the Administrator within a reasonable time any information which the Administrator may request to determine whether cause exists for modifying, revoking, or reissuing, or terminating this permit, or to determine compliance with this permit; and to furnish to the Administrator upon request, copies of records required to be kept by this permit. 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 any permit conditions shall be reported to the Administrator through the submission of a new or amended permit application. The permittee shall report all instances where he becomes aware that he failed to submit any relevant facts in the permit application, or where he submitted incorrect information in a permit application or in any report to the Administrator, and shall promptly submit such facts or information.

If any cultural materials are discovered during construction, work in the area should halt immediately. The Administrator and the Wyoming State Historic Preservation Office shall be contacted (777-7697) and the materials shall be evaluated by an archaeologist or historian meeting the Secretary of the Interior's Professional Qualification Standards (48 FR 22716, Sept. 1983).

## **O. Signatories Requirement**

All reports filed in conjunction with this permit shall contain 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 gather and evaluate 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."

All reports required by this permit and other requested information shall be signed as follows:

For a corporation – by a principal executive officer of at least the level of vice-president;

For a partnership or sole proprietorship – by a general partner or the proprietor, respectively;

For a municipality, state, federal, or other public agency – by either a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above. A person is a duly authorized representative only if:

1. The authorization is made in writing by one of the prescribed principals;
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
3. The written authorization is submitted to the Administrator.

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 the new authorized representative.

## **P. Noncompliance**

The permittee shall comply with all conditions of the permit. Any permit noncompliance constitutes a violation of Wyoming Water Quality Rules and Regulations, Chapter 16 and is grounds for enforcement action, permit termination, revocation, or modification. Confirmed noncompliance resulting in an excursion shall be reported to the Administrator orally within twenty-four (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 report shall contain the sections specified in Section K of this permit. Any permit noncompliance constitutes a violation of this permit.

The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

**Q. Permit Transfer**

Any transfer of this permit shall be accomplished by the submission of the proper forms for permit transfer to the Administrator. Transfer of this permit must first be approved by the Administrator and the Director. No transfer shall be approved unless the proposed permittee agrees to bring any and all noncompliance issues into compliance with this permit. The permittee is alone responsible for the operation of the facility covered by this permit. Sale of the facility and subsequent operation of this facility by another is a violation of this permit unless a transfer of this permit has first been accomplished.

**R. Property Rights**

This permit does not convey any property rights of any sort or any exclusive privilege. This permit does not authorize injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

**S. Severability**

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

STATEMENT OF BASIS FOR A UIC PERMIT

I. General information.

- A. UIC Permit Number: 11-233
- B. Facilities Covered: Mormon Handcart Septic Systems
- C. Class of Facility: Class V (Wyoming Water Quality Rules and Regulations, Chapter 16)

II. Application reviewed for compliance with the following regulations. (Indicate yes or no for each section)

- |               |     |               |     |
|---------------|-----|---------------|-----|
| A. Chapter 8  | Yes | D. Chapter 12 | No  |
| B. Chapter 9  | No  | E. Chapter 13 | No  |
| C. Chapter 11 | Yes | F. Chapter 16 | Yes |

III. Basis for issuing permit (Indicate yes or no for each section).

- A. Review of application package indicates proposed facility will be in compliance with applicable regulations identified in Section II.

Yes

- B. Permit based on deviation from applicable regulations in accordance with approved policy statement.

No

IV. Facilities not specifically covered by regulations. (Indicate the section number of the regulations and briefly summarize the regulation).

Not Applicable

V. Application requires review to determine groundwater impacts in accordance with Wyoming Water Quality Rules and Regulations, Chapter 3, Section 17. Note that sediment ponds, public water supplies, sewerage systems, and small wastewater systems are exempt from the requirements of Section 17. (Indicate either applicable or not applicable. If not applicable delete all of section VI from the Statement of Basis).

Applicable. A groundwater review has been conducted to insure that no groundwater will be impacted by this system.

VI. Documentation of Statement of Basis.

- A. The archive file for this permit will include adequate documentation of all sections of this Statement of Basis.

VII. Applicant and Public Participation

- A. The applicant has been provided with a draft permit prior to the permit being issued.

- B. A Public Notice has been issued with a public notice period starting July 29, 2011 and ending on August 28, 2011 (30 day notice as required by Wyoming Water Quality Rules and Regulations, Chapter 16). This notice was published in the Casper Star Tribune on or before the start of the public comment period.

#### CERTIFICATION

The issuance of this permit is based upon a review of the application package submitted in accordance with the requirements of Wyoming Water Quality Rules and Regulations, Chapter 16, Section 6. This review was performed by Adrienne D. Nunn, Project Engineer, and completed on July 13, 2011. Permit issuance is recommended based upon statements, representations, and procedures presented in the permit application and supporting documents, permit conditions, and the items identified in this "Statement of Basis".



# Department of Environmental Quality

*To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.*



Matthew H. Mead, Governor

John Corra, Director

September 9, 2011

**CERTIFIED**

Church of Jesus Christ of Latter Day Saints.

Attn: Warren H. Peterson  
46700 West Highway 220  
Alcova, WY 82620

RE: Mormon Handcart Septic Systems  
Draft Permit **11-233**, Class V Septic System  
Natrona County, Wyoming

Dear Mr. Peterson:

Attached please find one copy of the Class V permit and corresponding reporting forms for the above referenced facility. This permit requires sampling on a semi-annual basis and reporting on an annual basis within 45 days of the end of each calendar year.

The permit application, draft permit, final permit, public notice, and report forms are available for review on the GEM website <https://gem.trihydro.com>. Additionally, you may report using the GEM database on-line, however we still require you to mail the lab copies to us.

The underground injection control program was promulgated to prevent serious problems caused by direct discharges to the groundwater. Those problems included groundwater pollution leading to contamination in domestic water wells and serious health affects caused by exposures to toxic substances and water borne pathogens. Your cooperation with our program is sincerely appreciated.

If you have any questions please do not hesitate to contact me at (307) 777-6428 or by email at [adrienne.nunn@wyo.gov](mailto:adrienne.nunn@wyo.gov)

Sincerely,

Adrienne Nunn  
Project Engineer  
Water Quality Division

ADN/rm/11-0835

Enclosures: Report Forms  
Permit



WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
PERMIT TO CONSTRUCT

PERMIT NO. 11-234

TOWN OF PINE BLUFFS DEEP WELL (WELL#9)  
PWS WY5600040

This permit hereby authorizes the applicant:

Town of Pine Bluffs  
P.O. Box 429  
Pine Bluffs, WY 82082

to construct, install or modify 100 hp submersible well pump, pitless adapter, meter vault, piping, upgrading existing electrical system to power well #9, VFD, SCADA according to the procedures and conditions of the application number 11-234. The facility is located in SE1/4 NW 1/4, Section 14, T14N R60W; Laramie County, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed July 19, 2013.

The issuance of this permit confirms that the Wyoming Department of Environmental Quality (DEQ) has evaluated the application submitted by the permittee and determined that it meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the engineer's design are the responsibility of the permittee, owner, and operator.

Granting this permit does not imply that DEQ guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements. Compliance with discharge standards remains the responsibility of the permittee.

Nothing in this permit constitutes an endorsement by DEQ of the construction or the design of the facility described herein. This permit verifies only that the submitted application meets the design and construction standards imposed by Wyoming statutes, rules and regulations. The DEQ assumes no liability for, and does not in any way guarantee or warrant the performance or operation of the permitted facility. The permittee, owner and operator are solely responsible for any liability arising from the construction or operation of the permitted facility. By issuing this permit, the State of Wyoming does not waive its sovereign immunity.

The permittee shall allow authorized representatives from DEQ to enter and inspect any property, premise or place on or at which the facility is located or is being constructed or installed for the purpose of investigating actual or potential sources of water pollution, and for determining compliance or non-compliance with any rules, regulations, standards, permits or orders.

Nothing in this permit shall be construed to preclude the institution of any legal action or other proceeding to enforce any applicable provision of law or rules and regulations. It is the duty of the permittee, owner and operator to comply with all applicable federal, state and local laws or regulations in the exercise of its activities authorized by this permit.

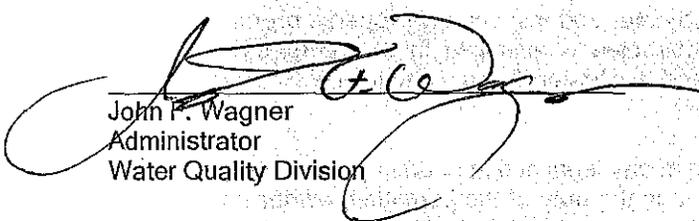
The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

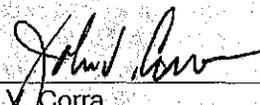
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions:

- 1 The applicant will provide immediate oral or written notice to the Southeast District, Water Quality Division, Herschler Building 4 West, Cheyenne, WY, 82002, Phone 307-777-7075, FAX 307-777-7610, in accordance with the provisions of Section 11, Chapter 3, Wyoming Water Quality Rules and Regulations of any changes or modifications which are not consistent with the terms and conditions of this permit.
2. A smooth-nosed sampling tap will be required.
3. The 1" vent pipe will have a 24 mesh noncorrodible screen.
4. Within sixty days of completion of construction of the authorized facility, the applicant will submit to the Southeast District, Water Quality Division, Herschler Building 4 West, Cheyenne, WY, 82002 a certification of completion signed by the Engineer of Record or the owner. A form titled "Certificate of Completion" has been provided.
  - a. Date that construction of the facility was completed; and
  - b. Date that the facility was placed in operation; and
  - c. Certification the facility was constructed in accordance with the terms and conditions of the permit; or
  - d. Certification the facility was completed with changes or modifications. Submittal of as-constructed plans and specifications for the system as it was constructed, certified by an engineer if appropriate is required. All modifications or deviations from the authorized plans must be highlighted.
  - e. As a part of the certificate of completion, the Engineer must certify that all Test Wells have been plugged and abandoned as required by Chapter 11, WQD Rules and Regulations.
6. The review and approval of this permit is based upon the items identified in the attached "Statement of Basis".

AUTHORIZED BY:

  
John F. Wagner  
Administrator  
Water Quality Division

  
John V. Corra  
Director  
Department of Environmental Quality

Date of Issuance

7/20/11

RRC/rm/11-0680

## STATEMENT OF BASIS

1. Permit Number: **11-234**
2. This application was reviewed for compliance with the applicable regulations ;  
Chapters 3, 12
3. Does the permit comply with all applicable regulations identified above?  
Yes
4. A review to determine groundwater impacts in accordance with Section 17, Chapter 3 was not required.  
Public water supplies are exempted from review by Chapter 3, Section 17.
5. Documentation of Statement of Basis: The archive file for this permit includes adequate documentation of all sections of this Statement of Basis.

## CERTIFICATION

The issuance of this permit is based upon a review of the application package submitted in accordance with the requirements of Chapter 3, Section 6, Wyoming Water Quality Rules and Regulations. This review was performed by Richard Cripe, Southeast District Engineer, Water and Wastewater Section, Wyoming Department of Environmental Quality /Water Quality Division, and completed on July 20, 2011. Permit issuance is recommended based upon statements, representations, and procedures presented in the permit application and supporting documents, permit conditions, and the items identified in this "Statement of Basis."



# Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 12, 2011

Herman Noe  
Cheyenne Board of Public Utilities  
P.O. Box 1469  
Cheyenne WY 82003-1469

RE: Snyder Avenue Waterline Relocation  
Application No. 11-235, Laramie County

Dear Mr. Noe:

The above application for coverage under General Permit to Construct, Install, Modify, or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as installation of approximately 113 feet of 12 inch PVC water main, installation of approximately 20 feet of 12 inch PVC sanitary sewer main, Section 36, T14N R 67W; Laramie County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install, or modify the water distribution system in accordance with Chapter 12, Section 14 of the Water Quality Division Rules and Regulations, the sewage collection system in accordance with Chapter 11, Section 9 of the Water Quality Division Rules and Regulations, and both systems in accordance with the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by July 12, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. 11-235 in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

Sincerely,

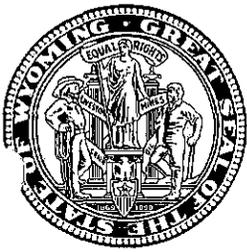
Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/bb/11-0644

Enclosure: Certificate of Completion

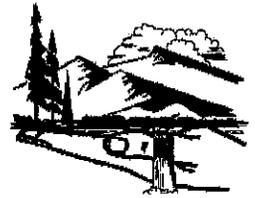
cc: IPS, Cheyenne  
Daniel C. Mummert, Trihydro Corporation, 3001 E. Pershing Blvd, Suite 115, Cheyenne, WY 82001





# Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 12, 2011

Doud Land, Inc  
Ben Doud, President  
25528 Genesee Trail Road  
Golden, CO 80401

RE: McJunkin-Redman, Inc.  
Application No. **11-236**, Laramie County

Dear Mr. Doud:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as installation of approximately 125 feet of 8 inch DIP water main, installation of 6 inch DIP fire line, installation one new fire hydrant, and installation of approximately 750 feet of 4 sanitary sewer service, NW ¼, Section 31, T14N R 65W; Laramie County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the water distribution system in accordance with Chapter 12, Section 14 of the Water Quality Division Rules and Regulations, the sewage collection system in accordance with Chapter 11, Section 9 of the Water Quality Division Rules and Regulations, and both systems in accordance with the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by July 12, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. **11-236** in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

Sincerely,

Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/rm/11-0647

Enclosure: Certificate of Completion  
cc: IPS, Cheyenne

Tyrone Carter, Astra Engineering, 7887 E. Belleview Ave., Suite 1100, Englewood, CO 80111  
Herman Noe, Cheyenne Board of Public Utilities, P.O. Box 1469, Cheyenne WY 82003





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 13, 2011

WyTex, Inc  
Ben Doud, President  
25528 Genesee Trail Road  
Golden, CO 80401

RE: Wilson Supply, Inc.  
Application No. 11-237, Laramie County

Dear Mr. Doud:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as installation of approximately 70 feet of 8 inch DIP water main, installation of 6 inch DIP fire line, installation one new fire hydrant, and installation of approximately 400 feet of 4 sanitary sewer service, NW ¼, Section 31, T14N R 65W; Laramie County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the water distribution system in accordance with Chapter 12, Section 14 of the Water Quality Division Rules and Regulations, the sewage collection system in accordance with Chapter 11, Section 9 of the Water Quality Division Rules and Regulations, and both systems in accordance with the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by July 13, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. 11-237 in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

Sincerely,

Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/rm/11-0653

Enclosure: Certificate of Completion  
cc: IPS, Cheyenne

Tyrone Carter, Astra Engineering, 7887 E. Bellevue Ave., Suite 1100, Englewood, CO 80111  
Herman Noe, Cheyenne Board of Public Utilities, P.O. Box 1469, Cheyenne WY 82003





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 27, 2011

Timothy J. Reed  
407 Mahoney  
Rawlins, WY 82301

RE: Reed Septic Tank Replacement & New Leachfield,  
Location: SW¼ Section 4, T24N, R84W,

Application No. **11-238**  
Carbon County

Dear Mr. Reed:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of a 1000 gallon, two compartment, polyethylene septic tank and about 76 feet of chamber type leachfield divided into two equal length trenches for a **2 bedroom mobile home** in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the small wastewater system in accordance with Chapter 25 of the Water Quality Division Rules and Regulations, the general permit, the conditions listed below, and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit. Additionally, the following project specific conditions also apply:

1. Septic Tank Clean-Out Riser Requirement - Either a 6 inch diameter clean-out riser or the manway **from each compartment of the septic tank must be extended to the ground surface.**
2. Polyethylene Septic Tank Installation Requirements - To ensure structural integrity, the **manufacturer's instructions** regarding bedding the tank and filling the tank with water during burial **must be followed during installation.** Additionally, immediately after clean-outs, the tank must be refilled with water according to the manufacturer's instructions to maintain structural integrity.
3. Minimum Spacing Between Leach Trenches - the **minimum spacing** between the two leachfield trenches **shall be a minimum of 3 feet of undisturbed soil** between the side walls of the trenches.

Herschler Building • 122 West 25th Street • Cheyenne, WY 82002 • <http://deq.state.wy.us>

ADMIN/OUTREACH (307) 777-7758 FAX 777-7682	ABANDONED MINES (307) 777-6145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5816	INDUSTRIAL SITING (307) 777-7369 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 777-5864	SOLID & HAZ. WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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The approval granted under this Notification Of Coverage and the General Permit shall expire on June 27, 2013. Please reference Application Number 11-238 in any future correspondence.

If you have any questions, please contact me at either [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov) or by phone at (307) 777-6183.

Sincerely,

A handwritten signature in cursive script that reads "Ronald L. Ewald".

Ronald L. Ewald  
Assistant Southeast District Engineer  
Southeast District, Water & Wastewater Section  
Water Quality Division

RLE/rm/11-0614

Enclosures: GENERAL PERMIT - Small Wastewater Facility  
Certificate of Completion

cc: IPS, Cheyenne  
Kristy Rowan, Carbon County Planning Office, Carbon Building, 215 West  
Buffalo Street, Suite 336, Rawlins, Wyoming 82301



# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 8, 2011

Keith Haiar  
PO Box 332  
Beulah, WY 82712

RE: Haiar Residential Small Wastewater System, Crook County  
Location: NE ¼ SE ¼, Section 4, T52N, Range 60W; Permit # 11-239

Dear Mr. Haiar:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install, or modify the facility in accordance with general permit and the materials submitted in your application package. The General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage, [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

Additionally, the following permit condition applies:

1. Cleanouts are required every 100 feet and at all changes in direction 22.5 degrees and greater, both horizontal and vertical. This requirement includes both the pipeline from the house to the septic tank and from the septic tank to the leachfield.
2. Either a 6-inch diameter clean-out riser or a manway from each compartment of the septic tank must be extended to the ground surface from all septic tanks.

Please be advised that Crook County inspects all small wastewater systems permitted through WDEQ. Please contact Crook County Growth and Development at 307.283.4548 to arrange an inspection of the system. **Septic systems shall not be installed during adverse weather. This includes rain, snow, severely cold temperatures, or excessively moist soils.** Please contact me with questions at 307.777.6941.

Sincerely,

Suzanne Engels  
WDEQ/WQD

SE/rm/11-0637

cc: IPS, Cheyenne  
WYDEQ Casper File  
Tim Lyons, Crook County Growth and Development, PO Box 848, Sundance, WY 82729





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 12, 2011

Doris Morrison  
1955 State Hwy 130  
Saratoga, WY 82331

RE: Morrison Residential Septic System,  
Location: SW¼ Section 1, T17N, R84W,

Application No. **11-240**  
Carbon County

Dear Ms. Morrison:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of a 1500 gallon, two compartment polyethylene septic tank and about 126 feet of chamber bed type leachfield divided into six equal length lines of 21 feet each in an 18 foot by 21 foot area for a **3 bedroom house** in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the small wastewater system in accordance with Chapter 25 of the Water Quality Division Rules and Regulations, the general permit, the conditions listed below, and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the general permit. Additionally, the following project specific conditions also apply:

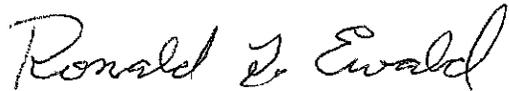
1. Septic Tank Clean-Out Riser Requirement - Either a 6 inch diameter clean-out riser or the manway from **each compartment of the septic tank** must be extended to the ground surface.
2. Polyethylene Septic Tank Installation Requirements - To ensure structural integrity, the **manufacturer's instructions** regarding bedding the tank and filling the tank with water during burial **must be followed during installation**. Additionally, immediately after clean-outs, the tank must be refilled with water according to the manufacturer's instructions to maintain structural integrity.



The approval granted under this Notification Of Coverage and the General Permit shall expire on July 12, 2013. Please reference Application Number 11-240 in any future correspondence.

If you have any questions, please contact me at [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov) or (307) 777-6183.

Sincerely,



Ronald L. Ewald  
Assistant Southeast District Engineer  
Southeast District, Water & Wastewater Section  
Water Quality Division

RLE/rm/11-0646

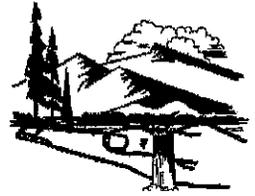
Enclosures: GENERAL PERMIT - Small Wastewater Facility  
Certificate of Completion

cc: IPS, Cheyenne  
Kristy Rowan, Carbon County Planning Office, Carbon Building, 215 West  
Buffalo Street, Suite 336, Rawlins, Wyoming 82301  
Eagle Plumbing & Construction, 1624 E. Murray Street, Rawlins, WY 82301



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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 12, 2011

City of Laramie  
Cal Van Zee, Utility Manager  
P.O. Box C  
Laramie, WY 82070

RE: 2011 Collection Rehabilitation Project  
Application No. 11- 241, Albany County

Dear Mr. Cal Van Zee:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as installation approximately 60 ft of 6 inch PVC C-900 water main, installation approximately 920 ft of 8 inch PVC water main, installation of two new fire hydrants, installation of approximately 20 feet of 6 inch PVC SDR35 sanitary sewer main, installation of approximately 640 feet of 8 inch PVC SDR35 sanitary sewer main and installation of 4 (48 inch) new manholes, SW ¼, Section 33, T16N R 73W; NW ¼ Section 3, T15N R 73W; Albany County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the water distribution system in accordance with Chapter 12, Section 14 of the Water Quality Division Rules and Regulations, the sewage collection system in accordance with Chapter 11, Section 9 of the Water Quality Division Rules and Regulations, and both systems in accordance with the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by July 12, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. 11- 241 in any future correspondence. If you have any questions, please contact me at 307-777-7075.

Sincerely,

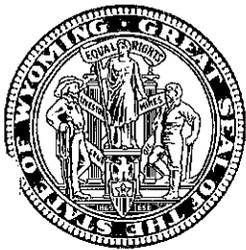
Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/rm/11-0645

Enclosure: Certificate of Completion

cc: IPS, Cheyenne  
Nancy Roof, AMEC Earth and Environmental, Laramie, WY 82070





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 13, 2011

Sam Vieyra, Mayor  
Town of Rock River  
P.O. Box 280  
Rock River, WY 82083

RE: Rock River Water System Improvements  
Application No. 11-242, Albany County

Dear Mr. Vieyra:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as installation of approximately 7000 feet of 6 inch PVC C-900 water main, installation of four new fire hydrants, SE ¼ SE ¼ Section 31, T21N R 76W; SW ¼ SW ¼ Section 32, T21N R 76W and SE ¼ NW ¼ Section 6, T20N R 76W; Albany County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the water distribution system in accordance with Chapter 12, Section 14 of the Water Quality Division Rules and Regulations, the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by July 13, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. 11-242 in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

Sincerely,

Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/rm/11-0651

Enclosure: Certificate of Completion  
cc: IPS, Cheyenne  
Lynn Hill, Dowl HKM, P.O. Box 70, Laramie, WY 82072





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 29, 2011

Charles Weinreis  
PO Box 367  
Minatare, NE 69356

RE: Weinreis Residential Small Wastewater System, Crook County  
Location: NE ¼ Section 17, T52N, Range 62W; Permit # 11-243

Dear Mr. Weinreis:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install, or modify the facility in accordance with general permit and the materials submitted in your application package. The General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage, [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

Additionally, the following permit condition applies:

1. Cleanouts are required every 100 feet and at all changes in direction 22.5 degrees and greater, both horizontal and vertical. This requirement includes both the pipeline from the house to the septic tank and from the septic tank to the leachfield.
2. Either a 6-inch diameter clean-out riser or a manway from each compartment of the septic tank must be extended to the ground surface from all septic tanks.

Please be advised that Crook County inspects all small wastewater systems permitted through WDEQ. Please contact Crook County Growth and Development at 307.283.4548 to arrange an inspection of the system. **Septic systems shall not be installed during adverse weather. This includes rain, snow, severely cold temperatures, or excessively moist soils.** Please contact me with questions at 307.777.6941.

Sincerely,

Suzanne Engels  
WDEQ/WQD

SE/rm/11-0621

cc: IPS, Cheyenne  
WYDEQ Casper File  
Tim Lyons, Crook County Growth and Development, PO Box 848, Sundance, WY 82729  
RL Construction, 23851 HWY 385, Hill City, SD 57745





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 28, 2011

John Vilkaitis  
207 Missouri Butte  
Hulett, WY 82720

RE: Vilkaitis Residential Small Wastewater System, Crook County  
Location: SE ¼ SE ¼, Section 19, T54N, Range 66W; Permit # 11-244

Dear Mr. Vilkaitis:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install, or modify the facility in accordance with general permit and the materials submitted in your application package. The General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage, [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

Additionally, the following permit condition applies:

1. Cleanouts are required every 100 feet and at all changes in direction 22.5 degrees and greater, both horizontal and vertical. This requirement includes both the pipeline from the house to the septic tank and from the septic tank to the leachfield.
2. Either a 6-inch diameter clean-out riser or a manway from each compartment of the septic tank must be extended to the ground surface from all septic tanks.

Please be advised that Crook County inspects all small wastewater systems permitted through WDEQ. Please contact Crook County Growth and Development at 307.283.4548 to arrange an inspection of the system. **Septic systems shall not be installed during adverse weather. This includes rain, snow, severely cold temperatures, or excessively moist soils.** Please contact me with questions at 307.777.6941.

Sincerely,

Suzanne Engels  
WDEQ/WQD

SE/rm/11-0617

cc: IPS, Cheyenne  
WYDEQ Casper File  
Tim Lyons, Crook County Growth and Development, PO Box 848, Sundance, WY 82729  
Randy Gantz, Gantz Backhoe Service, PO Box 280, Hulett, WY 82720





# Department of Environmental Quality



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Matt Mead, Governor

John Corre, Director

## NOTIFICATION OF COVERAGE

July 15, 2011

Ben Doud  
Big Black Dog, LLC  
25528 Genesee Trail Road  
Golden, CO 80401

RE: Rock Springs - Exterran Fire Hydrant 1703 Cameron Road - Permit Number 11-246R, SE ¼ SE ¼ Section 5, T18N, R105W, Sweetwater County

Dear Mr. Doud:

The above application for coverage under General Permit to Construct the extension of a public water supply distribution system consisting of a 6-inch PVC fire hydrant lead in accordance with Chapter 3, Section 7, Chapter 12, Section 14 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, the facility in accordance with the general permit and the materials submitted in your application package. Your attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the General Permit. These General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage. The General Permits can be found under the Water Quality Division Water and Wastewater Program, Engineering and Technical Services at :

[http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

If you have any questions, please contact me at 307-332-3144.

Sincerely,

Mark Baron, P.E.  
Southwest District Engineer  
Water Quality Division

PDF to Cheyenne  
Gene Legerski, P.E., Choice Engineering Services, 404 North Street, Suite 201, Rock Springs, WY 82901

Page 1 of 1

Lander Field Office • 510 Meadowview Drive • Lander, WY 82520 • <http://deq.state.wy.us>

ABANDONED MINES  
(307) 332-5085  
FAX 332-7726

AIR QUALITY  
(307) 332-6755  
FAX 332-7726

LAND QUALITY  
(307) 332-3047  
FAX 332-7726

SOLID & HAZARDOUS WASTE  
(307) 332-6924  
FAX 332-7726

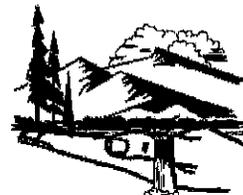
WATER QUALITY  
(307) 332-3144  
FAX 332-7726





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

June 30, 2011

Melvin Snook  
273 Little Missouri River Road  
Hulett, WY 82720

RE: Snook Residential Small Wastewater System, Crook County  
Location: SW ¼ SW ¼, Section 20, T55N, Range 67W; Permit # 11-247

Dear Mr. Snook:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install, or modify the facility in accordance with general permit and the materials submitted in your application package. The General Permit requirements can be downloaded from the Wyoming Department of Environmental Quality webpage, [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp)

Additionally, the following permit condition applies:

1. Cleanouts are required every 100 feet and at all changes in direction 22.5 degrees and greater, both horizontal and vertical. This requirement includes both the pipeline from the house to the septic tank and from the septic tank to the leachfield.
2. Either a 6-inch diameter clean-out riser or a manway from each compartment of the septic tank must be extended to the ground surface from all septic tanks.

Please be advised that Crook County inspects all small wastewater systems permitted through WDEQ. Please contact Crook County Growth and Development at 307.283.4548 to arrange an inspection of the system. **Septic systems shall not be installed during adverse weather. This includes rain, snow, severely cold temperatures, or excessively moist soils.** Please contact me with questions at 307.777.6941.

Sincerely,

Suzanne Engels  
WDEQ/WQD

SE/rm/11-0625

cc: IPS, Cheyenne  
WYDEQ Casper File  
Tim Lyons, Crook County Growth and Development, PO Box 848, Sundance, WY 82729  
Randy Gantz, Gantz Backhoe Service, PO Box 280, Hulett, WY 82720





# Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 18, 2011

John Volk  
222 E 18<sup>th</sup> Street  
Cheyenne WY 82001

RE: Hutchins Drive Access Water Extension  
Application No. 11-248, Laramie County

Dear Mr. Volk:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as installation of approximately 210 feet of 12 inch PVC water main , installation of approximately 185 feet of 8 inch PVC water main , SW ¼ Section 31, T14N, R65W; Laramie County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the water distribution system in accordance with Chapter 12, Section 14 of the Water Quality Division Rules and Regulations, the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by July 28, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No.11-248 in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

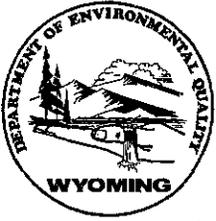
Sincerely,

Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/rm/11-0667

cc: IPS, Cheyenne  
Hermae Noe, Cheyenne Board of Public Utilities, P.O. Box 1469, Cheyenne WY 82003  
Bruce Perryman, AVI, p.c., 2035 Westland Road, Cheyenne, WY 82001





WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
"AS-BUILT" PERMIT TO CONSTRUCT

PERMIT NO. 11-249  
REFERENCE PERMIT NO. 05-181

Kline Draw POD

This permit hereby authorizes the applicant:

Benchmark Energy, LLC  
Attn.: Mr. Merle McClure  
P. O. Box 8747  
Pratt, KS 67124

to have installed one (1) compliance monitoring well, previously permitted as 05-181, according to the procedures and conditions of the application number 11-249. The well is proximal to an on-channel coalbed methane produced water impoundment located in Township 56N, Range 75W, Section 8, in the County of Campbell, in the State of Wyoming. All construction, installation, or modification allowed by this permit has been completed.

The issuance of this permit confirms that the Wyoming Department of Environmental Quality (WDEQ) has evaluated the application submitted by the permittee and determined that it meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the engineer's design are the responsibility of the permittee, owner, and operator.

Nothing in this permit constitutes an endorsement by WDEQ of the construction or the design of the facility described herein. This permit verifies only that the submitted application meets the design and construction standards imposed by Wyoming statutes, rules and regulations. The WDEQ assumes no liability for, and does not in any way guarantee or warrant the performance or operation of the permitted facility. The permittee, owner and operator are solely responsible for any liability arising from the construction or operation of the permitted facility. By issuing this permit, the State of Wyoming does not waive its sovereign immunity.

The permittee shall allow authorized representatives from WDEQ to enter and inspect any property, premise or place on or at which the facility is located or is being constructed or installed for the purpose of investigating actual or potential sources of water pollution, and for determining compliance or non-compliance with any rules, regulations, standards, permits or orders.

Nothing in this permit shall be construed to preclude the institution of any legal action or other proceeding to enforce any applicable provision of law or rules and regulations. It is the duty of the permittee, owner and operator to comply with all applicable federal, state and local laws or regulations in the exercise of its activities authorized by this permit.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

The permittee shall operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions:

1 of 4 The applicant will provide immediate oral or written notice to the Wyoming Department of Environmental Quality/Water Quality Division, Groundwater Section, 2100 West 5<sup>th</sup> St., Sheridan, WY 82801, 307-673-9337, fax 307-672-2213, in accordance with the provisions of Section 11, Chapter 3, Wyoming Water Quality Rules and Regulations of any changes or modifications which are not consistent with the terms and conditions of this permit.

2 of 4 Monitoring Requirements:

Unless otherwise specified, monitoring and reporting of the groundwater beneath the impoundment shall be performed on a quarterly basis until further notice and shall include the following information:

- Measurement of static water elevation in monitoring well: North MW-01;
- Sampling and analysis of groundwater in down-gradient monitoring well: North MW-01;
- The parameters listed in the table below are required for groundwater compliance monitoring beneath the listed impoundment:

Kline Draw #1		
Parameter	North MW-01 Background Value (mg/L) (12/08/2004)	Class III Water Quality Standards (mg/L)
Selenium	ND	0.05
Sulfate	882	3000
TDS	1840	5000
pH	6.97	6.5 – 8.5 (s.u)

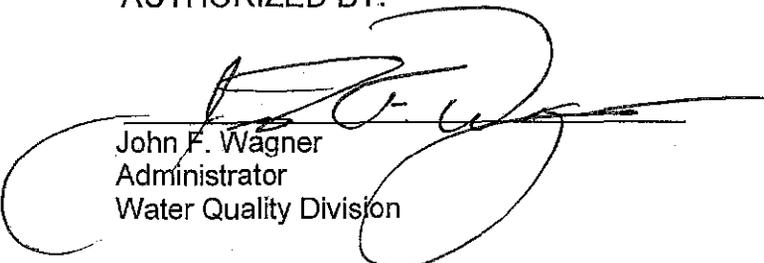
- Reporting results of quarterly monitoring and sampling are due to the department by January 15<sup>th</sup>, April 15<sup>th</sup>, July 15<sup>th</sup> and October 15<sup>th</sup> of each year. Samples may be collected at any time during the reporting period, but must be scheduled such that sampling events occur approximately three months apart;
- If a groundwater monitoring event reveals a pH measurement of 6.5 or less, the DEQ may require sampling and analysis of groundwater for the following additional parameters: aluminum, boron, cadmium, chromium, copper, lead and zinc.
- The analytical results for each sampling event, along with impoundment and monitor well location information must be submitted in the Excel spread sheet "Compliance Monitoring Data Reporting", which can be found on the WDEQ website at the following

address: (<http://deq.state.wy.us/wqd/groundwater/pollution.asp>). These data shall be submitted electronically on the due dates established above to the following department address: DEQ-CBMGroundwater@WYO.GOV. In addition, the accompanying analytical laboratory reports and field documentation must also be submitted either electronically (pdf format) or hard copy via mail to the WDEQ, Sheridan office at the address listed above.

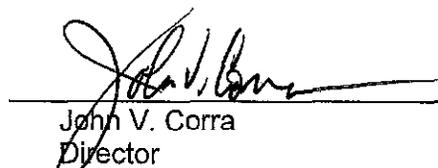
3 of 4 The WDEQ may require a more frequent sampling schedule based on results of groundwater monitoring data analyses.

4 of 4 Any exceedence of the water quality standards listed above will be considered a violation of this permit. If an exceedence of groundwater standards occurs as a result of the operation of the impoundment, the WDEQ may require a more frequent monitoring schedule, further investigation of the groundwater impacts, remediation of the groundwater impacts, and cessation of discharge into the impoundment.

AUTHORIZED BY:



John F. Wagner  
Administrator  
Water Quality Division



John V. Corra  
Director  
Department of Environmental Quality

7-27-11  
Date of Issuance

CS/rm/11-0699

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY/WATER QUALITY DIVISION  
Chapter 3 PERMIT TO CONSTRUCT TRANSFER REQUEST

Water Quality Division, Department of Environmental Quality  
122 West 25th Street  
Herschler Building, 4W  
Cheyenne, WY 82002

Date 6-27-2011

The Termo Company intends to transfer ownership of the facility  
(Original Owner of Record)  
Groundwater Monitoring Well associated with Permit # 05-181  
(Facility Name or description)  
to Benchmark Energy LLC on 6-27-2011  
(New Owner of Record) (Date)

It is requested that the said permit be transferred to the new owner in accordance with Section 12 of Chapter 3, Wyoming, Water Quality Rules and Regulations. The new owner agrees to accept and be bound by the provisions of the new (transferred) permit and any amendments, agrees to construct and operate the facility in accordance with the approved permit, and agrees to accept responsibility for the facility's compliance with applicable standards and permit conditions, including the responsibility to perform any necessary corrective actions.

The original owner shall retain responsibility for the facility according to the terms of the original permit until the application for permit transfer is approved by the Administrator.

Daniel Murry  
Signature of Original Owner's Representative  
(A certified copy of a recorded document transferring ownership of the real estate may be accepted in lieu of the signature of the original owner.)

Name and Title Daniel Murry  
Engineering Tech  
(Please Print)

Company Name The Termo  
COMPANY

Address P.O. Box 7297  
Gillette WY 82717

Telephone 307-686-3688

Merle L. McClure  
Signature of New Owner's Representative

Name and Title Merle L. McClure  
Area Representative  
(Please Print)

Company Name Benchmark  
Energy LLC

Address P.O. Box 8747  
Pratt, KS 67124

Telephone 620-672-9700



# Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead, Governor

John Corra, Director

## NOTIFICATION OF COVERAGE

July 25, 2011

Jeff Pecenka  
Cheyenne Board of Public Utilities  
P.O. Box 1469  
Cheyenne WY 82003

RE: 2012 Dry Creek Lining Projects,  
Application No. **11-250**, Laramie County

Dear Mr. Pecenka:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Public Water Supply Distribution Systems and or Existing Sewage Collection Systems described as Sewer Rehabilitation for City of Cheyenne. This project is annual sewer main lining (CIPP lining) for approximately 3300 feet of 10 inch sewer main from Yellowstone to Mylar Park as well as rehabilitation of manholes, NW ¼ SE ¼, Section 19, T14N, R66W; Laramie County, in accordance with Chapter 3, Section 9 of the Wyoming Water Quality Rules and Regulations has been reviewed and is hereby approved. You are authorized to construct, install or modify the sewage collection system in accordance with Chapter 11, Section 9 of the Water Quality Division Rules and Regulations, the general permit and the materials submitted in your application package. All construction, installation, or modification allowed by this notification of coverage shall be completed by July 25, 2013.

This **Notice of Coverage** is covered under the General Permits on the Wyoming Department of Environmental Quality webpage. The General Permits can be viewed at the following path: [http://deq.state.wy.us/wqd/www/Permitting/Pages/general\\_permits.asp](http://deq.state.wy.us/wqd/www/Permitting/Pages/general_permits.asp). Please reference Application No. **11-250** in any future correspondence.

If you have any questions, please contact me at 307-777-7075.

Sincerely,

Richard R. Cripe PE  
Southeast District Engineer  
Water Quality Division

RRC/rm/11-0698

cc: IPS, Cheyenne  
Jeff Pecenka, BOPU, P.O. Box 1469, Cheyenne, WY 82001





# Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead, Governor

John Corra, Director

November 10, 2011

Donna J. Crandall  
P.O. Box 861  
Pine Bluffs, WY 82082

RE: **Application Withdrawn Number: 11-251**  
**Action:** Application Returned – Project Cancelled by Owner  
**Facility:** Crandall Recreational Mountain Lot – Holding Tank  
**Location:** Block #5, Lots 3-6, White Rock Estates,

Carbon County

Dear Ms. Crandall:

On September 27, 2011 the Water Quality Division(WQD) received a letter from your contractor, Bird-O'Donnell Construction, stating that this project had been cancelled by the owner. Therefore, your application package is being returned to you with the **Action: Not Authorized For Construction**, as the result of our WQD review comments dated July 22, 2011.

This project **has not been permitted**. Construction of this facility without a permit is a violation of the Environmental Quality Act and is punishable with fines not to exceed \$10,000 per day of violation. If you wish to reconsider construction of this facility, then the application process must be started over and the application procedures pursuant to Chapter 3 of the Wyoming Water Quality Rules and Regulations must be followed.

If you should have any questions, please contact Ronald Ewald at either [ron.ewald@wyo.gov](mailto:ron.ewald@wyo.gov) or (307) 777-6183. Please be reminded that the WQD could show up anytime in the future to verify that this facility has not been constructed without a permit.

Sincerely,

Ronald L. Ewald  
Southeast District Assistant Engineer  
Water Quality Division

RLE/rm/11-0996

Enclosures: Application Package 11-251  
Copy of review comments dated July 22, 2011  
Bird-O'Donnell Project Cancellation letter

