



The State
of Wyoming



Department of Environmental Quality

Dave Freudenthal, Governor

John Corra, Director

152 N. Durbin Street • Suite 100 • Casper, Wyoming 82601

NOTIFICATION OF COVERAGE

July 9, 2010

Andrew Beamer, P.E.
City of Casper
200 North David Street
Casper, WY 82601

RE: 2010 Arterial and Collector Streets Reconstruction -- Sanitary Sewer Main Replacement,
City of Casper, WDEQ #10-251

Dear Mr. Beamer:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modification of Existing Sewage Collection Systems in accordance with Chapter 3 and 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(ies) in accordance with the general permits 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

If you have any questions, please contact me at 307-473-3478.

Sincerely,

Karen L. Farley, P.E.
Northeast District Engineer, Water Quality Division

Enclosures: Certificate of Completion

cc: Scott R. Baxter, P.E., City of Casper, 200 North David, Casper, WY 82601
WDEQ File
IPS





Department of Environmental Quality



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

Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 20, 2010

Ben Kennedy
P.O. Box 76
Elk Mountain, WY 82324

RE: Ben Kennedy Home Residential Septic System,
Location: S½, Section 24, T20N, R81W,

Application No. **10-252**
Carbon County

Dear Mr. Kennedy:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of a 1000 gallon polyethylene septic tank and a chamber leachfield 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 11, Part D 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>

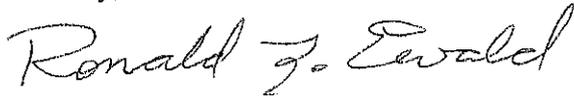
ADMIN/OUTREACH (307) 777-7937 FAX 777-3610	ABANDONED MINES (307) 777-6145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7369 FAX 777-5973	LAND QUALITY (307) 777-7756 FAX 777-5864	SOLID & HAZ. WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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The approval granted under this Notification Of Coverage and the General Permit shall expire on July 20, 2012. Please reference Application Number 10-252 in any future correspondence.

If you have any questions, please contact me at either rewald@wyo.gov or (307) 777-6183.

Sincerely,



Ronald L. Ewald
Project Engineer
Southeast District, Water Quality Division

RLE/rm/10-0629

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: Ben Kennedy Home Residential Septic System
LOCATION: S½, Section 24, T20N, R81W, Carbon County
ENGINEER: None
APPLICANT: Ben Kennedy
P.O. Box 76
Elk Mountain, Wyoming 82324
Ph: (307) 353-0822

WATER QUALITY DIVISION REFERENCE #:

10-252

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

DATE OF REVIEW: June 24, 2010



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. Shallow Impermeable Soil Layer to be Avoided - the application indicates that spread over a wide area of the site where the house and septic system are to be located, a subsurface clay layer exists at depths varying from about 4½ feet to 9 feet. From additional phone conversations I had with Jeff Waldbauer of *Brentlee Homes*, he added the following details. There is a thin layer of water on top of the clay layer which appears to be surface water infiltration. The thickness of the water

on top of the clay seems to be uniform at about ½ inch or less. This water appears to be moving off horizontally with the slope of the clay, and is not accumulating. He indicates that there is probably a large enough area to build a leachfield over an area where the clay layer is consistently 7½, 8, or 9 feet deep.

If this is the case, then a conventional gravity septic system should be possible. Therefore, the area extending to 3 feet outside of the boundaries of **the leachfield SHALL be located on the site such that within the area the clay layer is at least 7½ feet below the ground surface.**

2. Septic Tank Placement - **the septic tank SHALL be placed at a depth such that the bottom of the tank will not be in the groundwater layer on top of the clay layer.** This could create upward "flotation" pressure on a non-concrete tank.
3. Leachfield Sizing Calculations Must be Completed - the minimum required size for the leachfield was not calculated. To complete the sizing calculations first complete item "D.3." on page 3; then complete all of section "E.4." on page 5. From the information that was supplied it appears that you are planning to use *Biodiffuser* brand (previously ADS) Model ARC 36 chamber units to construct the leachfield. Please see the Equivalent Area table attached to find the correct equivalent area for this chamber in a trench layout (34.7 sf/unit). After calculating the minimum number of chamber units that will be needed, select a leachfield design in item "E.4.f." and complete the appropriate detail sheet that goes with it. **All minimum leachfield sizing requirement calculations SHALL be completed.**
4. Leachfield Layout and Cross-section Detail Sheet - an appropriate **detail sheet for the chosen leachfield design SHALL be completed.** The cross-section is especially important, as is the depth to the clay layer below the bottom of the trench.

RLE/rm/10-0547

Enclosures: Equivalent Area table for Chamber Units
Blank Worksheets & Detail Sheets to rework or complete
Original application package (1 copy) – for reference

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

PERMIT NO. 10-254R

NOV & Order Docket No. 4626-10

SALL Enterprises Septic Tank and Leach Field

This permit hereby authorizes the applicant:

SALL Enterprises, LLC
Carla Stone
P.O. Box 3189
Alpine, WY 83128

to have constructed a septic tank and leach field replacement to serve the Greys River Tavern and 14 RV sites, (a Shower/Bathroom Facility is also connected to leach field but has a separate septic tank), according to the procedures and conditions of the application number 10-254R. The facility is located at NW ¼ SE ¼ Section 29, T36N, R119W in the county of Lincoln, in the State of Wyoming. The construction, installation, or modification allowed by this permit was completed around the date of April 6, 2007 for the septic tank and around the date of July 25, 2008 for the leach field.

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.

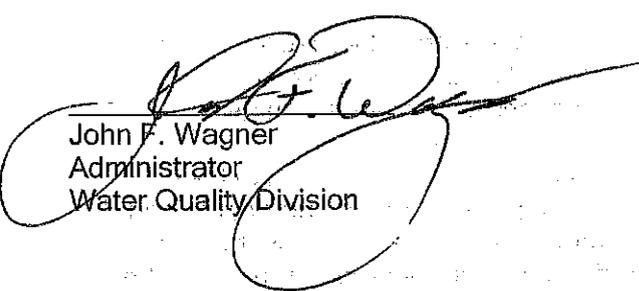
The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

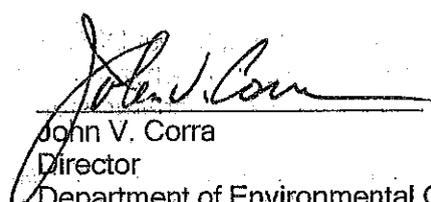
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization 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 2 The applicant will provide immediate oral or written notice to the Wyoming Department of Environmental Quality, Water Quality Division (WQD), Southwest District Engineer, 510 Meadow View Drive, Lander, WY 82520, 307-332-3144, FAX 307-332-3183, 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 2 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

7/6/10
Date of Issuance

MDB/rm/10-0560

STATEMENT OF BASIS

1. Permit Number: 10-254R
2. Application reviewed for compliance with the following 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. If a Section 17 of Chapter 3 review is required indicate the basis for determining groundwater will be protected.
Not Required.
5. Documentation of Statement of Basis: The archive file for this permit includes adequate documentation of all sections of this Statement of Basis.

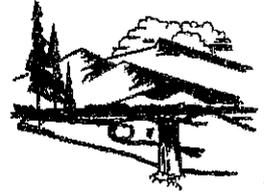
CERTIFICATION

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 Mark D. Baron, P.E., mbaron@wyo.gov, Southwest District Engineer and completed on June 25, 2010. 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."

cc: Deb Wolfley, Town of Alpine, P.O. Box 3070, Alpine, WY 83128
Jody Tibbitts, Town of Alpine, P.O. Box 3070, Alpine, WY 83128
Robert T. Ablondi, P.E., Rendezvous Engineering, P.C., P.O. Box 4858, Jackson, WY 83001



Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

July 20, 2010

Chairman
Teton County Board of Commissioners
P. O. Box 3594
Jackson, WY 83001

RE: PGK Playland Subdivision, WDEQ Application #10-255

Dear Mr. Chairman:

The Wyoming Department of Environmental Quality (WDEQ) has completed the review of the above referenced subdivision pursuant to W.S. 18-5-306. This letter constitutes our conclusions regarding the feasibility of the proposed water and sewage systems pursuant to the W.S. 18-5-306 (c). The State Engineer's Office (SOE) letter has been received by our office. We acknowledge that the State Engineer's Office is generally not supportive of the subdivision.

Findings As To The Safety And Adequacy Of The Proposed Sewage System

The parcel is located 4.5 miles northwest of Jackson at 3250 West Sundance Drive. The Parcel lies on the west bank of the Snake River. The proposed subdivision would be created by dividing a 33.67 acre parcel into two smaller parcels of unspecified size. The groundwater depths are shallow throughout the parcel so that leachfields must be mounded. Enhanced small wastewater treatment facilities will be required for this subdivision due to the fact that the distance for a 2-year groundwater time is greater than the dimension of the subdivision in the down gradient dimension.

Since Teton County has been delegated by the department to issue small wastewater system permits, it is the county's responsibility to ensure, prior to issuing the permits, that all permit requirements and design standards will be met. A low profile septic tank system in conjunction with a chambered bed infiltration system which is underlain by 6 inches of filter sand and graded gravel has been designed for the subdivision. WDEQ has reviewed the engineering design drawings and concurs with them. Teton County may still involve WDEQ with the small wastewater permit process.

Findings As To The Safety And Adequacy Of The Proposed Water System

Individual existing wells with production rates near between 8 and 450 gpm are available for the proposed subdivision. The proposed area is known to have a strong aquifer with good quality

F:\DIVISION\WQD\W&WW Section\Subdivisions\NW Subdivision Reviews\Teton\PGK Playland\10-255 Subdivision Review.doc

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ABANDONED MINES
(307) 332-5085

AIR QUALITY
(307) 332-6755

LAND QUALITY
(307) 332-3047

SOLID & HAZARDOUS WASTE
(307) 332-6924

WATER QUALITY
(307) 332-3144



water. However, per the State Engineer's Office review letter, "further water right action on the part of the subdivider or his agent in addressing Wyoming Statute 18-5-306(a)(xi) is required."

Conclusion(s):

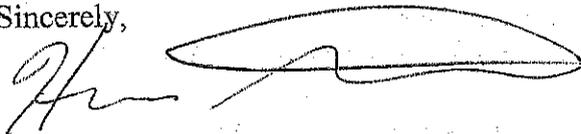
The Department of Environmental Quality has no "adverse" recommendations on this proposed subdivision.

Disclaimer

Nothing in WDEQ's recommendations or comments regarding the subdivider's proposal shall be construed to relieve the subdivider of their obligation to obtain any permits or additional approval from any local state or federal agencies/entities as required by law, rules and regulations, or ordinance. Nothing in these recommendations commits the WDEQ or the delegated county to the issuance of required permits for construction, operation, or modification of water supply and/or wastewater systems. It is the duty of the subdivider/developer to comply with all applicable federal, state and local requirements.

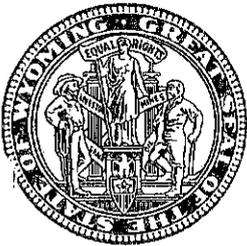
Please do not hesitate to contact me at (307) 335-6964 if you have any questions on the recommendations or need any assistance on how to proceed with this application.

Sincerely,



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

cc: Philip Gyr, Nelson Engineering, P.O. Box 1599, 430 South Cache, Jackson, WY 83001
Mike Ebsen, State Engineer's Office, Herschler Building, 4-E, Cheyenne, WY 82002
Planning Director, Teton County Planning Department, P.O. Box 1727, Jackson, WY 83001
Ray Shriver, Teton County Engineering Department, P.O. Box 3594, Jackson, WY 83001
DEQ Subdivision File



Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

June 23, 2010

Jay Moore, Environmental Manager
PO Box 244
Jackson, MN 56143

RE: New Fashion Pork – Monitoring Wells
Application No. 10-256, Laramie County

Dear Mr. Moore:

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 two monitoring wells to provide water supply, monitoring of groundwater down gradient of lagoon and potentially operate to capture impacted groundwater, NW ¼ SE ¼, Section 26, T17N R 62W; 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 11, Section G 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 23, 2012.

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. Please reference Application No. 10-256 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/10-0541

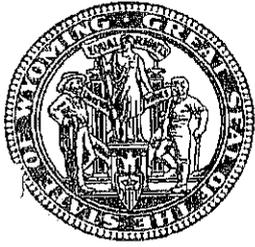
Enclosure: Certificate of Completion

cc: IPS, Cheyenne
Thomas G. Michel, Hydro-Engineering, 4685 East Magnolia, Casper, Wyoming 82604

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Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

August 9, 2010

Kelly Heiner
Bedford Water and Sewer District
4436 Main Street
Bedford, WY 83112

RE: Bedford Looping Waterline Project, Permit #10-257R, W1/2 Sec 18, N1/2 Sec 19, T34N, R118W, Lincoln County

Dear Mr. Heiner:

The above application for coverage under General Permits to Construct about 23,000 linear feet of mostly 8 inch PVC water transmission line with pressure reducing stations and other appurtances producing a looped system to be constructed 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 facilities in accordance with the general permits and the materials submitted in your application package. Your request for a variance to increase isolation valve spacing from 800 to 1600 feet because of low density of residential properties is granted. Attention is directed to the mandatory reporting requirements outlined in Part V, Section O of the General Permits. 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

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

Sincerely,

Perry Roberson
Project Engineer
Water Quality Division

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

xc: IPS, Cheyenne
D. Shay Smith P.E. Forsgren Associates Inc., 849 Front Street, Suite 201, Evanston, WY 82930

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

AIR QUALITY
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FAX 332-7726

LAND QUALITY
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FAX 332-7726

SOLID & HAZARDOUS WASTE
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FAX 332-7726

WATER QUALITY
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FAX 332-7726





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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 2, 2010

Steve Gentry
#2 Cold Creek Road
Moorcroft, WY 82721

RE: Gentry Small Residential Wastewater System, Crook County
Location: SE ¼ NW ¼, Section 20, T50N, Range 66W;

Permit # 10-259

Dear Mr. Gentry:

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

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/10-0569

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

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John Corra, Director

NOTIFICATION OF COVERAGE

July 16, 2010

Marty Noonan
PO Box 1344
Sundance, WY 82729

RE: Noonan Small Residential Wastewater System, Crook County
Location: Sundance West Subdivision Lot 16 Block 3; Permit # 10-260

Dear Mr. Noonan:

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

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/10-0618

cc: IPS, Cheyenne
WYDEQ Casper File
Tim Lyons, Crook County Growth and Development, PO Box 848, Sundance, WY 82729
Wade Habeck, Timberline Services, PO Box 867, Sundance, WY 82729

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WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
PERMIT TO CONSTRUCT

PERMIT NO. 10-261

LARAMIE COUNTY ARCHER COMPLEX WASTEWATER SYSTEM

This permit hereby authorizes the applicant:

LARAMIE COUNTY
310 W 19TH STREET, SUITE 400
CHEYENNE, WY 82001

to construct, install or modify a 25,000 gallon Advantex recirculation tank, 3000 gallon dosing tank, septic tanks, STEP system, effluent force main lines, UV disinfection system, six Advantex ax100 filtration pods, 88,500 cubic feet lined pond with a 60 mil. Linear Low Density Polyethylene Geomembrane according to the procedures and conditions of the application number 10-261. The facility is located in Section 27, Section 28, T14N R65W; Laramie County, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed July 23, 2012.

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.

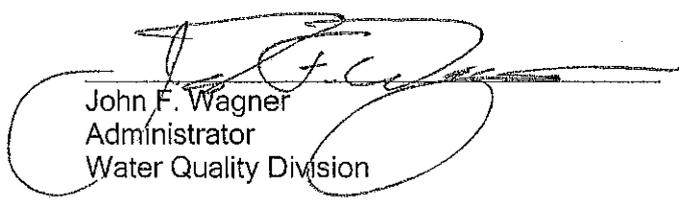
The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

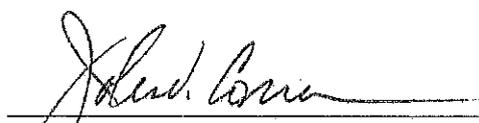
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization 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 An operation and maintenance manual for the wastewater system must be submitted to the Southeast District Engineer of the Water Quality Division for approval. The operation and maintenance manual for the wastewater system should meet the requirements of Section 24, Chapter 11, Wyoming Water Quality Rules and Regulations.
- 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 7/26/10

RRC/rm/10-0652

cc: Gary Grisgby, Western R.&D., 5908 Yellowstone Ave., Suite B, Cheyenne, WY 82009

STATEMENT OF BASIS

1. Permit Number: **10-261**
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. 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 26, 2010. 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."

STATE OF WYOMING
DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND INJECTION CONTROL PERMIT ISSUED UNDER
WYOMING WATER QUALITY RULES AND REGULATIONS
CHAPTER 13

CLASS I INJECTION WELL

(X) New
() Modified
County: Crook

Permit Number: 10-263
Previous Permits: none
UIC Facility Number: WYS-011-00031

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 (WQRR) Chapter 13 (Ch13).

Applicant:

Strata Energy, Inc.
406 W. 4th Street
Gillette, WY 82716
(307) 689-6080

Strata Energy, Inc., hereafter referred as the permittee, is authorized to construct and operate wells Ross DW No. 1, Ross DW No. 2, Ross DW No. 3, Ross DW No. 4, and Ross DW No. 5 according to the procedures and conditions of application 10-263 and to the requirements and other conditions of this permit. Issuance of this permit does not obligate the Department of Environmental Quality to approve injection if doing so would endanger human health or the environment or if the well does not comply with all the terms and conditions of this permit (Ch13, Sec 8(e)).

This is an individual area permit for wells Ross DW No. 1, 2, 3, 4, and 5. This permit shall become effective on the date of issuance and is valid for ten (10) years.

John Wagner, Administrator
Water Quality Division (307) 777-7781
Herschler Building 4-W, 122 West 25th Street
Cheyenne, WY 82002

Date

John V. Corra, Director
Department of Environmental Quality
Herschler Building 4-W, 122 West 25th Street
Cheyenne, WY 82002

Date

GDL/mm/11-0139

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A. Discharge Zones

The disposal wells are authorized to inject into the Flathead and Deadwood formations within the intervals specified in Table 1:

Table 1. Discharge Zone(s)

Well Name	Surface Elevation	Depth to Top of Discharge Zone	Depth to Bottom of Discharge Zone	Gross Discharge Zone Thickness	Well Depth
Ross DW No. 1, 2, 3, 4, 5	4,218 ft	8,163* ft	8,755* ft	592* ft	8,755* ft

*Estimated

Additional perforations in addition to those listed in the application may be installed within the intervals given above. Perforations above or below the intervals in Table 1 require the prior written approval of the Administrator.

The confining zone immediately above the discharge zone consists of approximately 52 feet of shale in the Icebox Shale. An additional confining zone immediately above the Icebox Shale is the Red River Formation which consists of 318-460 feet of cryptocrystalline to microcrystalline impermeable dolomite.

B. Well Locations and Areas of Review

The wells authorized by this permit are located as shown in Table 2:

Table 2. Well Location(s)

Well Name	Legal Description	Latitude*	Longitude*
ROSS DW No. 1	S18; T53N; R67W	44.5847	-104.9572
ROSS DW No. 2	S18; T53N; R67W	44.5774	-104.9467
ROSS DW No. 3	S19; T53N; R67W	44.5646	-104.9546
ROSS DW No. 4	S13; T53N; R68W	44.5719	-104.9648
ROSS DW No. 5	S13; T53N; R68W	44.5827	-104.9699

*NAD83 (meters)

Seven sections included in the Area of Review (Ch13, Sec 5(b)(iv)(E)) are listed in Table 3. Results of the area of review calculations (Ch13, Sec 5(b)(iv)) are shown in Table 4 (20 years of injection). The area of review is based on the larger of: the radius of a pure waste cylinder, the radius of the cone of influence, or the minimum radius (Ch13, Sec 5(b)(iv)).

Table 3. Legal Description(s) of the Area(s) of Review

Well Name	Quarter-Quarters	Section	Township	Range
Ross DW No. 1	S ½, SW ¼	7	53N	67W
	SW ¼, SE ¼	7	53N	67W
	N ½, NW ¼	18	53N	67W
	NW ¼, NE ¼	18	53N	67W
	SE ¼, NW ¼	18	53N	67W
Ross DW No. 2	S ½, NE ¼	18	53N	67W
	SW ¼	18	53N	67W
Ross DW No. 3	NW ¼	19	53N	67W
	N ½, SW ¼	19	53N	67W
	W ½, NE ¼	19	53N	67W
	NW ¼, SE ¼	19	53N	67W
Ross DW No. 4	SE ¼	13	53N	68W
	N ½, NE ¼	24	53N	68W
	NW ¼, NW ¼	19	53N	67W
	W ½, SW ¼	18	53N	67W
Ross DW No. 5	S ½, SE ¼	12	53N	68W
	NE ¼,	13	53N	68W

Table 4. Area of Review

	Ross DW No. 1-5
Radius of a Pure Waste Cylinder (ft)	1,037
Radius of the Cone of Influence (ft)	4*
Minimum Radius of Area of Review (ft)	1,320

There are no wells which penetrate the confining units of the proposed injection wells within the Areas of Review. Deep wells which are within the Areas of Review (Table 4) but do not penetrate the confining units are listed in Table 5. The Madison formation* is the lowermost USDW and is anticipated to be artesian in the area.

Table 5. Deep Wells Within the Area of Review

Well Name	API No.	Total Depth	Formation
Federal 44-13	49-011-20325	6,487	Minnelusa
Federal W-34679 33-18	49-011-20328	6,360	Minnelusa
Reynolds 22-19	49-011-20332	6,450	Minnelusa
Wesley 14-7-5	49-011-20856	6,401	Minnelusa
Wesley 34-7	49-011-22539	6,344	Minnelusa
Berger Fee 42-18	49-011-21701	6,398	Minnelusa

C. Groundwater Classification

The groundwater in the Flathead and Deadwood formations within 1,320 feet of each disposal well and with upper and lower boundaries defined by the discharge zone in Table 1 are classified as Class VI according to WQRR, Chapter 8. This classification was made for the following reason(s):

- The depth and location make use of the water economically and technologically impractical (WQRR Chapter 8, Section 4(d)(ix)(C)).

The permit application indicates that anticipated total dissolved solids within the Flathead and Deadwood formations will be greater than 10,000 TDS. However, due to the dearth of water quality information within the immediate vicinity of this facility (14-22 miles) the actual water quality of these formations will not be known until the wells are drilled.

Undifferentiated Precambrian igneous and metamorphic rocks exists below the Deadwood formation and effectively act as the lower confining unit.

D. Authorized Operations

Well Design – Injection shall be conducted through tubing which has been secured by a packer set below the top of the confining zone and within 500 feet of the top of the authorized discharge zone (Table 1) and within a zone of good quality cement bond (Ch13, Sec 9(d)(xxv)). The tubing shall be isolated from the long string casing by an annulus filled with corrosion-inhibiting fluid.

Injection Rates - Each well is allowed the maximum instantaneous injection rate shown in Table 7 provided that the surface pressure limitations are not exceeded. The permittee shall set an alarm or kill switch to prevent injection above the permitted rate.

Permitted Wastes - Wastes to be injected are described as follows:

- Liquid waste generated by uranium mining using in-situ leaching (as defined in the applicable Land Quality Division Permit to Mine) including operation bleed streams, yellowcake wash water, sand filter and ion exchange wash water, on-site laboratory waste water, reverse osmosis brine, groundwater restoration and groundwater sweep solutions, plant washdown water, wash waters used in cleaning or servicing the waste disposal system equipment, and storm water at the mine facilities, and

- Fluids produced during the drilling, completion, testing, or stimulation of wells or test holes related to mining operations; or during the workover or abandonment of any such well; and drilling equipment wash water.

North American Industry Classification System (NAICS) – 212291

The radionuclide-bearing waste produced at this facility by in-situ uranium mining has been defined by the Atomic Energy Act as Section 11e.(2) byproduct material and is regulated by the Nuclear Regulatory Commission (NRC) under Title 10 Code of Federal Regulations Part 40. It is not “solid waste” according to Title 40 Code of Federal Regulations Part 261.4(a)4 and is consequently not hazardous waste. Because Wyoming is a “non-agreement” state, the NRC retains jurisdiction over in-situ mining wastes and the permittee shall not use the injection wells for waste disposal without the proper NRC license.

Waste disposal is prohibited until the requirements for financial assurance (Section P) have been met.

The expected concentrations for selected chemical species in the waste are listed in Table 6.

Table 6. Estimated Water Quality of Discharge Sources

	Units	Minimum	Maximum
Sodium	mg/L	1,500	10,500
Calcium	mg/L	50	150
Arsenic	mg/L	<0.10	0.14
Potassium	mg/L	10	1,000
Bicarbonate	mg/L	1,000	7,500
Carbonate	mg/L	0	500
Selenium	mg/L	<0.10	0.13
Sulfate	mg/L	1,000	2,500
Chloride	mg/L	800	25,000
pH	s.u.	6.00	9.00
Total Dissolved Solids (TDS)	mg/L	4,000	40,000
Uranium as U ₃ O ₈	mg/L	5	25
²²⁶ Radium	pCi/L	400	2,500

Permission to discharge other non-hazardous waste may be authorized through a minor permit modification (Ch13, Sec 8(d)(v)). Additional monitoring may be required for additional waste types.

Permitted Corrosion Inhibitors, Anti-Scalants, and Biocides – Corrosion inhibitors, anti-scalants, and biocides may be added to the waste stream with the prior written approval of the Administrator.

Injection Pressure - The injection pressure in each injection well shall be limited to the fracture pressure of the receiver except as necessary during well stimulation approved by the Administrator (Ch13, Sec 9(d)(ii)). Permit limits for the existing wells and temporary limits for the proposed wells are listed in Table 7. The temporary limit applies until recalculation of the parameters in Table 7 following completion of a step-rate injection test. Exceeding the limiting

surface injection pressure (LSIP) in Table 7 or creating or propagating fractures within the receiver or confining zone once waste disposal has commenced are violations of this permit and shall be reported pursuant to Section K of this permit. A kill switch shall be installed on the injection tubing and set to preclude violations of LSIP limits.

For each proposed well, the permittee shall conduct a step-rate injection test within one year of permit issuance to determine the actual fracture pressure of the receiver (Ch13, Sec 9(d)(ii)). For wells which have not been constructed within one year of permit issuance, a step-rate injection test shall be required before waste injection is allowed. Such tests shall be conducted using both surface and down hole pressure gauges or transducers. The down hole device shall be placed within one hundred vertical feet of the packer. For a conclusive result, at least three of the injection rate steps below the fracture threshold will be colinear. Upon completion of the test, the permittee shall recalculate the maximum surface injection pressure (MSIP) and LSIP.

If the recalculated LSIP is greater than the temporary LSIP in Table 7, the permittee must obtain the approval of the Administrator before operating the well at a pressure above the temporary LSIP. If the recalculated LSIP is less than the temporary LSIP in Table 7, the permittee must cease injection and not restart discharge until the well head pressure can be maintained below the recalculated LSIP. The permittee may conduct additional step-rate injection tests at its discretion to refine estimates of MSIP as injection continues. Step-rate data, analyses, and interpretations shall be submitted to the Administrator within thirty days of completion of the test or with the next quarterly report, whichever is later.

Annulus Pressure – The annulus between the injection tubing and the long string casing shall be filled with a corrosion-inhibiting fluid and be monitored and maintained in a way that allows reliable leak detection. The annulus pressure shall be maintained within the limits set in Table 7. During periods of continuous injection, the annulus pressure should be reasonably constant but large variations in pressure are permissible during startup and shutdown. The permittee shall set alarms or use daily observations to detect increases or decreases in annulus pressure and shall cease injection and shut the well in if a pressure change indicates the possibility of a loss of mechanical integrity. Interpretations of pressure changes shall take into account annulus pressure changes due to variations in temperature of the injected and annulus fluid.

New Well Construction – The permittee shall obtain written acceptance of financial assurance from WDEQ prior to construction of each of the proposed wells.

Any well stimulation activities require prior approval by the Administrator.

The packer at the bottom of the tubing shall be set below the top of the confining zone and within 500 feet of the top of the authorized discharge zone (Table 1) for each well and within a zone of good quality cement bond as shown by a cement bond log (Ch13, Sec 9(d)(xxv)).

Table 7. Maximum and Limiting Surface Injection Pressures (MSIP, LSIP)

	Ross DW No. 1, 2, 3, 4, 5
Maximum Injection Rate (bbl/day)	2,570
Maximum Annulus Pressure (psig)	800
Minimum Annulus Pressure (psig)	200
Assumed Fracture Gradient, F_f (psi/ft)	0.68
Depth to Top of Perforations, D_p (ft)	8,163
Fracture Pressure, P_f (psig) = $F_f \cdot D_p$	5,550
Estimated BH Temperature ($^{\circ}$ F)	154
Estimated Mid-perforation Temperature ($^{\circ}$ F)	127
Estimated TDS of Formation (mg/L)	20,000
Estimated Maximum TDS of Injectate (mg/L)	20,000
Density of Injectate, ρ_i (g/cm ³)	1.006
Injectate Fluid Gradient (psi/ft)	0.436
$grad_j = \rho_i \cdot 12 \frac{in}{ft} \cdot 16.387 \frac{cm^3}{in^3} / 453.592 \frac{g}{lb}$	
$MSIP = (D_p \cdot F_f) - (D_p \cdot grad_j)$ (psig)	1,990
$LSIP = 0.9 \cdot MSIP$ (psig)	1,790

Injection into a well may not begin until:

1. Well construction is complete (Ch13, Sec 9(d)(xxix)); and
2. The permittee has submitted a well completion and testing report and the "Notification of Construction Completion of Injection Well" (available on the WQD - UIC Program web site - <http://dec.state.wy.us/wqd/groundwater/uicprogram/index.asp> for a newly constructed or modified well; and
3. The permittee has provided the Administrator with sufficient notice to allow for inspection of the well (Ch13, Sec 9(d)(xxiv)); and
4. Mechanical integrity of the well and cement bonding of the long string casing have been proven or demonstrated to the satisfaction of the Administrator; and
5. The permittee has demonstrated financial assurance (Ch13, Sec 17(a)); and
6. The permittee has received written approval from the Administrator to begin injection.

E. Prohibitions

This permit does not allow for the injection of any hazardous waste as defined in 40 CFR 261.3 or 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.

No person shall conduct any authorized injection activity in a manner that results in a violation of any permit condition or representations made in the application (Ch13, Sec 18(b)(i)).

No person shall conduct any authorized injection activity in a manner that results in a movement of fluids out of the receiver (Ch13, Sec 18(b)(ii)).

No zone or interval other than the discharge zone shall be used as a receiver for the discharge (Ch13, Sec 18(b)(ii)(A)).

No uncased hole may be used as a conduit for the discharge, excepting that portion of a hole in the discharge zone (Ch13, Sec 18(b)(ii)(B)).

No annular space between the wall of the hole and casing in the hole may be used as a conduit for discharge, excepting in that portion of a hole in the discharge zone (Ch13, Sec 18(b)(ii)(C)). The annular space may receive fluids used in cementing casing during the cementing process.

No person shall construct, install, modify, or improve an authorized injection facility except in compliance with this permit (Ch13, Sec 18(b)(iii)).

F. Operation and Maintenance

Each injection well shall be constructed, operated, and maintained to prevent movement of fluid from the well into any USDW (Ch13, Sec 11(a)).

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 well, 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 (Ch13, Sec 9(d)(vi)).

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. If such procedures conflict with those in this permit, the conditions in this permit shall take precedence (Ch13, Sec 18(b)(i)).

Measuring and recording devices shall be tested and calibrated at a frequency sufficient to ensure accurate and precise measurements. A record of the date of the most recent calibration or maintenance shall be retained at the well site.

G. Entry and Inspection

The permittee shall allow the Administrator, or an authorized representative of 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; to inspect and photograph the discharge and related facilities and equipment; to review and copy reports and records required by this permit; to collect fluid samples for analysis; to measure and record pressures and water levels; to observe and record data from monitoring equipment; and to perform any other function authorized by law or regulation (Ch13, Sec 9(d)(xii)).

Inspectors shall not be required by the permittee to sign any waiver of liability.

H. Environmental Monitoring Program for Groundwaters of the State

The permittee shall furnish the Administrator any information necessary to establish a monitoring program if requested to do so (Ch13, Sec 9(d)(xiii)).

No groundwater monitoring program under this permit, other than that described in Section I, is required because of the reduction in risk of pollution due to the depth and confinement of the receiver (Ch13, Sec 13(a)(ii)).

I. Monitoring Requirements

1. The permittee shall retain records of all monitoring information (Ch13, Sec 9(d)(xiv)) including all calibration and maintenance records and all original chart recordings for a period of three years after closure of the facility (Ch13, Sec 15(g)), at which time the permittee shall notify the Administrator and either deliver the records to WQD or discard them as directed by the Administrator.
2. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The name(s) of individual(s) who performed the sampling or measurements;
 - c. The types of sample containers used, methods of preservation, and holding times;
 - d. The date(s) analyses were performed;
 - e. The name(s) of individual(s) who performed the analyses;
 - f. The analytical techniques or methods used;
 - g. The results and precision of such analyses.
3. For any new well or newly perforated zone within an existing well, the permittee shall collect a baseline groundwater quality sample from each aquifer or formation within the new discharge zone (Ch13, Sec 13(a)) and submit results for all the analytes and parameters in WDEQ WQRR Chapter 8, Table 1 and for the entire suite of volatile organic compounds listed for EPA method 624 prior to waste injection. The methods and procedures for sample collection and analysis must be approved by the Water Quality Division prior to sampling.
4. For any new well, the permittee shall collect at least two measurements of hydraulic head (or fluid density and pressure) within limestone in the lower 200 feet of the Madison formation.
5. Operational Monitoring (Ch13, Sec 13(b)(ii)):

Injection Pressure - The permittee shall measure the injection pressure continuously and record the readings on a strip chart recorder, a circular chart recorder, or electronically (Ch13, Sec 13(i)).

Injection Rate and Volume - The permittee shall measure the injection rate and volume continuously and record both on a strip chart recorder, circular chart recorder, or electronically (Ch13, Sec 13(i)).

Annulus Pressure - The permittee shall measure the pressure of the casing - tubing annulus continuously and record the pressures on a strip chart recorder, a circular chart recorder, or electronically (Ch13, Sec 13(i)).

Discharge Zone Reservoir Pressure, Reservoir Boundaries or Anomalies, Permeability, and Skin Factor - The permittee shall shut-in at least 50% of the completed wells covered by this permit annually (1 of 2, 2 of 3, 2 of 4 or 3 of 5 wells) for a period of time long enough to observe a valid pressure fall-off curve (Ch13, Sec 13(e)). For the first test the minimum duration of injection and fall-off shall be calculated according to the equations on page A-4 of the "UIC Pressure Falloff Testing Guideline" (USEPA Region 6, August 2002), or the equivalent equations in subsequent editions. Durations for subsequent tests shall be longer than wellbore storage and skin effects and sufficient for persuasive analysis and accurate estimates of transmissivity. Tests shall be analyzed by the permittee using commonly accepted methods to obtain transmissivity, permeability, and skin factor and to identify reservoir boundaries (including flow in fractures) and other anomalies such as partial penetration or layering. The test method chosen should be justified by a review of relevant assumptions and actual well and aquifer conditions. Along with the analysis and interpretation, the permittee shall submit plots of injection rate, pressure, and the pressure derivative versus time on appropriate graphs. If the method used differs from previous methods used for the same well, the analyst should discuss the comparability of the results.

Digital data, results, analyses, and interpretations for the fall-off test shall be submitted to the Administrator at the address in paragraph K.6 within one month or with the next quarterly report after the test is done, whichever is later (Ch13, Sec 15(f)). These data shall include pressures starting with the introduction of the pressure-measuring device into the well (or for at least one hour prior to test start for a permanently installed down hole device); and injection rates starting at least twice the fall-off period before the start of the fall-off test.

Radius of Influence - The results of each pressure fall-off test shall be used to update the radius of influence calculation for each discharge zone (Table 1). These annual updates shall account for historical injection and remaining project life. The permittee shall provide a map showing the updated radius of influence and all wells which penetrate the confining zone within the old and new radii of influence.

If the updated radius of influence encompasses wells not previously identified as within the area of review, construction and plugging and abandonment records for those wells shall be submitted to the Administrator.

Radius of influence calculations, figures, and interpretations shall be submitted to the Administrator at the address in paragraph K.6 within thirty days of the annual pressure fall-off test or with the next quarterly report after the test is done, whichever is later (Ch13, Sec 15(f)).

Physical and Chemical Properties of the Injectate - The permittee shall measure the quality of the injectate quarterly (Ch13, Sec 15(c)(v)), and when significant process changes occur, and when operating changes may significantly alter the waste stream (Ch13, Sec 13(h)). The samples must be representative of the waste as it enters the disposal well and include any anti-scalants,

biocides, or other additives. If any group of wells receives waste from the same pipe exiting the uranium processing plant, a single sample may be collected for that group from that pipe rather than at individual well locations. Table 8 lists the analytes and parameters to be determined quarterly. WQD may approve alternate methods to those listed in Table 8 upon receipt of a written request describing the procedures, precision, and accuracy of the proposed method and a comparison of the proposed method with that in Table 8.

The first three parameters in Table 8 shall be measured at the sample site(s) unless other methods are approved by the Administrator. The other analyses shall be performed by an EPA-certified laboratory.

Table 8. Analyte and Parameter List for Quarterly Analyses of Injectate

EPA Analytical Method	Analyte or Parameter	CAS Number
SM2550 B	Temperature	None
120.1 or SM2510 B	Specific Conductance at 25 C	None
SM4500-H ⁺ B	pH	None
none listed	Specific Gravity	None
160.1 or SM2540 C	Total Dissolved Solids	None
SM2320 B	Bicarbonate	71-52-3
SM2320 B	Carbonate	3812-32-6
300.0 or 300.1	Chloride, Total	16887-00-6
300.0, 300.1, or 375.2	Sulfate, Total	14808-79-8
SM4500-S2-D, SM4500-S2-G	Hydrogen Sulfide	7783-06-4
206.5, 200.7, or 200.8	Arsenic, Total	7440-38-2
200.7 or 200.8	Selenium, Total	7782-49-2
200.7 or 200.8	Vanadium, Total	7440-62-2
908.1 or 200.8	Uranium, Total	7440-61-1
903.1	²²⁶ Radium (picoCuries/liter)	7440-14-4

Note: Methods preceded by SM are standard methods.

The permittee shall require each customer to provide a water quality report for each waste source, such as a producing well, contributing to the permittee's discharge. The permittee shall require that water quality reports include operator name, field name, well name, well location, dates of sampling and analysis, pH, total dissolved solids, and major ions at a minimum. Copies of water quality reports collected during a quarter shall be submitted with quarterly report.

In the quarterly report, results for the permittee's quarterly samples shall be compared to the water quality report from the customer for that batch of waste by showing percentage differences for each analyte and parameter listed in table format.

Limiting Concentrations of Injectate - Upper control limits for this permit are listed in Table 9. pH has both upper and lower control limits and concentrations must remain within the range indicated in Table 9. Exceedances of these values are a violation of this permit and require notification under Section K of this permit.

Table 9. Control Limits for Injected Waste

Analyte or Parameter	Upper Control Limit
pH	> 2.00 pH < 11.00 s.u.

J. Sampling and Test Procedures

The following units are to be used where applicable: pounds (mass) per square inch for pressure with gage or absolute pressure noted (psig or psia); standard oil field barrels (bbl, equivalent to 42 gallons) for fluid volume; standard oil field barrels per day (bbl/day) for fluid flow rates; milligrams per liter (mg/L) for analyte concentrations other than pH in standard logarithmic units (s.u.) or radium, radioactive strontium isotopes, and gross alpha particle radioactivity in picoCuries per liter (pCi/L). The permittee may report equivalent quantities in other units in addition to those above.

Procedures and methods for sample collection and analyses shall be implemented by the permittee to ensure that the samples are representative of the groundwater, water, or wastes being sampled (Ch13, Sec 14(a)).

A trip blank of distilled water shall be collected for each quarterly sampling date and a duplicate sample shall be collected at least once per year. Blank and duplicate results and chain-of-custody forms shall be included in the quarterly reports.

Procedures for mechanical integrity tests are described in Section M.

Procedures for pressure fall-off tests are described under Operational Monitoring in Section I.

Procedures for step-rate injection tests are described under Injection Pressure in Section D.

K. Records and Reports

1. Record Retention - The permittee shall retain copies of all reports required by this permit, and records of all data used to complete the application for this permit until the permit expires. As described in Section I.2, monitoring records shall be retained for three years after well closure (Ch13, Sec 15(g)).
2. Electronic Data Deliverable (EDD) Reporting - The permittee shall use EDD reporting if required by the Administrator.
3. Compliance Schedule Reports - If a compliance schedule is required by the Administrator, reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any such schedule shall be submitted no later than thirty days following each schedule date (Ch13, Sec 9(d)(xx)).
4. Noncompliance Event Reports - See Section S.
5. Other Noncompliance Reports - The permittee shall report all instances of noncompliance not reported otherwise and submit the information listed for the written report in Section S with the next quarterly report (Ch13, Sec 9(d)(xxii)).

6. Quarterly Reports - Quarterly reports shall be submitted to the Administrator no later than 30 days after the end of each calendar quarter ((Ch13, Sec 15(a) and 15(c)). The mailing address is: UIC Program Supervisor, DEQ – Water Quality Division, Herschler Building – 4W, 122 W. 25th St., Cheyenne, WY 82002. The quarterly results shall also be submitted online at <https://gem.trihydro.com> within 45 days of the end of quarter. The written quarterly report for each well shall include the following information:
- a. The minimum, average, and maximum instantaneous injection rates for each month of the quarter. The page showing the maximum injection rates shall also show the maximum permitted injection rate for comparison.
 - b. The minimum, average, and maximum daily injection pressures for each month of the quarter (Ch13, Sec 15(c)(i)). The table or graph showing the maximum injection pressures shall also show the maximum permitted injection pressure for comparison and the pressures at which any alarms or kill switches are activated.
 - c. The total injection volume in barrels for each month of the quarter, the total for the quarter, and the total cumulative volume of waste injected to date (Ch13, Sec 15(c)(iv)).
 - d. The maximum and minimum annulus pressures for each month of the quarter. The table or graph showing the annulus pressures shall also show the pressures at which any alarms or kill switches are activated.
 - e. Any quarterly analytical results required by Section I of this permit (Ch13, Sec 15(c)(v)). Sample collection dates should allow ample time to receive analytical results prior to reporting deadlines.
 - f. Copies of customer water quality reports and a comparison with the permittee's quarterly samples as described under "Physical and Chemical Properties of the Injectate" in Section I.
 - f. Any permit exceedances within the quarter.
 - g. Any events that triggered alarms or shutdowns and the responses taken during the quarter shall be fully described (Ch13, Sec 15(c)(iii)).
 - h. Any well tests conducted more than thirty days before the end of the quarter (e.g., mechanical integrity, pressure fall-off, or step-rate injection) (Ch13, Sec 15(f)) and reports of well workovers (Ch13, Sec (c)(vi)). See also item K.8.

7. Annual Reports - Annual reports shall be submitted to the Administrator at the same address as the quarterly reports. They are due no later than thirty days after the end of each calendar year (Ch13, Sec 15((c)). The annual report for each well shall include the following information in addition to that required for the quarterly report:

- a. A graphical representation of the injection pressures and volumes for the previous five year's operation and a digital file (e.g., .csv, .txt., .xls, .xlsx) containing these data. The graph shall have calendar dates as the abscissa and pressure and volume as the ordinates.

- b. Graphical representations of the quality of the injected waste over time and a digital file (e.g., .csv, .txt., .xls, .xlsx) containing these data. The graphs shall show the injectate quality for the previous five year's operation and shall be prepared on scales appropriate to the variation observed.
8. Well Tests – Reports of well tests conducted less than thirty days before the end of a calendar quarter shall be submitted within thirty days of test completion (Ch13, Sec 15(f)).
 9. Reports for Aborted Operations - A comprehensive report for any aborted or curtailed operation, which results in the complete termination of discharge or associated activity, shall be submitted to the Administrator within thirty (30) days of termination in lieu of an annual report (Ch13, Sec 15(d)).
 10. Reports of Plugging and Abandonment – A report of plugging and abandonment (Section N) shall be submitted as soon as practicable after a well is plugged (Ch13, Sec 9(d)(xxvii)).
 11. Well Completion Report – A report of well construction, completion, and testing and “Notification of Construction Completion of Injection Well” shall be submitted prior to injection into a new or modified well (see New Well Construction in Section D).
 12. Step-rate Injection Test Report - A step-rate injection test is required within one year of permit issuance (Ch13, Sec9(d)(ii)) or at the time of well completion and prior to waste injection.

L. Permit Conditions

This permit is issued for a period of ten (10) years (Ch13, Sec 9(a)). If the permittee wishes to continue injection after the expiration date of this permit, he shall apply to the Administrator at least four months prior to the expiration date of this permit (Ch13, Sec 9(d)(iii)).

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit (Ch13, Sec 9(d)(iv)).

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

The filing of a request by the permittee, or at the instigation of the Administrator, for permit modification, revocation, or termination, or the notification of planned changes or anticipated noncompliance shall not stay any condition of this permit (Ch13, Sec 9(d)(ix)).

After notice and opportunity for a hearing, the Administrator may modify or revoke a permit, in whole or in part, during its term for cause. Causes include, but are not limited to, the following:

1. Noncompliance with terms or conditions of this permit (Ch13, Sec 8(e)(i));

2. Failure in the application or during the issuance process to disclose fully all relevant facts, or misrepresenting any relevant facts at any time (Ch13, Sec 8(e)(ii)); or
3. Failure of the casing, cement, or the confining layer; or
4. A determination that the activity endangers human health or the environment and can only be regulated to acceptable levels by a permit modification or termination (Ch13, Sec 8(e)(iii)).

Permits will be automatically terminated after closure and release of financial responsibility by the Administrator (Ch13, Sec 8(i)).

This permit will be reviewed by WQD at least once every five (5) years, and may be reviewed more frequently (Ch13, Sec 9(b)). Permits that do not satisfy the review criteria are subject to modification, revocation and reissuance, or termination (Ch13, Sec 9(c)).

The conditions in this permit supersede any application content (Ch13, Sec 18(b)(i)).

M. Mechanical Integrity

Mechanical integrity shall be maintained continuously and tested at intervals of no longer than five years. The test used to determine mechanical integrity shall be a two part test approved by the Administrator (Ch13, Sec 9(d)(vii)). The two parts shall be conducted no more than three months apart unless prior approval is obtained from the Administrator.

Part I of the mechanical integrity test shall demonstrate the absence of leaks through the packer, tubing, casing, and wellhead (Ch13, Sec 9(d)(vii)(A)). Prior to operational injection and at least once every five (5) years the casing-tubing annulus of each well shall be pressure tested to 0.25 psi/foot times the true vertical depth to the top of the packer and the inner casing for each well. A pressure change of less than 10% after thirty (30) minutes shall be considered successful.

Part II of the mechanical integrity test shall demonstrate the absence of fluid movement behind the casing (Ch13, Sec 9(d)(vii)(B)) above the topmost perforation. Prior to the commencement of waste injection and at intervals of no longer than five years thereafter, and more frequently if required by the Administrator, each well shall be logged using a radioactive tracer survey (or oxygen activation log) and a temperature survey. The static temperature log shall start more than two hours, and preferably more than 24 hours for an active well, after injection has ceased.

Other types of logs may be substituted for Part II of the mechanical integrity test if they satisfy Chapter 13, Sec 9. (d) (vii) and are approved by the Administrator.

WQD shall be notified a minimum of 30 days prior to a mechanical integrity test.

Data, results, analyses, and interpretations for the tests shall be submitted to the Administrator at the address in paragraph K.6 within thirty days or with the next quarterly report after the test is done, whichever is later (Ch13, Sec 15(f)).

In the case of a failed mechanical integrity test in a well that has begun waste disposal, the well shall be immediately shut-in (Ch13, Sec 9(d)(viii)). The Administrator shall be notified by

telephone at (307) 777-7781 within twenty-four hours of the test and a written report shall be submitted within seven days. Injection shall not resume until the well has been repaired, a complete mechanical integrity test has been passed, and written permission to resume operation has been obtained from the Administrator.

If at any time injection occurs in any zone not within the discharge zone, a permit violation has occurred. The operator shall prepare an estimate of the volume and quality of all wastewaters which were injected outside of the discharge zone. In the case where any aquifer meeting the standards for Class I through IVA under Wyoming Water Quality Rules and Regulations, Chapter 8, has been contaminated due to out of zone injection, the operator shall prepare and implement a plan to recover these solutions. Injection shall not resume until the well has been repaired, a complete mechanical integrity test has been passed, and written permission to resume operation has been obtained from the Administrator.

N. Plugging and Abandonment

Any well under this permit shall be plugged and abandoned within six months after:

- Permit expiration (unless application for a new permit has been made and has not been denied by the Administrator) or termination;
- Final cessation of injection activities; or
- The permittee has removed equipment required for the proper operation and monitoring of the well (except for temporary removal during well maintenance).

The permittee shall notify the Administrator of plans to convert or abandon a well (Ch13, Sec 9(d)(xxvi)) at least 90 days prior to the start of any conversion or abandonment activity. The permittee shall follow the plugging and abandonment procedure described in the application or subsequently prescribed by the Administrator. The procedure shall include well plugging, abandonment, surface reclamation and seeding of the well site, closure of related surge ponds, and removal or purging and plugging of any underground piping. In no case shall the procedure be less stringent than that required by USEPA for Class I non-hazardous waste disposal wells at the time of abandonment (e.g. Title 40 Code of Federal Regulations Part 146.10)

As soon as practicable after plugging and abandonment of any well covered by this permit, the permittee shall submit a plugging and abandonment report describing all activities and detailing any deviations from the original plan (Ch13, Sec 9(d)(xxvii)).

O. Duties of the Permittee

Duty to Comply - The permittee shall comply with all conditions of this permit (Ch13, Sec 9(d)(i)), all rules and regulations of the Department of Environmental Quality, and all applicable state and federal laws. Nothing in this permit relieves the permittee of any duties under applicable regulations.

Duty to Mitigate - The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit (Ch13, Sec 9(d)(v)).

Duty to Give Notice of Changes - The permittee shall give advance notice to the Administrator as soon as possible of any planned physical alteration or additions, other than authorized operation and maintenance, to the permitted facility and receive authorization prior to implementing the proposed alteration or addition (Ch13, Sec 9(d)(xvi)).

Duty to Warn of Noncompliance - The permittee shall give advance notice to the Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements (Ch13, Sec 9(d)(xvii)).

Duty to Provide Information for Permit Modification - 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 and reissuing, or terminating this permit, or to determine compliance with this permit. (Ch13, Sec 9(d)(xi)).

Duty to Provide Records - The permittee shall furnish the Administrator, upon request, copies of records required to be kept by this permit (Ch13, Sec 9(d)(xi)).

Duty to Amend Permit - Any modification that will result in a violation of any permit condition shall be reported to the Administrator through the submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued (Ch13, Sec 9(d)(xvii)).

Duty to Correct - The permittee shall report all instances where it becomes aware that it failed to submit any relevant facts in the permit application, or where it submitted incorrect information in a permit application or in any report to the Administrator, and shall promptly submit such facts or information (Ch13, Sec 9(d)(xxiii)).

Duty to Monitor - Monitoring results shall be obtained and reported at the intervals specified elsewhere in this permit (Ch13, Sec 9(d)(xix)).

Duty to Test - Test results shall be obtained and reported at the intervals specified elsewhere in this permit.

Duty to Provide Current Contact Information - The permittee shall report any changes to physical or mailing address, phone, or email, and any changes of the personnel responsible for complying with this permit to WQD within one month of the change.

P. Financial Responsibility

The permittee is required to maintain financial assurance, in a form approved by the Administrator, to close, plug and abandon the injection well operation and to reclaim the surface facilities in a manner approved by the Administrator (Ch13, Sec 17(a)).

The obligation to maintain financial responsibility survives the termination of the permit or the cessation of injection (Ch13, Sec 17(c)).

If the institution issuing the financial instrument files for bankruptcy or loses its authority to issue financial instruments, the permittee shall notify the Administrator within two weeks and obtain other financial assurance within two months. If the permittee is named as debtor in any voluntary or involuntary bankruptcy proceeding, it must notify the Administrator within two weeks.

The permittee has provided an estimate of \$104,110 to plug and abandon each well as identified in Table 15 of the application. Prior to commercial injection into any well, a financial instrument will need to be secured and approved by the Department. Once approved, the financial

instrument(s) shall be maintained for as long as the wells are covered by this permit. The financial assurance amount(s) will be adjusted annually to keep pace with inflation,

Q. Special Permit Conditions

In addition to the conditions required of all permits, the Administrator may establish specific conditions so as to prevent the migration of fluids into USDWs (Ch13, Sec 9(e)). The following specific conditions are established for this permit:

- None.

R. Signatories Requirement

All reports filed in conjunction with this permit shall contain the following certification (Ch13, Sec 9(d)(xv)):

"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." (Ch13, Sec 5(c)(xv))

All reports required by this permit and other requested information shall be signed by a responsible officer as described in WQRR Chapter 13, Section 5(b)(xiv));

or

By a duly authorized representative. 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.

S. Noncompliance

Any permit noncompliance constitutes a violation of WQRR Chapter 13 and is grounds for enforcement action, permit termination, revocation, or modification (Ch13, Sec 9(d)(i)). Confirmed noncompliance resulting in a migration of injected fluid outside the discharge zone shall be reported to the Administrator at (307) 777-7781 within twenty-four (24) hours from the time the permittee becomes aware of the circumstances and a written report shall be provided within five (5) days (Ch13, Sec 9(d)(xxi)).

The oral report shall include:

- a. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a useable 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 useable groundwaters of the state.

The written report shall include:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. If the noncompliance has not been corrected, the anticipated time it is expected to continue; and
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance (Ch13, Sec 9(d)(xxi)).

T. 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 no transfer shall be approved unless the proposed permittee agrees to correct any and all noncompliance issues (Ch13, Sec 9(d)(xviii) and Ch13, Sec 8(k)).

The permittee is alone responsible for the operation of the facility covered by this permit. Operation of this facility by another entity is a violation of this permit unless a transfer of this permit has first been accomplished.

U. Property Rights

This permit does not convey any property rights or any exclusive privileges. This permit does not authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations (Ch13, Sec 9(d)(x)).

The state of Wyoming recently passed Wyoming statute §34-1-152 and amended Wyoming statute §34-1-202 regarding the ownership of pore space within the subsurface. WDEQ recommends that permittees consider how these laws may apply to their injection of material into the subsurface.

V. Severability

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

Abbreviations:

USDW – underground source of drinking water (Classes I, II, III, IV(a), Special(A))

USEPA – United States Environmental Protection Agency

WDEQ – Wyoming Department of Environmental Quality

WQD – Water Quality Division of WDEQ

WQRR – WDEQ Water Quality Rules and Regulations

STATE OF WYOMING PUBLIC NOTICE

THE PURPOSE OF THIS NOTICE IS TO INDICATE THE STATE OF WYOMING'S INTENTION TO ISSUE AN UNDERGROUND INJECTION CONTROL PERMIT AND TO CLASSIFY THE RECEIVING GROUNDWATER OF THE STATE IN THE VICINITY OF THE PERMITTED INJECTION WELLS UNDER THE WYOMING ENVIRONMENTAL QUALITY ACT (35-11-101 ET. SEQ. WYOMING STATUTES 1957, CUMULATIVE SUPPLEMENT 1973), AND DEPARTMENT OF ENVIRONMENTAL QUALITY, WATER QUALITY RULES AND REGULATIONS CHAPTERS 8 AND 13. IT IS THE STATE OF WYOMING'S INTENTION TO ISSUE AN UNDERGROUND INJECTION CONTROL PERMIT FOR THE DISPOSAL OF NON-HAZARDOUS INDUSTRIAL WASTEWATER AS DEFINED IN CHAPTER 2, SECTION 1(c), WYOMING HAZARDOUS WASTE RULES AND REGULATIONS.

PERMITTEE: Strata Energy, Inc.; 406 W. 4th St.; Gillette, WY 82716;
(307) 689-6080

PERMIT NUMBER: **10-263**

PERMIT TYPE: Underground Injection Control, Non-hazardous Class I Well

DURATION: The permit will be valid for 10 years from the date of issuance.

FACILITY NAME: Ross Disposal Wellfield, Facility No. WYS-011-00031

LOCATION: The 5 wells are in Crook County, Wyoming -
Ross DW No. 1 (proposed) in Section 18, T53N, R67W,
Ross DW No. 2 (proposed) in Section 18, T53N, R67W,
Ross DW No. 3 (proposed) in Section 19, T53N, R67W,
Ross DW No. 4 (proposed) in Section 13, T53N, R67W.
Ross DW No. 5 (proposed) in Section 13, T53N, R67W.

AUTHORIZED WASTE: The waste water stream includes the following components related to the solution mining and extraction of uranium: production "bleed" (excess of extracted over injected water to maintain an inward hydraulic gradient in the production well field), filter and ion exchange wash water, reverse osmosis brine, yellowcake wash water, laboratory waste water, plant washdown water, groundwater sweep water to flush the mined aquifer and restore it to pre-mining conditions, and well drilling fluids.

The waste water is characterized by high concentrations of the following constituents: 4,000 to 40,000 milligrams/liter total dissolved solids, 800 to 25,000 mg/L chloride, 1,000 to 7,500 mg/L bicarbonate, 1,000 to 2,500 mg/L sulfate, 5 to 25 mg/L uranium (as U_3O_8), 400 to 2,500 picoCuries/liter radium (isotope 226), <0.10-0.14 mg/L arsenic, and <0.10-0.13 mg/L selenium.

The waste is considered byproduct material of uranium mining by the Atomic Energy Act and is excluded from the definition of hazardous waste under section 261.4(a)4 of Title 40 of the Code of Federal Regulations.

INJECTION ZONE: The wells will inject into the Deadwood and Flathead formations at depths of 8,163 to 8,755 feet in the eastern part of the Powder River structural basin.

Confinement above the discharge zone is provided by about 50 feet of marine shale of the Icebox Member of the Winnipeg Formation and by over 300 feet of dolostone of the Red River Formation. Adequate confinement will be verified upon completion of each disposal well.

OPERATIONS: The surface injection pressure in each well will be limited to 1,790 pounds per square inch gauge pressure until the actual formation fracture pressure is determined by testing. In all cases, the surface injection pressures will be limited to less than the actual fracture pressures of the discharge zones. The wells will be allowed to inject at instantaneous rates up to 2,570 barrels/day (75 gallons/minute) subject to the pressure limitations. Injection rates and pressures may vary widely over the course of a year.

MONITORING: The proposed permit requires that the permittee monitor injection rates and tubing pressures continuously. The pressure in the casing – tubing annulus will also be monitored continuously to check for leaks in casing, tubing, or packer. Injection and annulus pressures, injection volumes, and analyses of the discharge will be reported quarterly. The proposed permit requires pressure fall-off tests annually and mechanical integrity tests every 5 years. This permit will be reviewed by Department of Environmental Quality staff every 5 years.

GROUNDWATER CLASSIFICATION: The waters in the discharge zones within 1,320 feet of each well are classified according to Water Quality Rules and Regulations, Chapter 8, Section 4(d)(ix) as Class VI (unsuitable for use) because they occur at depths and locations that make use of the water economically and technologically impractical.

No water samples have been collected near the disposal well field. Analyses of geophysical logs for wells 14-29 miles away indicates sodium chloride salinity in the discharge zone ranges from 1,450 to 85,000 parts per million. Total dissolved solids (TDS) concentrations in mg/L would be somewhat higher than the salinities.

There are 40 permitted domestic and 93 stock wells (with or without other uses) in the four township area (T52-53N, R67-768W) surrounding the Ross mine permit. All those with known depths are less than 1,600 feet deep. 22 wells for miscellaneous or industrial use are shallower than 1,800 feet and one is about 3,700 feet deep. 5 such wells have depths of 6,900-7,300 feet but permits for 4 of these wells have been cancelled. No permitted water wells with known depths will be impacted by waste disposal. Depths for many of the miscellaneous and industrial wells are not known.

The discharge zones are unlikely to ever be needed for water supply because there are several shallower aquifers with better quality water and/or higher yields: Lance - Fox Hills (0-700 feet deep), Fall River - Lakota (Dakota) (4,800-5,100 feet deep), Hulett Sandstone (Sundance) (5,400-5,600 feet deep), Minnelusa (6,300-6,800 feet), and Madison (7,000-7,700 feet deep). Depths to these aquifers are shallower to the east and deeper to the west of the mine site.

BONDING: Financial assurance is required for this facility and will be included in the bond held by the Land Quality Division for Permit to Mine TFN 5 6/110. A minimum of \$104,110 will be allocated for the plugging and abandonment of each well.

PUBLIC COMMENTS on the proposed operation, the proposed groundwater classification, and the State's intent should be submitted in writing and addressed to: John Passehl, Wyoming Department of Environmental Quality, Water Quality Division, Herschler Building – 4W, 122 West 25th Street, Cheyenne, Wyoming 82002; or by FAX to (307) 777-7610. Comments submitted by email will not be considered. All written comments received prior to 5:00 P.M, **March 29, 2011** in the Cheyenne office will be considered.

Any person may request that a public hearing be held but must do so in writing prior to the end of the public comment period. Requests should indicate the name and full mailing address of the individual requesting a hearing, the interest that individual has in the project, and the grounds for holding a public hearing.

If a hearing is not warranted and no comments are received, the final permit will be issued at the end of the public comment period.

Public Notice 10-263

Published on **February 28, 2011** – Gillette News-Record



Matt Mead, Governor

Department of Environmental Quality

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



John Corra, Director

CERTIFIED MAIL

February 7, 2011

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

RE: Ross Disposal Wellfield, UIC Class I Application 10-263
Crook County, Wyoming

Dear Ms. Cheung:

In accordance with the Memorandum of Agreement (MoA) between the Wyoming Department of Environmental Quality (WDEQ) and the United States Environmental Protection Agency (USEPA), please be informed that WDEQ has determined that application 10-263 from Strata Energy, Inc., for an Underground Injection Control (UIC) Class I area permit is complete and technically adequate. Draft permit 10-263 is for five proposed wells: Ross DW No. 1, Ross DW No. 2, Ross DW No. 3, Ross DW No. 4, and Ross DW No. 5.

WDEQ is classifying waters in the Deadwood and Flathead aquifers within the areas of review for each disposal well as Class VI because the wells are "located in such a way, including depth below the surface, so as to make use economically and technologically impractical" [Water Quality Rules and Regulations, Chapter 8, Section 4(d)(ix)(C), 40 CFR 147.2550(a)(3)]. There are no aquifers below the proposed discharge zones.

WDEQ has determined that its groundwater classifications in this case conform to USEPA exemption of said portions of these aquifers under 40 CFR 146.4(a) and 146.4(b)(2). The designated Class VI waters also meet exemption criterion 146.4(c). The basis for WDEQ's groundwater classifications is described under the heading "Basis for Class VI Classification" in the attached 'Supplemental Information.' In accordance with the MoA and Wyoming's UIC program description as accepted for delegation by USEPA, please review these materials for consistency with Wyoming's groundwater classification criteria and USEPA's aquifer exemption criteria at 40 CFR 146.4 and respond to WDEQ in writing.

The application material and draft permit are available for USEPA review on the GEM web site (<https://gem.trihydro.com>). The draft permit, public notice, and 'Supplemental Information' attachment will be released for public comment approximately 20 days after your receipt of this letter and will be available on the WDEQ web site (<http://deq.state.wy.us/wqd/events/index.asp>).



The public comment period is 30 days and comments will be forwarded to USEPA as they become available. Please send your interim response within 45 days to John Passehl at the return address above.

Thank you.

Sincerely,

Handwritten signature in cursive script that reads "Jane Francis" with "for" written below it.

George D. Langstaff
UIC Program, Water Quality Division

GDL/bb/11-0139

Attachment: Supplemental Information

cc: Tony Simpson, 406 W. 4th Street, Gillette, WY 82716
Hal Demuth, Petrotek, 10288 W. Chatfield Ave., Suite. 201, Littleton, CO 80127
John Wagner, Administrator, Water Quality Division
Kevin Frederick, Manager, WQD Groundwater Section
John Passehl, UIC Program Geological Supervisor, WQD Groundwater Section

**SUPPLEMENTAL INFORMATION
CLASS I INJECTION WELL, NON-HAZARDOUS**

**GROUNDWATER CLASSIFICATION
Ross Disposal Well Field, Permit 10-263**

General Information

Description of the Discharge Zone: The discharge zone comprises the Deadwood and Flathead formations. Perforations for the proposed wells will be allowed in the depth range of 8,163-8,755 feet.

The area of review for each well is based on the minimum radius for the area of review as this is larger than the radius of the cone of influence and the radius of emplaced waste (Water Quality Rules and Regulations-WQRR, Chapter 13, Section 5(b)(iv)(C)) (Table 1).

Table 1. Areas of Review for the Disposal Wells

	Minimum Radius	Radius of Emplaced Waste	Radius of Influence
Ross DW No. 1	1,320 ft	1,037	4
Ross DW No. 2	1,320 ft	1,037	4
Ross DW No. 3	1,320 ft	1,037	4
Ross DW No. 4	1,320 ft	1,037	4
Ross DW No. 5	1,320 ft	1,037	4

Water Quality of the Discharge Zone: No water samples have been collected from the discharge zone near the Ross Disposal Wellfield. Log analysis indicates NaCl salinity of 1,450-21,000 ppm at depths of 3,760-4,280 feet in a well about 29 miles northeast of the Ross project, 85,000 ppm at depths of 4,053-4,082 feet about 14 miles to the north, and 8,500-37,000 ppm at depths of 10,480-11,000 feet about 22 miles to the west (Petrotek, 2010, Table 5). The U.S. Geological Survey's produced waters database has no analyses of Deadwood or Flathead water in the Powder River Basin.

Confining Zone: The discharge zone is confined above by marine shale of the Icebox Member of the Winnipeg Formation and by marine dolostone of the Red River Formation (Petrotek, 2010, p. 15-16). Published isopach maps indicate thicknesses of 30-40 feet for the Icebox Member and 280-320 feet for the Red River Formation at the Ross project but log correlations by Petrotek (2010) suggest thicknesses of about 50 feet and 360 feet, respectively.

Underlying Aquifers: There are no underlying aquifers as the Flathead Formation rests directly on crystalline Precambrian rocks.

Current Use of the Affected Aquifer as a Drinking Water Source

Drinking Water Use: In the four townships (approximately 12 miles x 12 miles or an area of 144 square miles) nearest the Ross disposal wells, the State Engineer's Office (SEO) water rights database (current through 2009) lists 40 wells for domestic or domestic and other (e.g., stock watering) purposes (Table 2). Of the 38 with well depths, the deepest is 750 feet, or

approximately 7,400 feet shallower than the top of the discharge zone. The SEO database does not list any municipal wells in this area.

Table 2. Water Use in the Ross Project Area Based on the State Engineer's Office Water Rights Database

Uses	Number of Permits	Number of Permits with Depths	Maximum Depth
Domestic and other	41	38	750
Stock and other, except domestic	93	85	1,575
Miscellaneous, industrial, and other, except domestic or stock	51	28	7,310
Monitor	37	0	unknown

Because the Madison aquifer is shallower than the aquifers in the proposed discharge zone and can produce higher yields, few water wells are drilled to the Deadwood or Flathead. Areas where the Deadwood or Flathead are present but not the Madison are limited to a relatively narrow ring in South Dakota around the core of the Black Hills Uplift and around small intrusion-caused domes near Sundance and south of Beulah (Hodson and others, 1973). The Reuter Canyon No. 2 test well for the Vista West subdivision outside of Sundance penetrated about 400 feet of steeply dipping Deadwood Formation but yielded only about 10 gal/min by air-lifting (Weston Engineering, 1994). One of the water quality samples on the map by Hodson and others (1973) was from a 6,227 feet deep well in the Deadwood Formation near Newcastle, about 60 miles southeast of the mine site.

Other Uses: The SEO water rights database lists 51 wells with industrial, miscellaneous, or miscellaneous and some other use (except stock or domestic) in the four townships nearest the disposal wells. 27 of the permits have been cancelled. Although use of these wells might include drinking water, most are owned by mining or petroleum companies. For the 28 wells with reported depths, five have depths of 6,900-7,300 feet (probably the Madison aquifer; all but one of these permits have been cancelled), one has a depth of 3,708 feet, twelve have depths of 1,000-1,730 feet, and 10 have depths of 750 feet or less.

The four township area includes 93 permits for stock watering use with or without irrigation use. The maximum depth of the 85 wells with known depths is 1,575 feet.

Criteria for the Proposed Class VI Classification

Groundwater Classification of the Discharge Zone: WDEQ is classifying waters in the Deadwood and Flathead aquifers within the areas of review for each disposal well as Class VI because the wells are "located in such a way, including depth below the surface, so as to make use economically and technologically impractical" (WQRR, Chapter 8, Section 4(d)(ix)(C)). The basis for WDEQ's classification and justification for aquifer exemption under 146.4(b)(2) are described in "Basis for Class VI Classification" below.

Basis for the Class VI Classification

Distance from Population Centers: The Ross Disposal Wellfield is located in a sparsely populated, rural part of the Powder River Basin where the major land use activities are ranching and petroleum production. The nearest population centers are listed in Table 3. Because of the distances in Table 3, it would be uneconomic to develop water supplies in the Moore Ranch area for off-site communities unless the water supply potential were outstanding. It is not (see below).

Table 3. Population Centers Nearest Disposal Wells

Community	2009 Population	Distance from Ross	Direction from Ross
Oshoto	not in census	1 miles	northeast
Pine Haven	398	16 miles	southeast
Weston	not in census	18 miles	west
Hulett	518	18.5 miles	northeast
Moorcroft	926	21 miles	south
Sundance	1,339	30 miles	southeast
Gillette	28,728	32 miles	southwest

2009 population is an estimate by the Wyoming Economic Analysis Division (<http://eadiv.state.wy.us/pop/SUB-09EST.htm>).

Water Supply Potential: Based on recharge/sustainability, water quality, and yield, aquifers in the discharge zone have minimal water supply potential. Average annual precipitation over the South Dakota portion of the Black Hills is 18.6 inch/yr and is locally up to 28 inch/yr (Driscoll and Carter, 2001). However, only a small portion of this is captured by the Deadwood and Flathead aquifers. Except for limited outcrop around Tertiary intrusions near Sundance and Deadwood, recharge to the Deadwood and Flathead aquifers occurs primarily in South Dakota more than 50 miles southeast of the Ross Project. Driscoll and Carter (2001, Figure 35) calculated that net groundwater outflow from the Deadwood aquifer (they did not differentiate the Flathead Formation) in South Dakota is 6 ft³/s, or 2,693 gal/min. A small fraction of this outflow could flow northwestward toward the Ross Project (Driscoll and others, 2002, Figure 84). At a distance of 60 miles, an arc of 1° would be about 1 mile across. Assuming homogeneous radial flow away from the Black Hills, the recharge flowing through a 1 mile width of the Deadwood-Flathead aquifers would be about 7.5 gal/min. Downward leakage from the Madison aquifer into the Deadwood is unlikely because the high elevations of the recharge areas in the Black Hills results in upward hydraulic gradients in the adjacent basin. Consequently, the sustainability of the Deadwood and Flathead aquifers at the Ross Project is poor.

Total dissolved solids (TDS) concentrations in the Deadwood and Flathead aquifers at the Ross site are almost certainly greater than 5,000 mg/L and could be well above 10,000 mg/L. Use of these aquifers as drinking water supplies is not plausible. The sensitivity of drinking water supplies to water quality is illustrated by the development of Gillette's water supply. Rather than drill Madison wells near the city, Gillette chose to drill the wells far to the northeast and install a 42 mile pipeline to convey the water to the users. The expectation of "highly mineralized" water in the Madison below Gillette, in addition to the high cost of a deep well, played a major role in the decision to locate the wells far from town (State Engineer's Office, 1977, p. 37). Considering water quality alone, future water demand at the Ross site would be met by shallower aquifers or by Deadwood - Flathead wells closer to the recharge areas.

The Ross uranium mine is located on the eastern margin of the Powder River Basin. It is west, and down dip of, the Black Hills monocline (Petrotek, 2010, Figures 11 and 12). Although fracturing at Ross could be enhanced due to proximity to the monocline, the crest of the monocline would be a more favorable location for secondary permeability. There are no existing high-yield water wells in the Deadwood and Flathead anywhere near the Ross Project to demonstrate the possibility of high yields. It would be very risky to target the Deadwood and Flathead aquifers at the Ross site as a source of water.

Gillette's decision (State Engineer's Office, 1977) to locate a new water supply illustrates the trade offs in well siting. Gillette, like the Ross project, is located west of the Black Hills monocline. The new well field was sited east of Gillette on the Black Hills monocline to take advantage of fracturing and karst development in the Madison aquifer. The location is also closer to the Madison recharge area so the aquifer is at a shallower depth and has better water quality than under Gillette. However, the location required a 42-mile pipeline to deliver the water to Gillette. The ten current wells have depths of 3,010 feet or less and pumping rates of 500-1,500 gal/min (HDR, 2009). 200-250 horsepower pumps are set at depths of 500-1,100 feet. Total dissolved solids concentrations of the Madison water are 580-730 mg/L (HDR, 2009, Table 7.3). From 1978 through 2007, the Madison well field has supplied 65% of Gillette's water needs (HDR, 2009, Table 7.2). This success has convinced Gillette to drill eleven more Madison wells near the first ten and to build a second parallel pipeline (HDR, 2009). Future water demands in the region which cannot be met by shallow, low-yield wells on site could be met by Madison wells on, or east of, the Black Hills monocline. The Deadwood and Flathead aquifers west of the Black Hills monocline are not prospective water supply targets. Significantly, the 2002 Northeast Wyoming River Basin Plan does not even mention the Deadwood and Flathead aquifers for development potential (HKM Engineering, 2002, Table 4.0).

Aquifers in the discharge zone at the Ross site are unfavorable for sustainability, unfavorable for water quality, and unfavorable for high yield. Developing unsustainable, poor quality water with low yield wells is not economical.

Remoteness: Access to the Ross Project area is adequate. County roads provide access from US Highway 14, about 12 miles to the southeast, and from I-90/US 16, about 21 miles to the south. However, the area is relatively distant from population centers. Suburban sprawl peripheral to Gillette has been primarily along I-90 and along highways US 50 and US 59 south of Gillette. This development pattern is expected to continue in the near future (HDR, 2009).

Land Ownership: Surface ownership at the Ross site is almost entirely private. The State has approximately two sections per township and there is less than a section of federal land within a three mile radius of the mine permit boundary. Federal and state ownership are not obstacles to settlement or development at Ross. The possibility for rural development would consequently depend on the needs and desires of current and future owners.

Well Costs: A regression of Wyoming Water Development Commission (WWDC) cost data for public water supply wells with depths of 200-4,250 feet indicates that it would cost approximately \$442,000 (in 2009 dollars) to drill and complete a 700 feet deep well in the Lance

- Fox Hills aquifer system and \$3,461,000 (in 2009 dollars) to drill and complete a 8,800 feet deep well to the bottom of the Flathead aquifer. The Newcastle (Muddy) Sandstone is too thin to be a viable water supply target but a well to the Fall River - Lakota (Dakota) aquifer system at 5,100 feet would cost about \$1,352,000. A Madison well to 8,000 feet would cost \$2,825,000. Per gallon operating costs are likely to increase with depth as yields are probably lower in deeper aquifers. The Deadwood and Flathead aquifers are consequently not economically viable sources of water.

Treatment Costs: Water in the Deadwood and Flathead aquifers almost certainly has TDS greater than 5,000 mg/L and may have other constituents which would need to be treated. Depths and lack of water supply potential are the primary factors in the economic impracticality of water wells to the Deadwood or Flathead aquifers, but treatment would substantially increase capital and operating costs. HDR (2000) estimated capital costs of \$1.52 million and annual operating costs of \$112,000 for reverse osmosis treatment of brackish water (1,000-3,000 mg/L) needing minimal pre-treatment to produce a 347 gal/min water supply. Decreases in treatment costs since 2000 due to improved technology may be more than compensated by the higher TDS of the Deadwood - Flathead water. Compared to a \$442,000 well and no treatment, such costs are prohibitive.

Alternate Sources of Water Supply: The Lance - Fox Hills aquifer system is exposed at the surface near the Ross project. It provides an economic source of good to fair quality water for current and future residents in the Ross area. Reported yields for shallow wells on the Lance - Fox Hills outcrop in the eastern Powder River Basin range up to 65 gal/min but a dozen deep wells (2,900-4,400 feet) near Gillette have reported yields of 100-625 gal/min (State Engineer's Office, 2005). Some of these reported yields may not be factual but an 8-day pumping test of Fox Hills #1 at the Dry Fork Mine demonstrated that a yield of 370 gal/min can be maintained in at least one well designed well (State Engineer's Office, 2005).

In addition, there are significant aquifers at shallower depths than the Deadwood and Flathead aquifers at the Ross mine site. Several water wells on sheet 2 of Hodson and others (1973) produce from the Fall River and/or Lakota formations of the Inyan Kara Group (part of the Dakota aquifer system of the northern Great Plains). Two southwest of Newcastle and one south of Upton have TDS less than 2,000 mg/L in spite of depths of 3,850-5,330 feet. Hodson and others (1973) reported yields up to 150 gal/min but the highest was for a well only 800 feet deep.

The induction logs (API Nos. 49-011-20844 and -20332) through the Morrison Formation, below the Dakota aquifer system at 5,100-5,250 feet at the Ross site, indicate the presence of some sandstone, which is probably fine grained. However, Hodson and others (1973) noted yields up to 10 gal/min in the Morrison near outcrop and that "most of the formation does not yield water".

The Hulett Sandstone Member of the Sundance Formation is about 200 feet thick under the disposal well field at depths of 5,390-5,590 feet (API Nos. 49-011-20844 and -20332). Hodson and others (1973) indicated yields of up to 50 gal/min are possible at shallow depths.

The upper Minnelusa Formation is hydraulically isolated from the underlying Madison in parts of the Black Hills and eastern Powder River Basin (Feathers and others, 1981) and can yield up

to 480 gal/min (Hodson and others, 1973). It is at a depth of approximately 6,265-7,000 feet at the Ross site. TDS concentrations are highly variable but generally greater than 3,000 mg/L away from outcrop and east of the Black Hills monocline (Feathers and others, 1981). Figures 31-32 of Petrotek (2010) show several oil wells south of the disposal well field have water with TDS of 3,000-10,000 mg/L and others to the west and southwest have water with TDS greater than 10,000 mg/L.

The Madison is the most prolific aquifer in northeastern Wyoming. Water quality is unlikely to be much worse than that of the Deadwood. It is not likely to be exploited near the Ross project because of its great depth, probably poor water quality, and possible absence of karst. Nonetheless, it is a more favorable water supply prospect than the Deadwood or Flathead.

Surface water sources may be available to future residents near the Ross project. The project is located in the Belle Fourche River basin but the Cheyenne River basin is nearby. The Belle Fourche River Compact of 1943 severely limits the construction of new reservoirs but available annual flow "in excess of current Wyoming water demands" is 1,100-15,600 acre-feet, depending on whether the weather is dry or wet. The annual flow "in excess of current Wyoming water demands" in the Cheyenne River basin has been estimated as 5,000-103,000 acre-feet, depending on weather, but it is not known how much of this would be available to Wyoming until a compact with South Dakota is finalized (HKM Engineering and others, 2002).

Surface water sources are not currently used for drinking water due to poor water quality. Winter flows in the Belle Fourche River near Devil's Tower, east of Ross, have TDS concentrations of 1,000-2,000 mg/L. Winter flows in Beaver Creek and the Cheyenne River near the South Dakota border have TDS concentrations greater than 2,000 mg/L (Hodson and others, 1973). These sources have better water quality than the Deadwood and Flathead aquifers.

Rural residents have another economical alternative to a deep well water supply. Several water systems around the state sell bulk water, including those for Laramie, Lander, Douglas, and Gillette. Gillette's July 2009 bulk rates were \$6.00 for the first 2,000 gallons and \$5.00 for each additional 1,000 gallons. If a family of three used a below-average 100 gallons per day per person, as several Wyoming communities do, their monthly water demand would be 9,132 gallons per month and it would cost them about \$42.00 per month if they filled up a tank once per month. That is well within the range of monthly water costs for urban Wyoming residents although a tank, trailer, and fuel for hauling would be additional costs. In comparison, the annualized capital cost of a typical \$33,000, 800 feet deep domestic well that lasts 30 years would be \$1,100, or \$91.67 per month. Debt service (if any), well operation, and maintenance costs would be additional.

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- State Engineer's Office, 2005, Preliminary opinion of Water Supply and Water Yield Analysis for Basin Electric's proposed coal-fired power generation plant at the Dry Fork Mine, Campbell County, Wyoming: Technical Memorandum, Industrial Development and Siting Council,
- Weston Engineering, 1994, Final report - Vista West water supply project, Level II: Technical Report for Wyoming Water Development Commission.



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

February 23, 2011

CERTIFIED

Mr. Tony Simpson
Strata Energy Inc.
406 W. 4th Street
Gillette, WY 82716

RE: Strata Energy, Inc. -- Ross Disposal Injection Wellfield
Draft Permit **10-263**, Class I Non-hazardous
Crook County, Wyoming

Dear Mr. Simpson:

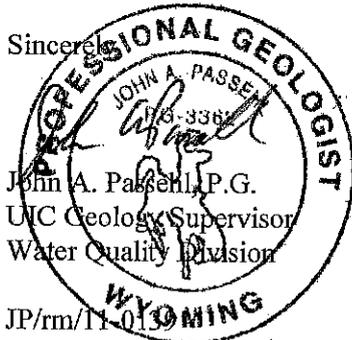
Strata Energy, Inc. has submitted an application for five (5) proposed Class I injection wells to dispose of waste water from the in-situ subsurface leaching and recovery of uranium.

The Department of Environmental Quality (DEQ) intends to issue an underground injection control permit for the proposed facility located in Sections 18, 19; Township 53 North; Range 67 West; and Section 13; Township 53 North; Range 68 West.

The draft permit and public notice have been posted at <http://deq.state.wy.us/wqd/events/index.asp> for you and the public to review. The entire application can be viewed at <https://gem.trihydro.com/>
If you have any questions, feel free to contact me at (307) 777-5623 or jpass@wyo.gov. Comments should be submitted in writing to the UIC Supervisor of the Water Quality Division within the next thirty (30) days.

Thank you for your cooperation.

Sincerely,



John A. Passeri, P.G.
UIC Geology Supervisor
Water Quality Division

JP/rm/11-0159

cc: Kevin Frederick, Ground Water Section Manager, WDEQ
WDEQ UIC file

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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Matthew H. Mead, Governor

John Corra, Director

February 23, 2011

CERTIFIED

Patricia Hamilton
Bureau of Land Management
280 Highway 191 North
Rock Springs, WY 82901

RE: Strata Energy, Inc. – Ross Disposal Injection Wellfield
Draft Permit 10-263, Class I Non-hazardous
Crook County, Wyoming

Dear Ms. Hamilton:

Strata Energy, Inc. has submitted an application for five (5) proposed Class I injection wells to dispose of waste water from the in-situ subsurface leaching and recovery of uranium.

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Thank you for your cooperation.

Sincerely,

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

JP/rm/11-0139

cc: Kevin Frederick, Ground Water Section Manager, WDEQ
WDEQ UIC file

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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Matthew H. Mead, Governor

John Corra, Director

February 24, 2011

CERTIFIED

Theresa Curren
Crook County Public Works
P.O. Box 995
Sundance, WY 82729

RE: Strata Energy, Inc. – Ross Disposal Injection Wellfield
Draft Permit 10-263, Class I Non-hazardous
Crook County, Wyoming

Dear Ms. Curren:

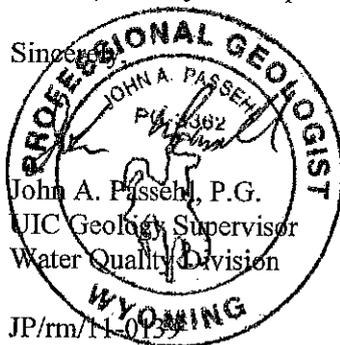
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Thank you for your cooperation.

Sincerely,



John A. Pissehl, P.G.
UIC Geology Supervisor
Water Quality Division

JP/rm/rl 0139

cc: Kevin Frederick, Ground Water Section Manager, WDEQ
WDEQ UIC file

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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Matthew H. Mead, Governor

John Corra, Director

February 24, 2011

CERTIFIED

Rick Huber
Wyoming Game and Fish Department
5400 Bishop Blvd.
Cheyenne, WY 82002

RE: Strata Energy, Inc. – Ross Disposal Injection Wellfield
Draft Permit **10-263**, Class I Non-hazardous
Crook County, Wyoming

Dear Mr. Huber:

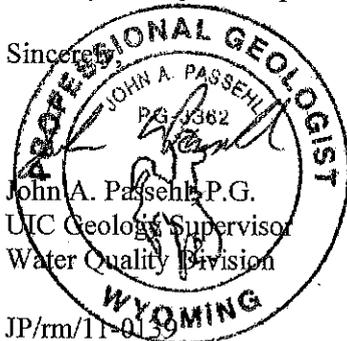
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Thank you for your cooperation.

Sincerely,



John A. Passehl, P.G.
UIC Geology Supervisor
Water Quality Division
WYOMING

JP/rm/11-0139

cc: Kevin Frederick, Ground Water Section Manager, WDEQ
WDEQ UIC file

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 777-5616	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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Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

February 24, 2011

CERTIFIED

Steve Ingle
DEQ, Land Quality Division
122 West 25th Street
Cheyenne, WY 82002

RE: Strata Energy, Inc. – Ross Disposal Injection Wellfield
Draft Permit 10-263, Class I Non-hazardous
Crook County, Wyoming

Dear Mr. Ingle:

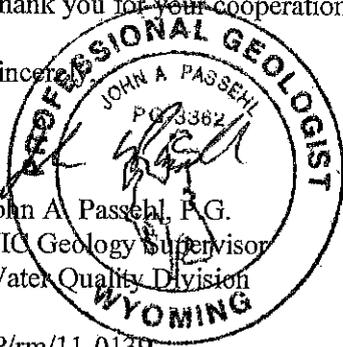
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Thank you for your cooperation.

Sincerely,



John A. Passehl, P.G.
UIC Geology Supervisor
Water Quality Division
WYOMING

JP/rm/11-0139

cc: Kevin Frederick, Ground Water Section Manager, WDEQ
WDEQ UIC file

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) 777-6146 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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Department of Environmental Quality

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Matthew H. Mead, Governor

John Corra, Director

February 24, 2011

CERTIFIED

Janie Nelson
Wyoming Oil and Gas Conservation Commission
P.O. Box 2640
Casper, Wyoming 82602

RE: Strata Energy, Inc. – Ross Disposal Injection Wellfield
Draft Permit **10-263**, Class I Non-hazardous
Crook County, Wyoming

Dear Ms. Nelson:

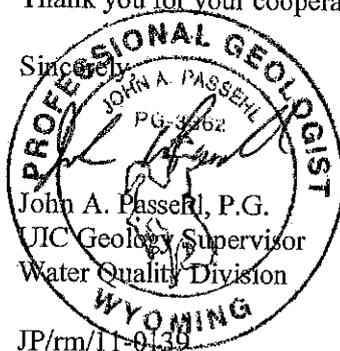
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The Department of Environmental Quality (DEQ) intends to issue an underground injection control permit for the proposed facility located in Sections 18, 19; Township 53 North; Range 67 West; and Section 13; Township 53 North; Range 68 West.

The draft permit and public notice have been posted at <http://deq.state.wy.us/wqd/events/index.asp> for you and the public to review. The entire application can be viewed at <https://gem.trihydro.com/>. If you have any questions, feel free to contact me at (307) 777-5623 or jpasse@wyo.gov. Comments should be submitted in writing to the UIC Supervisor of the Water Quality Division within the next thirty (30) days.

Thank you for your cooperation.

Sincerely,



John A. Passeri, P.G.
JIC Geology Supervisor
Water Quality Division

JP/rm/11-0139

cc: Kevin Frederick, Ground Water Section Manager, WDEQ
WDEQ UIC file

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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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

February 24, 2011

CERTIFIED

Lisa Lindemann
Wyoming State Engineer's Office
122 West 25th Street
Cheyenne, Wyoming 82002

RE: Strata Energy, Inc. – Ross Disposal Injection Wellfield
Draft Permit **10-263**, Class I Non-hazardous
Crook County, Wyoming

Dear Ms. Lindemann:

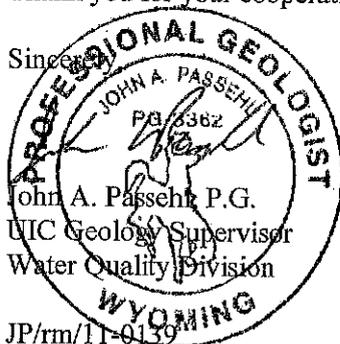
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The Department of Environmental Quality (DEQ) intends to issue an underground injection control permit for the proposed facility located in Sections 18, 19; Township 53 North; Range 67 West; and Section 13; Township 53 North; Range 68 West.

The draft permit and public notice have been posted at <http://deq.state.wy.us/wqd/events/index.asp> for you and the public to review. The entire application can be viewed at <https://gem.trihydro.com/>. If you have any questions, feel free to contact me at (307) 777-5623 or jpasse@wyo.gov. Comments should be submitted in writing to the UIC Supervisor of the Water Quality Division within the next thirty (30) days.

Thank you for your cooperation.

Sincerely,



John A. Passehl, P.G.
UIC Geology Supervisor
Water Quality Division
JP/rm/11-0139

cc: Kevin Frederick, Ground Water Section Manager, WDEQ
WDEQ UIC file

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) 777-6146 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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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

February 24, 2011

CERTIFIED

Sara Needles
State Historic Preservation Office
2301 Central Avenue
Barrett Building, 3rd Floor
Cheyenne, WY 82002

RE: Strata Energy, Inc. – Ross Disposal Injection Wellfield
Draft Permit **10-263**, Class I Non-hazardous
Crook County, Wyoming

Dear Ms. Needles:

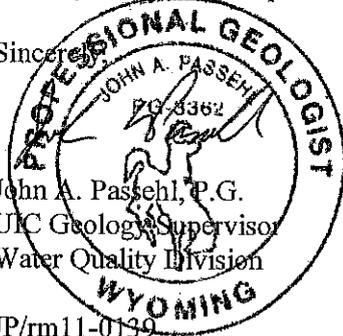
Strata Energy, Inc. has submitted an application for five (5) proposed Class I injection wells to dispose of waste water from the in-situ subsurface leaching and recovery of uranium.

The Department of Environmental Quality (DEQ) intends to issue an underground injection control permit for the proposed facility located in Sections 18, 19; Township 53 North; Range 67 West; and Section 13; Township 53 North; Range 68 West.

The draft permit and public notice have been posted at <http://deq.state.wy.us/wqd/events/index.asp> for you and the public to review. The entire application can be viewed at <https://gem.trihydro.com/>
If you have any questions, feel free to contact me at (307) 777-5623 or jpass@wyo.gov. Comments should be submitted in writing to the UIC Supervisor of the Water Quality Division within the next thirty (30) days.

Thank you for your cooperation.

Sincerely,



John A. Passehl, P.G.
UIC Geology Supervisor
Water Quality Division
JP/rm11-0139

cc: Kevin Frederick, Ground Water Section Manager, WDEQ
WDEQ UIC file

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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STATEMENT OF BASIS FOR A UIC PERMIT

I. General information.

- A. UIC Permit Number: **10-263**
- B. Facilities Covered: Strata Energy, Inc., Ross DW No. 1, 2, 3, 4, 5
- C. Class of Facility: Class I Non-Hazardous (Wyoming Water Quality Rules and Regulations, Chapter 13)

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 | Yes |
| C. Chapter 11 | Yes | F. Chapter 16 | No |

III. Basis for issuing a 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 archives 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 February 28, 2011 and ending on March 29, 2011 (30 day notice as required by Wyoming Water Quality Rules and Regulations, Chapter 13). This notice was published in the Gillette-News Record 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 13, Section 5. This review was performed by John A. Passehl, P.G., Geological Supervisor, and completed on January 11, 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".

GDL/JP/rm/11-0139

**UNDERGROUND INJECTION CONTROL PROGRAM
REVIEW COMMENTS:
PLANS/SPECIFICATIONS/PROPOSALS/REPORTS**

***WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION***

Herschler Bldg., 4 West
Cheyenne, Wyoming 82002
307-777-7781

PROJECT: Application 10-263
Strata Energy, Inc: Ross Disposal Injection Wells

LOCATION: Crook County

APPLICANT: Strata Energy, Inc.
406 W. 4th Street
Gillette, WY 82716

OWNER: Tony Simpson

CONSULTANTS:

GEOLOGIST Petrotek Engineering Corporation
Hal Demuth, P.G.

ENGINEER Petrotek Engineering Corporation
Ken Cooper, P.E.

TITLE: *"UIC Permit Application Class I Injection Wells Ross Disposal Wells, Crook County,
Wyoming Strata Energy, Inc."*

PLANS SPECS PROPOSAL REPORT

DATE ON PROPOSAL/PLANS/REPORT: June 2010

DATE RECEIVED BY WDEQ: June 23, 2010

WDEQ REVIEWER: John A. Passehl, P.G.
GEOLOGIST

DATE OF THIS REVIEW: October 19, 2010

ACTION: Application Incomplete; See Attached Comments

I. WDEQ Comments:

Specific Comments - Additional Information Required (**John Passehl: 777-5623**)

1. Please explain why the *Depth to Water in USDW* in Table 7 of your report is 0 feet. Also, please explain why you used *Head in USDW from base of Flathead (W)* of 8,755.
2. Please provide an Area of Review calculation using the 9 lb mud method as described in previous ISR permit applications.
3. Please explain why a BHT of 154 F was used for calculating K, when Table 5 of the report indicates a BHT of 121 F-128 F is more appropriate for the injected formations. Please revise K and AOR calculations accordingly.
4. Please explain the final disposition of the Madison test well (API 4901109528). Also, please provide all water quality analysis from this well for all formations that were sampled.
5. Please explain the potential for the Madison formation (updip from the Ross injection site) to be either impacted by pressure fronts or contaminated by injectate from this project (now and in the future).
6. Please explain the potential for each of the following well fields to be either impacted by pressure fronts or contaminated by injectate from this project: City of Gillette well field located in T51N, R66W; Town of Pine Haven/Moorcroft well field located in T50N; R66W; Town of Hulett well field located in T54N, R65W, WWDC wells located in T54N, R61W, and City of Sundance well field located in T51-52N, R63W.
7. The financial assurance amounts for the proposed wells are deemed sufficient. Please contact Jessica Wales of this Department when you are ready to finalize financial assurance requirements of the permit (307-777-7082). Financial assurance requirements must be met for each well prior to commercial injection.



Department of Environmental Quality



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

Dave Freudenthal, Governor

John Corra, Director

October 29, 2010

Mr. Tony Simpson
Strata Energy Inc.
406 W. 4th Street
Gillette, WY 82716

RE: Strata Energy, Inc. – Ross Disposal Injection Wells
Draft Permit 10-263, Class I Non-hazardous Injection Wells
Crook County, Wyoming

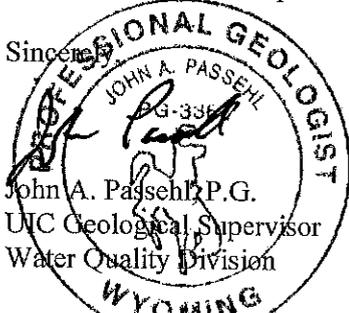
Dear Mr. Simpson:

Attached, please find comments developed by the Wyoming Department of Environmental Quality (WDEQ) with respect to the content and adequacy of the Wyoming Water Quality Rules and Regulations, Chapter 13, Class I permit application.

The WDEQ received this application on June 23, 2010 and has until August 23, 2010 to make an initial determination of completeness. Please note that recent work load has increased our response times. Re-submittal of information by an applicant on an incomplete application will begin a new 60 day review process. Pursuant to Chapter 13, Section 6 during any 60 day review period where an application is determined complete, a draft permit for issuance or denial shall be prepared and a public notice provided pursuant to Chapter 13, Section 19.

Please feel free to contact me at (307) 777-5623 should you have any questions related to these comments or the application and review process.

Sincerely,



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

JP/rm/10-0928

Attachments: WDEQ Comments

cc: Petrotek Engineering Corporation, Attn: Hal Demuth, 10288 West Chatfield Avenue, Suite 201, Littleton, CO 80127
Kevin Frederick, WDEQ
Wyoming Oil and Gas Conservation Commission, Attn: Ms. Janie Nelson, P.O. Box 2640, Casper, WY 82602
WDEQ UIC file





Department of Environmental Quality



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

Dave Freudenthal, Governor

John Corra, Director

July 21, 2010

Debby Dellai-Boese, Chairman
Sweetwater County Board of Commissioners
80 West Flaming Gorge Way
Green River, WY 82935

Subject: Non-Adverse Recommendation, Washam Creek Subdivision, Sweetwater County, DEQ/WQD Application # 10-264

Dear Madam Chairman:

The Wyoming Department of Environmental Quality has completed the review of the proposed Washam Creek Subdivision located in the SW 1/4 Sec 21 and the NW1/4 Sec 28 T12N, R109W, 6th P.M., Sweetwater County, Wyoming. Generally described, the property is located 1/4 mile northeast of the Town of Manila, Utah, along the border of Wyoming. The Washam Creek Subdivision will create 4 one-acre residential lots and one 19 acre lot. The information was submitted by UESI/Rock Springs, signed by Robert Young, P.E., a Wyoming Licensed Engineer. This letter represents the recommendations of the Wyoming Department of Environmental Quality as required by W.S. 18-5-306(c).

Findings as to the safety and adequacy of the proposed sewage system:

The proposed sewage systems are to be on-site conventional septic systems with leach fields. The information submitted addresses the safety and adequacy of the proposed sewage system.

Findings as to the safety and adequacy of the proposed water system:

The proposed water system is to be an extension of the existing public water distribution system for the Town of Manila, Utah.

Notes required to be added to the final plat, and other pertinent documents:

It is the responsibility of the subdivision owner to contact the Wyoming Department of Environmental Quality, Water Quality Division at 510 Meadowview Drive, Lander, WY 82520, Southwest District Engineer (307-332-3144) to obtain a Permit to Construct to authorize construction of a water main to serve the subdivision. It is the Individual lot owner's responsibility to contact the Sweetwater County Environmental Health Service (307-352-6709) at 550 Uinta Drive, Suite D, Green River, WY 82935 to obtain a Permit to Construct to authorize the construction of a septic system with leach field.

Page 1 of 2

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



Sweetwater County Board of Commissioners
July 21, 2010

Conclusions:

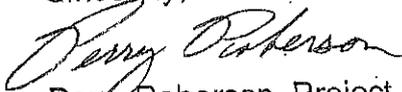
The Department of Environmental Quality has "Non- Adverse" recommendations applicable to Washam Creek Subdivision.

Disclaimer:

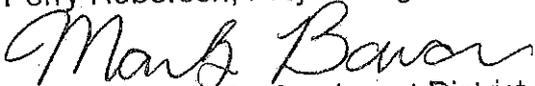
The Non-Adverse recommendation provided above has nothing to do with, nor has any bearing on the water rights associated with Washam Creek Subdivision. Any questions or concerns about the water rights for the Washam Creek Subdivision should be directed to the State Engineer's Office.

Nothing in Department of Environmental Quality recommendations or comments regarding UESI/Rock Springs proposal, for Washam Creek Subdivision shall be construed to relieve either Ed Harbertson of the obligation to obtain any permits or additional approval from any local, state or federal agencies as required by law, rules, regulations, or ordinances. Nothing in these recommendations commits the Department of Environmental Quality or Sweetwater County to the issuance of required permits for construction, operation, or modification of water supply or sewage systems.

Sincerely,



Perry Roberson, Project Engineer



Mark Baron, P.E., Southwest District Engineer

Water and Wastewater Program, Wyoming Water Quality Division
PDR/pdr

xc:

Robert Young, P.E., UESI/Rock Springs, 2638 Commercial Way,
Rock Springs, WY 82901

Ed Harbertson, Owner, 744 N 5500W, Ogden, UT 84404

Mark Kot, Sweetwater County Planning & Zoning, 80 West Flaming Gorge Way, Green
River, Wyoming 82935

Mr. Mike Ebsen, Water Management Specialist, Wyoming State Engineers Office,
Herschler Building, 4th Floor East, Cheyenne, WY 82002

IPS & Lou Harmon, WDEQ/WQD, Cheyenne

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
PERMIT TO CONSTRUCT

PERMIT NO. 10-265

Reference Permit No. 07-496

Land Application of Produced CBM Water
South Prong Managed Irrigation Project - Renewal

This permit hereby authorizes the applicant:

Williams Production RMT Company
300 North Works Avenue
Gillette, Wyoming 82716

to construct, install or modify a land application water system for produced CBM discharge water procedures and conditions of the application number 10-265. The facility is located in northeast quarter of Section 15 and southeast quarter of Section 10, Township 49 North, Range 76 West in the county of Johnson, in the State of Wyoming. The facility is located approximately 35 miles southwest of Gillette, Wyoming. This permit shall be effective until July 1, 2015.

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 land application 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 land application is located 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.

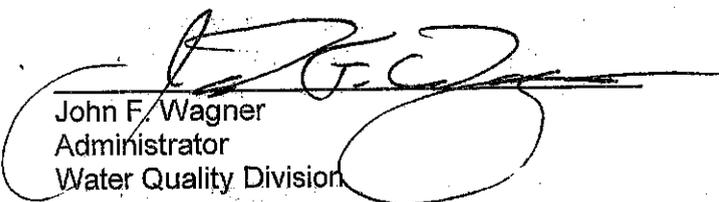
The permittee shall conduct permitted land application in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization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

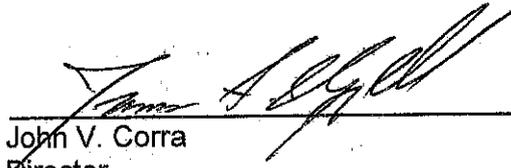
In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions:

- 1 of 4 The applicant will provide immediate oral or written notice to the DEQ/WQD CBM/Oil and Gas Group 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 The applicant shall submit an annual report to the department providing relevant details of the land application, including quantity of water applied, quality of water applied, type and quantity of soil amendments applied, any violations of DEQ regulations (WYPDES or groundwater), soil sampling data from the land receiving the water, and any other information deemed applicable by the department.
- 3 of 4 Within sixty days of completion of the land application, the applicant will submit to the DEQ/WQD Northeast District Office on the form provided (CERTIFICATION OF COMPLETION), the following information:
 - a. Dates that the land application was initiated and terminated for the irrigation season; and
 - b. Certification the land application was performed in accordance with the terms and conditions of the permit; or
 - c. Certification the land application was completed with changes or modifications. Submittal of documentation of the land application sites where the changes or modifications were performed if appropriate. All modifications or deviations from the authorized plans must be highlighted; and
 - d. Landowner certification and applicable documentation that the site has been properly reclaimed.

4 of 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

6-30-10
Date of Issuance

KJM/rm/10-0549
cc: WDEQ Casper Field Office

STATEMENT OF BASIS

1. Permit Number: 10-265 (renewal of Permit No. 07-496)
2. Application reviewed for compliance with the following applicable regulations :
 - a. Chapter 11.
3. Does the permit comply with all applicable regulations identified above?

Yes

Application requires review to determine groundwater impacts in accordance with Section 17, Chapter 3

The water is being applied at an agronomic rate determined by soil testing to prevent groundwater impacts. Applicant has submitted annual permits as required under previous permit.

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 III, Wyoming Water Quality Rules and Regulations. This review was performed by Kim Medina, and completed on June 25, 2010. 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
No Public Water System Number Assigned

PERMIT NO. 10-266R

Eden Valley Improvement District - New Community Hall Water System

This permit hereby authorizes the applicant:

Kim Brown
Eden Valley Improvement District
P.O. Box 44
Farson, WY 82932

to construct a public water system consisting of a new water well with a pitless unit, 230 linear feet of 3-inch PVC water main, a ventilated control room with a chlorinator to serve a 400 person capacity community hall according to the procedures and conditions of the application number 10-266R. The facility is located southwest of the intersection of Highways 191 and 28 just west of the unincorporated Town of Farson at SW ¼ Section 27, T25N, R106W in the county of Sweetwater, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed by October 1, 2012.

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.

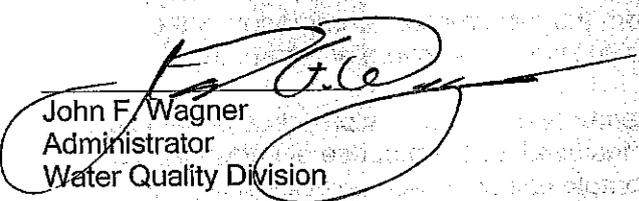
The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

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 4 The applicant will provide immediate oral or written notice to the Wyoming Department of Environmental Quality, Water Quality Division (WQD), Southwest District Engineer, 510 Meadow View Drive, Lander, WY 82520, 307-332-3144, FAX 307-332-3183, 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 Within sixty days of completion of construction of the authorized facility, the applicant will submit to the Northwest District 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 of 4 Water quality data such as that for bacteriological contaminants, inorganic contaminants (IOC), volatile organic contaminants (VOC), synthetic organic contaminants (SOC) and radionuclide contaminants must be submitted before any new water well is put into service. The well water quality must be in compliance with the United States Environmental Protection Agency (USEPA) National Primary Drinking Water Standards.
- 4 of 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

10-4-10
Date of Issuance

MDB/rm/10-0886

STATEMENT OF BASIS

1. Permit Number: 10-266R
2. Application reviewed for compliance with the following regulations:
Chapters 3 and 12 of the Wyoming Water Quality Rules and Regulations.
3. Does the permit comply with all applicable regulations identified above?
Yes.
4. If a Section 17 of Chapter 3 review is required indicate the basis for determining groundwater will be protected.
Not Required.
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 Mark D. Baron, P.E., mbaron@state.wy.us, Southwest District Engineer and completed on October 1, 2010. 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."

cc: Nate Reeve, P.E., Reeve and Associates, Inc., 4155 South Harrison Blvd., Suite 310, Ogden, UT 84403



Department of Environmental Quality



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

Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 2, 2010

Mayor Rosalie Brimmer
Town of Moorcroft
PO Box 70
Moorcroft, WY 82721

RE: Madison Pump Station Small Wastewater System, Crook County
Location: NE ¼ NE ¼, Section 32, T50N, Range 66W;

Permit # 10-267

Dear Mayor Brimmer:

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

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/10-0568

cc: IPS, Cheyenne
WYDEQ Casper File
Tim Lyons, Crook County Growth and Development, PO Box 848, Sundance, WY 82729
Jerry Hunt, Weston Engineering, PO Box 260, Upton, WY 82730

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

ADMIN/OUTREACH (307) 777-7937 FAX 777-3610	ABANDONED MINES (307) 777-6145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7369 FAX 777-5973	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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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 23, 2010

United States Forest Service
Attn: Malinda Horitski, Contracting Officer
2468 Jackson Street
Laramie, Wyoming 82070

RE: LaPrele Guard Station – Septic Tank Replacement,
Location: NW¼ NE¼, Section 28, T29N, R75W,

Application No. **10-268**
Converse County

Dear Ms. Horitski:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of replacing a deteriorated old 500 gallon metal septic tank with a new 1500 gallon concrete septic tank at a US Forest Service Ranger Station with a building used for a dwelling and a combination purpose building 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 11, Part D 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 August 23, 2012. Please reference Application Number **10-268** in any future correspondence.

If you have any questions, please contact me at either rewald@wyo.gov or (307) 777-6183.

Sincerely,

Ronald L. Ewald
Project Engineer
Southeast District, Water Quality Division

RLE/rm/10-0650

Enclosures: GENERAL PERMIT - Small Wastewater Facility
Certificate of Completion

cc: IPS, Cheyenne
Jennifer Merrill, President, Merrill, INC., P.O. Box 20519, Cheyenne, WY 82003
Holly Richardson, Converse County Office of Special Projects, 107 N. 5th,
Suite B-6, Douglas, Wyoming 82633

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

ADMIN/OUTREACH (307) 777-7937 FAX 777-3610	ABANDONED MINES (307) 777-6145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7369 FAX 777-5973	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



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

Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

August 9, 2010

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

RE: Brush Creek Ranch – Founders' Cabin Septic System,
Location: NW¼, Section 27, T16N, R82W,

Application No. **10-269**
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 concrete septic tank and a chamber leachfield for a **4 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 11, Part D 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 August 9, 2012. Please reference Application Number 10-269 in any future correspondence.

If you have any questions, please contact me at either rewald@wyo.gov or (307) 777-6183.

Sincerely,

Ronald L. Ewald
Project Engineer
Southeast District, Water Quality Division

RLE/rm/10-0688

Enclosures: GENERAL PERMIT - Small Wastewater Facility
Certificate of Completion form

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 St.
Suite 336, Rawlins, Wyoming 82301

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

ADMIN/OUTREACH (307) 777-7937 FAX 777-3610	ABANDONED MINES (307) 777-6145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7369 FAX 777-5973	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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REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION

Herschler Bldg., 4 West
Cheyenne, Wyoming 82002

PROJECT: Brush Creek Ranch – Founders' Cabin Septic System

LOCATION: NW¼, Section 27, T16N, R82W, Carbon County

ENGINEER: Mark Butler
Inberg-Miller Engineers
350 Parsley Boulevard
Cheyenne, Wyoming 82007
Ph: (307) 635-6827

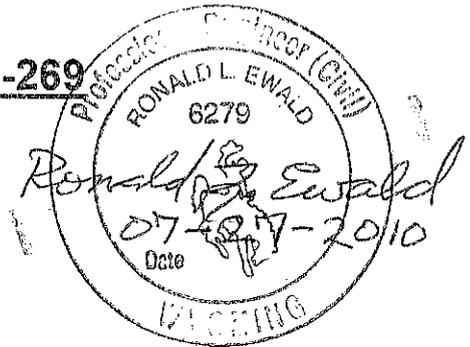
APPLICANT: Brush Creek LLC
Attn: Lawrence E. Burnell, Assistant Manager
Star Route 10
Saratoga, Wyoming 82331
Ph: (219) 769-3267

WATER QUALITY DIVISION REFERENCE #:

10-269

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

DATE OF REVIEW: July 27, 2010



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. Mound and Trench Construction Details - several aspects of the mound and/or trench construction are not sufficiently detailed or described in the application materials. The lacking information is described below:
 - a. What are the steps, in order, that are planned to construct the mound area? Note 7 on Sheet C2.0 says all topsoil is to be removed prior to installation of pipe and infiltrator chambers. How deep, and what is the goal to remove? Will the mound be built in lifts and each lift compacted? How will compaction be done and how will it be verified? Will the Infiltrator trenches (or bed?) be excavated from the completed and compacted mound, or will the mound be built up around the Infiltrator chambers that are placed at the correct level beforehand? More information and detail is needed to explain how this will all come together.
 - b. The bottom footprint of the mound must be "keyed" in below the ground surface, and not be feathered in on top of the existing sloped ground surface. This means remove at least 6" of the existing ground surface under the planned area of the mound footprint so that all vegetation, roots, and organic material is removed before starting to construct the mound.
 - Special care must be taken all along the downhill side of the mound to make sure that this bottom area is keyed into the slope below the original ground surface to prevent effluent breakout.
2. Leachfield and Infiltrator Trench Cross Section Drawings Inadequate - the "whole" leachfield cross section shown on Sheet C2.0 is too small to show the type of details described in item 1 above. Additionally, it does not show a distinction between undisturbed native soil and where the fill soil is at. Next, the Infiltrator chamber trench cross section on Sheet C3.0 shows the cross section of a chamber in a standard no mound, all trench below existing ground surface, which is not the case for this project. A larger scale cross section drawing through all four trenches and the mound construction area needs to be made which shows where the excavation ends and the undisturbed native soil begins, distinguishes between the different lifts of fill soil, and the completed mound shape. Also, go deep enough on the cross-section drawing to indicate the depth the groundwater is at below the mound footprint.
3. Leachfield Construction – Bed or Trenches? - when looking back and forth between the various plan drawings it is unclear if this leachfield is to be constructed as a bed with a stepped bottom, or individual trenches completed to different depths. The cross section drawing requested in item #2 above could go a long way to clearing this up.

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

PERMIT NO. **10-270**
SPECIAL CONDITIONS

Chevron, U.S.A. Moxa Field Emergency Pits

This permit hereby authorizes the applicant:

Chevron U.S.A.
760 Horizon Drive
Grand Junction, CO 81506

To construct, install or modify additional site characterization for light non-aqueous phase liquids (LNAPL) in the vicinity of TB-4W, former test borings TB-6 and TB-10, down-gradient of EP-MW-C/RW-2, and near EP-MW-B. A total of 8 to 10 locations will be drilled and if impacts or LNAPL are encountered a monitoring well will be completed according to the procedures and conditions of the application number **10-270**. The facility is located in SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 34, T.27.N., R.113.W. (6th P.M.) in the county of Sublette, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed by June 29, 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/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) 332-3144; FAX (307) 332-3183.

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. The applicant will provide immediate oral and/or written notice of any changes or modifications which are not consistent with the terms and conditions of this permit to the WDEQ, Water Quality Division, 510 Meadowview Drive, Lander, WY 82520; (307)332-3144; FAX (307)332-7726; in accordance with the provisions of Section 11, Chapter 3, Wyoming Water Quality Rules and Regulations.
2. Provide two (2) week notification to WDEQ personnel prior to initiating excavation activities.
3. Unless otherwise specifically noted herein, environmental activities approved per this permit, such as any excavation, soil disposal, well abandonment and replacement, confirmation sampling, shall be performed as proposed in the June 29, Chevron U.S.A.- 2010 Additional Groundwater Monitoring/Groundwater Remediation Wells for the LaBarge Emergency Pits Site (Permit N° 00-045).
4. Soil and liquids derived from the installation must be properly disposed of in accordance with WDEQ regulations.
5. All other necessary permits need to be applied for separately.
6. Within 60 days following the completion of the installation and other activities detailed in the proposal, a completion report shall be submitted that includes details of the excavation, confirmation sampling, soil and liquid amounts, disposal detail, appropriate maps, replacement monitoring well installation as described above, and any other pertinent data. This completion report must include conclusions and recommendations.
7. After the monitoring well(s)/piezometer(s)/recovery well(s) have fulfilled their useful purpose, they shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 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.
8. 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 onsite if deemed necessary.

9. 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. The new wells will be incorporated into the existing groundwater monitoring program.
10. The applicant is responsible for obtaining any permits required by the State Engineer's Office (777-7354).
11. ***Environmental Monitoring Program for Groundwater of the State:***
 - i. 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.
 - ii. The permittee shall maintain records of all monitoring information for a period of at least 3 years.
 - iii. Records of monitoring information shall include:
 - iv. The date, exact place, and time of sampling or measurements;
 - v. The name(s) of individual(s) who performed the sampling or measurements;
 - vi. 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.
 - vii. Sampling procedures and sample preservation accomplished;
 - viii. The date(s) analyses were performed;
 - ix. Names of individuals who performed the analyses;
 - x. The analytical techniques or methods used; and
 - xi. The results of such analyses.
 - xii. The field parameters to be recorded shall include water level, temperature, pH, specific conductance as a minimum.
 - xiii. Groundwater samples from the monitoring wells shall be analyzed as indicated on the following table. This table supersedes previous permit requirements.

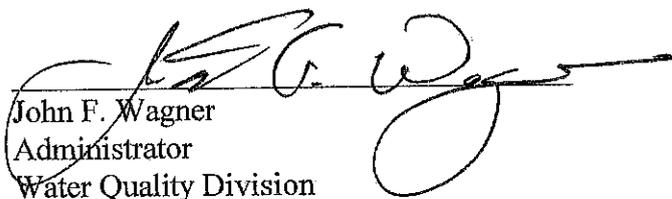
Chevron U.S.A. LaBarge Plant GW Monitoring
 Permit # 10-270

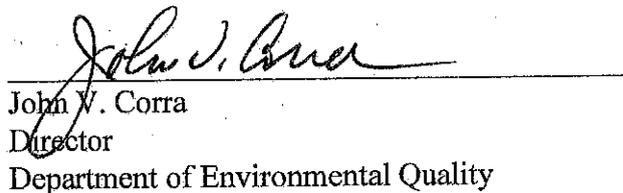
WELL NAME OR NUMBER	SAMPLING FREQUENCY	ANALYTICAL METHOD(S)	PARAMETER(S) ANALYZED	PERMIT LIMIT
New and Existing Monitoring wells	Semi-annual (Spring & Fall)	EPA 8015	TPH-DRO and GRO	
		EPA 8260	BTEX	

* 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.

12. 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 F. Wagner
 Administrator
 Water Quality Division


 John V. Corra
 Director
 Department of Environmental Quality

8/13/10
 Date of Issuance

JOC/rm/10-0694

**WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
GPC SECTION/GROUNDWATER PROGRAM
WATER QUALITY DIVISION**

510 Meadowview Drive
Lander, Wyoming 82520
(307) 332-3144

Site Name: Chevron, U.S.A. Moxa Field
Site Status: Site Remediation & Additional Characterization

Applicant:	Engineer/Consultant:
Mr. Michael DeBerry Chevron U.S.A., Inc. 760 Horizon Drive Grand Junction, CO 81506 (970) 257-6007	Mr. James W. Hix, P.G. Senior Project Geologist Olsson Associates 4690 Table Mountain Drive, #200 Golden, CO 80403 (303) 237-2072

Water Quality Division Reference (Permit) Number: 10-270; 00-045 (previous)

Existing New As-Built

Name of Proposal: Chevron U.S.A. Moxa Field- Additional Groundwater Monitoring/
Groundwater Remediation Wells for the LaBarge Emergency Pits Site
(Permit No. 00-045)

Plans Specs Proposal Report

Date on Proposal/Plans/Report: June 29, 2010

'Conditions' to Any WQD Permit: No Yes

LOV, NOV or Other Enforcement: No Yes

Reviewing Official: _____ **Original Chronology:** Mark Thiesse, P.G.
James P. O'Connor, P.G. 1997 thru 2004

Date of this review: July 28, 2010

Action: Report & proposal approved as submitted

COMMENTS- GROUNDWATER SECTION**1. SITE SUMMARY:**

- a. **Site Description:** The LaBarge Emergency Pits site is located in the LaBarge Oilfield Unit. The pits are located in SE¼NW¼, §34, T.27 N., R.113 W., (6th P.M.), Sublette County, Wyoming. The site consists of the three pits, a tank battery and associated loading and transportation pipelines. Fluids from producing wells which includes crude oil, natural gas, condensate and produced water are handled at the site. The pits were formerly used as temporary and emergency storage of water during system upsets or when the volume of water exceeded injection capacity. The pits were closed between October 1992 and September 1993. The pits were decommissioned in compliance with Wyoming Oil and Gas Conservation Commission (WOGCC) procedures and replaced with a 6,500 barrel steel tank in September 1992.

The site was originally a WQD site, but was turned over to the WOGCC in 1993 because the source of contamination was thought to be from exploration and production activities. However, data suggests that the release was from transportation activities. This information combined with the presence of significant groundwater contamination, resulted in the site being placed once again under the under WQD jurisdiction. This occurred in the fall of 1999.

- b. **Hydrogeology:** Subsurface investigations were performed at the site from August 1993 to June 1999. The site consists of a surface layer of colluvium estimated to be upwards of 13 feet thick, underlain by the Wasatch formation. The colluvium consists of unconsolidated clay, silty clay, sand, and gravelly sand deposits. Some alluvium is present along creeks and drainages in the area. The Wasatch formation consists of interbedded units of sandy, gray mudstone and muddy sandstone. The Wasatch is estimated to be 7,000 feet thick in this area. The groundwater encountered in both the colluvium and Wasatch exhibited elevated TDS values rendering it a Class N(A) water. Depth to groundwater ranged across the site from five (5) to 32 feet below ground surface due to topography. Groundwater flow direction was determined to be from west-southwest to east-northeast at a gradient of 0.025 feet per foot.
- c. **Potential Sources:** Three potential sources of contamination were identified: (1) the unlined pits, (2) the above ground tank battery and (3) the associated pipelines. The majority of the contamination found to be located adjacent to the tank battery.

2. SUMMARY OF WORK COMPLETED TO DATE:

- a. **Initial Investigation:** The 1997 report provided information about two historic investigations. In August 1993, six test pits were dug and groundwater was collected. This started the investigation activities at the site. Three monitoring wells were installed in July 1995 and groundwater samples were collected. Results from these investigations were not summarized in the 1997 report, and no reports on these investigations were found in the WQD files.
- b. **1997 Investigation:** In July 1997, 16 soil borings were installed in the area where the groundwater and soil contamination was previously identified. Five of the soil borings were

converted to monitoring wells. Groundwater samples were collected for analysis, along with the original three wells installed in 1995. The eight wells were re-sampled in December 1997. Monitoring wells MW-C (an original well) and TB-4W (a new well) were the only wells to display evidence of petroleum contamination. Both wells had levels of TPH (Total Petroleum Hydrocarbons) and BTEX (Benzene, Toluene, Ethylbenzene, and Xylene) concentrations in excess of WQD groundwater standards. Both wells contained free phase hydrocarbon (FPH). It was recommended that a recovery system be installed in the wells with FPH to aid the remediation of the site. No system was installed. Quarterly sampling was also recommended, and was performed on an irregular basis from July 1995 to June 1999.

The 1997 report suggested that the contamination was primarily condensate located in the vicinity of the 2,000 bbl storage tank in the tank battery. However due to the fact that the tank stored condensate, no firm source was identified. There was speculation that an adjacent 2,000 bbl tank may have been the source. However, this tank was previously removed at some unknown date in the 1970's.

- c. **August 1999 Investigation Report:** The report submitted by Highlander Environmental provided data from the June 1999 site investigation. In addition to the sample data from the eight existing monitoring wells an additional well was installed upgradient to provide background water quality information. The report also summarized the historical investigation activities and data. One observation from the 1995 data revealed an accumulation of FPH (condensate) in the groundwater in well MW-C. Wells MW-A and MW-B did not exhibit BTEX identified. The TPH values- ranging from 1 to 3 mg/L- were below the WQD standard of 10 mg/L.

In addition to depth to GW, FPH levels were included along with analytes BTEX, TPH and pH during the quarterly sampling events. The reports noted the following:

- FPH routinely detected in well MW-C
- BTEX detected in wells MW-C, TB-4W but rarely so in TB-5W
- TPH identified in wells MW-A, MW-B, TB-4W, TB-5W, TB-14W, TB-15W and TB-16W
 - With the exception of MW-C and TB-4W these wells were determined to have concentrations below WQD standards.

A field bail out test was performed in well MW-C in October 1998 to calculate the actual thickness of FPH in the formation. The actual thickness was calculated to be 0.10 feet.

In March 1999, in conjunction with the regular sampling event, a sample of the FPH was obtained for hydrocarbon fingerprinting. The fingerprinting reported significant levels of toluene, ethylbenzene and xylene. The results, consistent with the dissolved phase analysis, concluded that the contamination had a condensate source. The amount of benzene in the FPH was reduced, suggesting that the hydrocarbon has been degraded and was an older release. There was no evidence of heavy end hydrocarbons thus indicating that the release was not associated with crude oil.

Well TB-17 was completed as a background monitoring well. Due to high TDS and sulfates, 9,890 mg/l and 4,590 mg/l respectively, the groundwater is Classified as a Class IV(A) water of the state. The August report offered several recommendations in conjunction with the general remediation plan. The objectives of the plan were as follows:

- Remove FPH
- Contain dissolved phase groundwater contamination to prevent migration

- Effect groundwater remediation
- Continue to monitor the progress of groundwater clean-up

The new report provided details of this plan.

- d. **January 2000 Remedial Action Plan:** The WQD review of the report, dated August 1999, prompted a request for additional details pertaining to the remedial action. Texaco responded in January, 2000 with an assessment of possible options which included the remedial system design and operations and maintenance (O&M) manual as well as a schedule for installation and operation. Texaco also proposed a limited soil sampling event to determine the extent of soil contamination in the area around well TB-4W and TB-6W. The previous investigations had not included laboratory analysis of soil samples.

In summary, the assessment reviewed dual phase product recovery systems, eductor (jet pump) recovery-type units and also passive systems for FPH recovery. The eductor system was selected for the following reasons:

- Low operating costs
- Ease of operation
- Ease of "targeting" the FPH

Texaco also evaluated options for remediation of the dissolved phase contamination. Air sparging, pump and treat, and natural attenuation (NA) were evaluated. Texaco anticipated using NA as the remediation method for the dissolved phase contamination. However, this option was held in abeyance until the FPH is recovered. Additional treatment of the dissolved phase contaminant by means of the eductor system was anticipated thus potentially reducing the need for additional remediation.

The report provided a summary of the operation of the eductor system and the FPH removal. This system operates by pumping water at a relatively high pressure, through a nozzle in the eductor creating a vacuum in the well. A line is attached to the vacuum side of the eductor, drawing fluid or vapor from the well and entraining it with the pressurized fluid. The pressurized fluid is discharged into a tank where the water, oil and air are allowed to separate. The amount of recovery can be varied by the pressure of the "carrier fluid" to ensure the correct amount of fluid is being recovered. A single pump powers several wells. The eductors lack moving parts subject to wear out or maintenance. The remedial action plan provided a detailed O&M Plan that that included startup procedures and system trouble shooting. Texaco anticipated system installation within 120 days of formal approval. Texaco agreed to provide an initial report within 60 days of startup with an annual report thereafter. The plan stipulated that O & M information would be included in conjunction with the results from the groundwater sampling program.

- e. **2000 and 2001 System Monitoring Reports:** Texaco submitted a Startup Report, dated October 2000, that included 'as-built' diagrams and start-up conditions for the recovery system. The report also provided monitoring results for the first month of operation confirming that the system operated in compliance with the O & M.

In February and July 2001, Texaco provided a summary of the recovery system operation and groundwater monitoring results. As of July 2001, the system had recovered a combined total of 465 bbl of water and FPH. The data was not specific as to the percentage of each component. Groundwater monitoring data indicated that the dissolved phase plume remained relatively constant with slightly decreasing concentrations. The amount of FPH measured in well MW-C had increased to a maximum of 10 inches in May 2001. The report suggested

that this was an indication that the system is effectively concentrating the FPH in the vicinity of the recovery wells. The WQD requested that in order to better assess the progress of the remediation Texaco attempt to determine the amounts of water and FPH recovered.

- f. **2002 Annual Report:** This report provided the results of the June 2002 groundwater monitoring event only due to a change in both consultants and oversight by company personnel. By way of reminder, the site operator and responsible party changed from Texaco to Chevron-Texaco in 2002. The report noted that FPH was only found in MW-C with a thickness of 0.25 feet. Groundwater samples were analyzed for BTEX and TPH-GRO following previous procedures. Also an additional analysis for TPH-DRO was initiated with this event. The dissolved phase concentrations remained constant with no evidence of plume migration reported. The report states that ChevronTexaco and Cordilleran Compliance Services- the consultant for ChevronTexaco- will evaluate the historic recovery data and system performance and submit a separate report providing conclusions and recommendations to the WDEQ in late August or early September 2002.
- g. **2003 Annual Report:** This report provided the results of the 2003 groundwater monitoring and a summary of the recovery system operation. The recovery system, installed in October 2000, had not operated for the previous two years due to a drop in the water table. Drought conditions resulted in dry holes for recovery wells (RW-1, 2, and 3. Free phase hydrocarbons were present at the site only in well MW-C. ChevronTexaco began an interim measure for the FPH in well MW-C in July 2003. This consisted of "enhanced fluid recovery" (EFR) which a vacuum truck extracts FPH along with small amounts of GW from the adjacent formation. Thus stimulating for natural attenuation. ChevronTexaco proposed continuing the use of EFR when FPH is present.

The groundwater monitoring provided data demonstrating of dissolved phase hydrocarbon contamination concentrations in excess of WDEQ standards. After the Samples obtained subsequent to FPH removal revealed that dissolved phase contamination was the highest in well MW-C. No contamination was identified in down-gradient wells. Thus, indicating that the plume had not migrated away from the source area. Recommendations for future work included continued EFR as necessary in conjunction with the semi-annual sampling. Cordilleran Compliance Services also proposed modifications to the existing RAP as dictated by a re-evaluation of the data. The consult recommended that if the water table did not rebound, thus allowing the recovery wells to become operative again, other options would have to be considered.

- h. **2003 Monitoring Report:** Only minor comments were made pertaining to the 2003 report. The comments included:
- A request for additional information on the EFR action,
 - Information as to the disposal of the recovered liquid,
 - As in other cases involving the use EFR there have been concerns related to the potential for the air emissions from the vacuum truck to be high in hydrocarbons and possibly explosive. Has this been considered? What measures are being taken to insure this is not a safety issue?

The WDEQ review corrected one minor error in the report. Specifically, the report described the TPH-DRO value of 10 mg/l as a "MCL". The review stated that the action level for TPH-DRO and GRO are objectives only, and not an enforceable standard like an MCL. The report also stated that the recovery system has "never" recovered FPH. Mr. Thiesse' review stated that the February and July 2001 reports submitted by Texaco stated that as of July 2001, the

system has recovered 465 barrels of water and FPH.

- i. **Voluntary Remediation Program (VRP):** In a previous review WDEQ had requested Texaco to consider the options of continuing with the current Chapter 3 permitting process or changing to the new VRP administrative process. In the 2003 report Texaco indicated that they elected to remain with the Chapter 3 process.
- j. **2004 thru 2008 Monitoring Reports:** Results and observations similar to 2003 have been reported annually. For example, LNAPL was apparently isolated in proximity to the EP-MW-C well and the sipper recovery system continued to operate effectively. In an effort to reduce LNAPL mass, during the 2008 field season contaminated soils were excavated in the vicinity of the tank battery. The 2008 monitoring report highlighted the results of the PIANO analysis performed on samples from the tank battery and the LNAPL. While the results were not definitive, reasonable conclusions as to the similarities between the various samples were proffered. Also, in order to better define the architecture of the LNAPL plume and ascertain the source of the mass, the consultant recommended the installation of additional monitoring wells. WYDEQ informed Chevron that a 'Permit to Construct' would be required prior to proceeding with the installation of the additional wells. Also, a clarification as to the disposition of the excavated materials was requested.

3. REQUESTS/REQUIREMENTS/RECOMMENDATIONS:

- a. **2009 Monitoring Report:** Olsson Associates reported that as a result of the drought conditions that have persisted for over a decade GW levels have continued to decline. The decline in GW levels has had an apparent affect on LNAPL migration. The recent monitoring event detected low levels of benzene and ethylbenzene in the down-gradient well, EP-MW-B. While the concentrations did not exceed the MCL's for those constituents they were noteworthy in that they had not been previously detected in this sentinel well. Additionally, an increase in LNAPL thickness was encountered in wells EP-MW-C and RW-2. One additional explanation for the increase in contaminant levels is that there may be two independent sources of the contamination.
- b. As a result of these changes in contaminants levels, Olsson Associates submitted a proposal for additional site characterization. In the proposal Chevron proposes to drill a series of wells in two different areas of the site: (1) in the vicinity of wells EP-MW-B, and, (2) EP-MW-C. It is anticipated that the drilling program will better delineate the both the vertical and lateral extent of the plume. Due to the decrease in GW levels exacerbated by the ongoing drought conditions the well will be advanced considerably deeper than the existing wells. The review of the report and the proposed drilling plan were approved as specified in the packet for application N° 10-270.

End of Report



Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

June 30, 2010

Mark and Nancy Tanner
P.O. Box 511
Rawlins, Wyoming 82301

RE: Tanner Cabin Septic System,
Location: SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 24, T13N, R88W,

Application No. **10-271**
Carbon County

Dear Mr. and Mrs. Tanner:

The above application for coverage under General Permit to Construct, Install, Modify or Operate a Small Wastewater Facility consisting of a 1000 gallon polyethylene septic tank and a rock and perforated pipe trench leachfield 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 11, Part D 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.

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FAX 777-3610

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FAX 777-6462

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

INDUSTRIAL SITING
(307) 777-7369
FAX 777-5973

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



The approval granted under this Notification Of Coverage and the General Permit shall expire on June 30, 2012. Please reference Application Number 10-271 in any future correspondence.

If you have any questions, please contact me at either rewald@wyo.gov or (307) 777-6183.

Sincerely,



Ronald L. Ewald
Project Engineer
Southeast District, Water Quality Division

RLE/rm/10-0557

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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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 21, 2010

City of Torrington
Attn: Robert Juve, City Engineer
436 East 22nd Avenue
Torrington, Wyoming 82240

RE: Hatten Sanitary Sewer Extension,
Location: 42.075° Latitude, 104.178° Longitude,

Application No. **10-272**
Goshen County

Dear Mr. Juve:

The above application for coverage under General Permit to Construct, Install, Modify or Operate Extensions to or Modifications of Existing Sewage Collection Systems consisting of about 330 feet of 8" PVC sanitary sewer main extension 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. 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 July 20, 2012. Please reference Application Number 10-272 in any future correspondence.

If you have any questions, please contact me at either rewald@wyo.gov or (307) 777-6183.

Sincerely,

Ronald L. Ewald
Project Engineer
Southeast District, Water Quality Division

RLE/m/10-0635

Enclosures: GENERAL PERMIT - Extensions/Modifications of Existing Sewage Collection Systems
Certificate of Completion Form

cc: IPS, Cheyenne
Frank A. Strong IV, M.C. Schaff & Associates, P.O. Box 1340, Douglas, WY 82633

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

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FAX 777-6462

AIR QUALITY
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FAX 777-5616

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LAND QUALITY
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FAX 777-5864

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

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



WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
PERMIT TO CONSTRUCT

PERMIT NO. 10-273

TOWN OF GLENROCK WASTEWATER FACILITY IMPROVEMENTS

This permit hereby authorizes the applicant:

Town of Glenrock

to construct, install or modify a upgrade the existing lagoon wastewater treatment facility to an advanced design with an anaerobic pretreatment cell, with a rated capacity of 400,000 gallons per day according to the procedures and conditions of the application number 10-273. The facility is located in NE ¼ SE ¼ Section 3 T33N R75W, Converse County, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed November 21, 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.

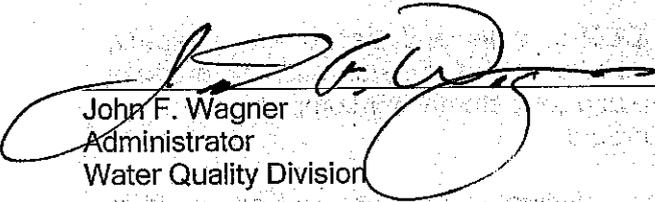
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and

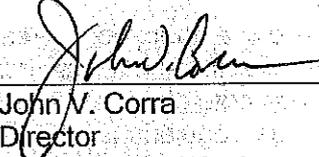
permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

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 307-777-7088, FAX 307-777-5973, 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" is available at the web site <http://deq.state.wy.us/wqd>.
 - 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

11/16/10

LBH/rm/10-1018

STATEMENT OF BASIS

1. Permit Number: **10-273**
 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 required.
- This system is an upgrade of an existing system that included a groundwater review and a successful operating history. The redesign reduces the infiltration by converting one of the three existing cells to synthetically lined cells with leak collection and recovery.
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 Louis Harmon, Water and Wastewater Program Manager, Wyoming Department of Environmental Quality /Water Quality Division, and completed on November 16, 2010. 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."

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY / WATER QUALITY DIVISION
122 West 25th Street, Herschler Building 4 West, Cheyenne, Wyoming 82002

PROJECT:
ENGINEER:
APPLICANT:
WATER QUALITY DIVISION REFERENCE NUMBER: 10-273
REVIEWING ENGINEER: Louis B. Harmon
DATE OF REVIEW: August 27, 2010



ACTION: **NOT AUTHORIZED FOR CONSTRUCTION.** In accordance with Section 14(a), Chapter 3, 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 said 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. Technical Memorandum (TM) Comments:
 - a. I concur with the basic design parameters of .3 mgd of flow at a strength of 250 BOD₅ mg/l and a TSS of 250 ppm at the present increasing to .4 mgd in 20 years.
 - b. The wastewater stabilization pond calculations presented indicate that the proposed system will fail to meet the WYPDES permit standard of 30 BOD₅ mg/l in the winter time. If the sequential ponds are evaluated one pond at a time using an influent temperature of 8°C for pond 2 and 4°C for pond 3, the standard is met. Please present this calculation as part of the technical memorandum.
 - c. The comment is made that alkalinity is critical to proper performance of the anaerobic pond, but not measurements of alkalinity of the sewage are included in the TM. Please measure and report the alkalinity of the Glenrock sewage.
 - d. The proposal is to line Cells 1 – 4 with polypropylene membrane. Experience in other Wyoming locations with polypropylene has been that the polypropylene membranes fail from UV exposure in six years or less. The failed membranes were certified as UV resistant and were rated as having a 20 year life. Numerous HDPE membrane installations have been in service 15 years or more with no significant deterioration. Although Chapter 11 allows the use of 30 mil HDPE, my personal observation is that 60 mil HDPE is a superior solution well worth the additional cost.

- e. The TM does not discuss the potential for methane accumulation under the membrane liners being installed in an old wastewater lagoon. Based on experiences from across the nation, the membranes should be installed on top of a geogrid over a geotextile or a clean gravel subgrade. The membrane liners need to have gas vents installed every 15 to 20 feet along the upper edge of the freeboard area.
- f. The TM does not include a geotechnical report. Of particular concern is the possibility that dewatering may be necessary to allow the construction of the anaerobic pretreatment cells. The dewatering might have to continue until Cell 1 can be filled with water or put into service.
- g. The process flow should include the ability to flow from Cell 4 to the outfall, bypassing cells 5 and 6. The plans actually show this ability.
- h. Please evaluate designing the bypass piping and the level control structures to allow individually drawing cells 2 and 3 down to elevation 4959.5. This would facilitate maintenance of the aeration system. I have seen numerous aeration systems abandoned because of the high level of difficulty to access the plugged or blown out aeration nozzles. There is sufficient grade through cell 6 to allow this to be done by gravity.
- i. Please consider construction of a second covered polishing pond at the outfall with enough retention time to drop out most of the algae. This is not a mandate to build a second polishing pond, just to evaluate the benefits of same.

2. Plans

- a. Since it already exists in your digital model, please include a plan sheet with a view similar to sheet 7 with all the plan view information included in sheets 8-13.
- b. Will the existing influent parshall flume work properly with a backwater drop of 0.2 to 0.3 feet?
- c. Why would you design diversion box 1 to be normally flooded?
- d. The proposed distribution system to the pretreatment cells will result in very uneven distribution of the influent. Please propose a distribution system that will result in relatively uniform distribution.
- e. With the exception of detail 3/18, all the piping penetrations and details of the lined cells are unworkable. Please redesign all to construction similar to the sludge drawoff pipe shown in 3/18.

3. Specifications: No comment.

LBH/rm/10-0751



Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 8, 2010

Nancy Nehl
PO Box 2204
Gillette, WY 82717

RE: Overhead Door Commercial Septic Tank Replacement, Campbell County
Location: SW/NE¼, Section 9, Township 50N, Range 72W; Permit # 10-274

Dear Mrs. Nehl:

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

Additionally, the following permit condition applies:

1. 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.

This Notification of Coverage is issued in response to the submission of the information for an emergency septic tank replacement. The leachfield is reported to be operational. If the leachfield fails in the future, a separate "Permit to Construct" will need to be obtained.

Please contact the Campbell County Building and Zoning Department at 307.682.1970 for compliance with any further county regulations. **Septic systems shall not be installed during adverse weather. This includes rain, snow, severely cold temperatures, or excessively moist soils.** If you have any questions, please contact me at (307) 777.6941.

Sincerely,

Suzanne Engels
WDEQ/WQD

SE/rm/10-0585

cc: IPS, Cheyenne
WYDEQ Casper File
John Boniface, Campbell County, 500 S Gillette Ave, Ste 1400, Gillette, WY 82716
Steve Bruce, PO Box 2284, Gillette, WY 82718

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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 14, 2010

Marshall Davis
480 N Pine Ridge Road
Moorcroft, WY 82721

RE: PAM H1 Small Residential Wastewater System, Crook County
Location: NE ¼ SE ¼, Section 11, T50N, Range 66W;

Permit # 10-275

Dear Mr. Davis:

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

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/10-0607

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

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Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 14, 2010

Marshall Davis
480 N Pine Ridge Road
Moorcroft, WY 82721

RE: PAM H2 Small Residential Wastewater System, Crook County
Location: NE ¼ SE ¼, Section 11, T50N, Range 66W;

Permit # 10-276

Dear Mr. Davis:

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

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/10-0608

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

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FAX 777-5973

WATER QUALITY
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FAX 777-5973





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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 14, 2010

Marshall Davis
480 N Pine Ridge Road
Moorcroft, WY 82721

RE: PAM H3 Small Residential Wastewater System, Crook County
Location: NE ¼ SE ¼, Section 11, T50N, Range 66W;

Permit # 10-277

Dear Mr. Davis:

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

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/10-0609

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

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

ADMIN/OUTREACH
(307) 777-7937
FAX 777-3610

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

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

INDUSTRIAL SITING
(307) 777-7369
FAX 777-5973

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





Department of Environmental Quality



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

Dave Freudenthal, Governor

John Corra, Director

August 25, 2010

Lance Creek Water and Sewer District
Justin Kremers, Mayor
P.O. Box 133
Lance Creek, WY 8222

RE: **Application Returned Number: 10-278**
Action: Application Returned- incomplete permit application

Facility: Lance Creek Emergency Chlorination Project
Location: Niobrara County

Dear Mr. Kremers:

Your application with all submitted documents, number **10-278**, for a Lance Creek Emergency Chlorination Project, is being returned and the file closed. **Action: Not Authorized For Construction**.

These review comments indicated that this application could not be permitted as proposed because the application package had numerous deficiencies and was incomplete. It states in **Chapter 3, Section 9(a)(ii)(A)** of Water Quality Rules and Regulations the following: Additional information shall be requested in detail or the application may be returned to the applicant. At this time, the application is being returned. Incomplete permit applications result in permit denial.

In addition, this application does not meet **Chapter 3 Section 9 (a) (iii)**. All Plans and specifications must meet or exceed minimum design standards and these regulations. Applications for modification of existing facilities permitted by the division to increase capability to treat, hold, or dispose of wastes may be approved requiring only the modification to meet minimum design standards if the existing facility is not in violation of applicable regulations. Facilities not in compliance will require modification to other portions of the facility into compliance with applicable regulations. Other modifications will be allowed if minimum standards for the modification are met.

Chapter 12, Section 7(g) Technical specifications shall require that all water service connections will be provided with backflow prevention devices in accordance with the requirements of Section 14 (i) of these regulations.

Chapter 12, Section 14 (i) Cross-connections. There shall be no water service connection installed or maintained between a public water supply and any water user whereby unsafe water or contamination may backflow into the public water supply. It is our opinion that there are thirteen service connections that would be considered a Non-domestic.

The design does not meet the requirements in **Chapter 12 Section 8(n)**. Liquid storage containers shall be isolated from other portions of the structure by a curb that will contain ruptured tank contents.

The **vaults** do not meet **forced ventilation requirements** in **Chapter 12 Section 8(k)**? Rooms housing chlorine storage and/or feeders shall have provisions for exhausting the room contents in 2 minutes and continuous ventilation to provide not less than 12 air changes per hour.

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The pit does not meet the requirements in Chamber drainage in **Chapter 12 Section 12(ii)**. Is there a backup power source?

The vaults does not meet requirements specified in **Chapter 12 Section 12(c)(i)**, **Chapter 12 Section 12(c)(ii)**, and **Chapter 12 Section 12(c)(iii)**. The facility needs to be built above the ground.

Lastly, this application does not meet **Chapter 12, Section 6** of Water Quality Rules and Regulations. **The design report is incomplete.** More specifically, the design report fails to address operational and maintenance issues in the water tank. When was the last time the tank was inspected and cleaned? How often is the tank re-circulated? What level is the water maintained in the water tank? Excess water storage is not addressed. Are there cross connections? The design report fails to discuss the chlorination at the wells.

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.

At some time in the near future, I would entertain a meeting with the Lance Creek Water and Sewer District and the Engineer to discuss an outline of items needed to cover a complete Application. If you should have any questions, please contact Richard Cripe at either (307) 777-7075 or rcripe@wyo.gov.

Sincerely,



Richard R. Cripe PE
Southeast District Engineer
Water Quality Division

RRC/rm/10-0731

Enclosures: Application Packages 10-278

cc: IPS

Murray Schroeder, WWC Engineering, 611 Skyline Rd., Laramie, WY 82070
John Gillis, EPA Region 8 Drinking Water Program, 1595 Wynkoop St., Denver, CO 80202-1129
Kathelene Brainich, EPA Drinking Water Enforcement, 1595 Wynkoop Street, Denver, CO 80202-1129
Robert Tompkins, Grants and Loans Program Manager Office of State Lands and Investments, 122 W. 25th Street, 3 West, Cheyenne, WY 82002

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
PERMIT TO CONSTRUCT

PERMIT NO. 10-279

Signal Mountain #2 Well Installion
PWS #5680108

This permit hereby authorizes the applicant:

Thayne O'Brien
National Park Service, Grand Teton National Park
P.O. Box 170
Moose, WY 83012

to drill, construct, develop and test Signal Mountain #2 Well; according to the procedures and conditions of the application number 10-279. The facility is east and up gradient from the Signal Mountain Development & Campground. It is approximately 75 Feet South of the existing Signal Mountain #1 Well. The new well is within NW ¼, NE ¼, Section 25, T45N, R114W in the county of Teton, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed by August 1, 2012.

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, or any infringement of federal, state or local laws or regulations.

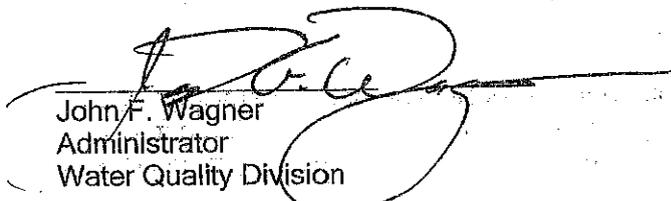
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not

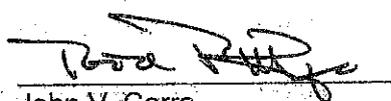
relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

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 4 The applicant will provide immediate oral or written notice to the Wyoming Department of Environmental Quality, Water Quality Division (WQD), Northwest District Engineer, 510 Meadowview Drive, Lander, WY 82520, 307-332-3144, FAX 307-332-3183, 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 A Chapter 3 Permit to Construction Application along with plans and technical specifications for the equipping of the well and other construction such as installation of discharge piping, construction of a well house, disinfection, etc. must be submitted to the Wyoming Department of Environmental Quality. A Permit to Construct must be obtained prior to construction of the aforementioned items.
- 3 of 4 Within sixty days of completion of construction of the authorized facility, the applicant will submit to the Northwest District 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.
- 4 of 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

7-15-10
Date of Issuance

HES/rm/10-0610

STATEMENT OF BASIS

1. Permit Number: 10-279
2. Application reviewed for compliance with the following regulations:
Chapters 3 and 12 of the Wyoming Water Quality Rules and Regulations.
3. Does the permit comply with all applicable regulations identified above?
Yes. However, subsequent plans and specifications must be submitted for the equipping of the well and other construction such as installation of discharge piping, construction of a well house, disinfection, etc.
4. Facilities include components not specifically covered by regulations and approval is based upon a deviation from applicable regulations in accordance with Section 5 of applicable regulations.
No.
5. If Section 17 of Chapter 3 review is required indicate the basis for determining groundwater will be protected.
Public water supply wells are exempted from review by Chapter 3, Section 17
6. Documentation of Statement of Basis: The archive file for this permit includes adequate documentation of all sections of this Statement of Basis.

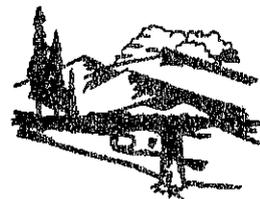
CERTIFICATION

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 Hannes E. Stueckler, hstuec@wyo.gov, Assistant Northwest District Engineer and completed on July 12, 2010. 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."

cc: Jeffery S. Allen, P.E., Grand Teton National Park, P.O. Drawer 170, Moose, WY 83012



Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 14, 2010

Roger Willey
PO Box 11
Hulett, WY 82720

RE: Willey Small Residential Wastewater System, Crook County
Location: SE ¼, Section 30, T54N, Range 64W; Permit # 10-280

Dear Mr. Willey:

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

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/10-0614

cc: IPS, Cheyenne
WYDEQ Casper File
Tim Lyons, Crook County Growth and Development, PO Box 848, Sundance, WY 82729
Russell Stinson, Stinson Backhoe, LLC, PO Box 23, Hulett, WY 82720

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Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 13, 2010

Doug and Barbara Gustafson
155 Swett Rd
Woodside, CA 94062

RE: Gustafson Small Residential Wastewater System, Crook County
Location: E ¼ SE ¼, Section 20, T50N, Range 62W;

Permit # 10-281

Dear Mr. and Mrs. Gustafson:

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

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

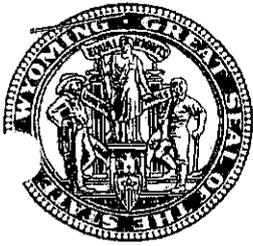
SE/rm/10-0592

cc: IPS, Cheyenne
WYDEQ Casper File
Tim Lyons, Crook County Growth and Development, PO Box 848, Sundance, WY 82729
Delbert Shoun, PO Box 854, Sundance, WY 82729

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Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 12, 2010

Kreg Lombard, Mayor
City of Worland
P.O. Box 226
Worland, WY 82401

RE: 2009/10 Water Replacement in Worland. DEQ Permit #10-282, Washakie County, Lat. 44.018978, Long. 107.960939

Dear Mayor Lombard,

This project consists of the replacement of existing 4-inch CIP and 8-inch CIP water mains located in North 8th st. with 8-inch C900 DR18 PVC pipe.

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

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

Sincerely,

Hannes E. Stueckler
Assistant Northwest District Engineer
Water Quality Division

James Brough, P.E.
Northwest District Engineer
Water Quality Division

xc: PDF to Cheyenne
Mike W. Donnell P.E., Donnell and Allred, Inc., P.O. Box 638, Worland, WY 82401

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

ABANDONED MINES
(307) 332-5085

AIR QUALITY
(307) 332-6755

LAND QUALITY
(307) 332-3047

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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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

August 31, 2010

Town of Chugwater
Attn: Steven Kelley, Director Public Works
248 2nd Street
P.O. Box 243
Chugwater, Wyoming 82210

RE: BRC Waterlines 2010,
Location: Section 31, T21N, R66W,

Application No. **10-284**
Platte County

Dear Mr. Kelley:

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 consisting of replacing approximately 2,860 feet of existing 6" C.I.P. pipe with new 6" PVC waterline pipe while also completing two waterline loops 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, 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:

Additions to Wyoming Public Works Standard Specifications for Waterline Construction:

- a. Section 2665 E.6 - Water tight plugs shall be maintained in all pipe openings in a trench any time pipe laying is not in progress or the trench is unattended.
- b. Section 2675 D - Flushing shall achieve minimum velocities of at least 5 feet per second for pipelines 12 inches in diameter or less. Flushing shall be through flush valves and a discharge pipe to the surface. Fire hydrants shall not be flushed until after the water main or distribution line is flushed.

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FAX 777-3610

ABANDONED MINES
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FAX 777-6462

AIR QUALITY
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FAX 777-5616

INDUSTRIAL SITING
(307) 777-7369
FAX 777-5973

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



The approval granted under this Notification Of Coverage and the General Permit shall expire on August 31, 2012. Please reference Application Number 10-284 in any future correspondence.

If you have any questions, please contact me at rewald@wyo.gov or (307) 777-6183.

Sincerely,



Ronald L. Ewald
Project Engineer
Southeast District, Water Quality Division

RLE/rm/10-0765

Enclosures: GENERAL PERMIT - Extensions/Modifications of Existing Public Water
Supply Distribution Systems
Certificate of Completion Form

cc: IPS, Cheyenne
Tim Eisenhauer, Baker & Associates, 1401 East M, Torrington, WY 82240



Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

August 20, 2010

Town of Burns
Attn: Leon Pierce, Utility Board President
102 East 1st Street
Burns, Wyoming 82053

RE: Co-Op Waterline Looping,
Location: Section 7, T14N, R62W,

Application No. **10-285**
Laramie County

Dear Mr. Pierce:

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 consisting of approximately 2000 feet of C900 PVC pipe and three(3) new fire hydrants 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, 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. Additions to Wyoming Public Works Standard Specifications for Waterline Construction:

- a. Section 2665 E.6 - Water tight plugs shall be maintained in all pipe openings in a trench any time pipe laying is not in progress or the trench is unattended.
- b. Section 2675 D - Flushing shall achieve minimum velocities of at least 5 feet per second for pipelines 12 inches in diameter or less. Flushing shall be through flush valves and a discharge pipe to the surface. Fire hydrants shall not flushed until after the water main or distribution line is flushed.

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

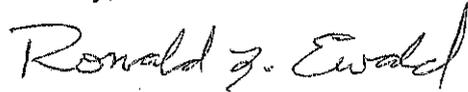
WATER QUALITY
(307) 777-7781
FAX 777-5973



The approval granted under this Notification Of Coverage and the General Permit shall expire on August 20, 2012. Please reference Application Number 10-285 in any future correspondence.

If you have any questions, please contact me at rewald@wyo.gov or (307) 777-6183.

Sincerely,



Ronald L. Ewald
Project Engineer
Southeast District, Water Quality Division

RLE/rm/10-0720

Enclosures: GENERAL PERMIT - Extensions/Modifications of Existing Public Water
Supply Distribution Systems
Certificate of Completion Form

cc: IPS, Cheyenne
David W. Trushaw, Western Research and Development, 5908 Yellowstone Ave.,
Suite B, Cheyenne, Wyoming 82009

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

PERMIT NO. 10-286

CAMECO RESOURCES
SMITH RANCH WATER SYSTEM
PWS WY5601500

This permit hereby authorizes the applicant:

CAMECO RESOURCES
P.O Box 2120
Glenrock, WY 82637

to construct, install or modify the existing chlorine disinfection system and to have an as-built approval for the existing public water supply system according to the procedures and conditions of the application number 10-286. The facility is located in NW ¼ NE ¼ Section 36, T36N R74W; Converse County, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed August 23, 2012.

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.

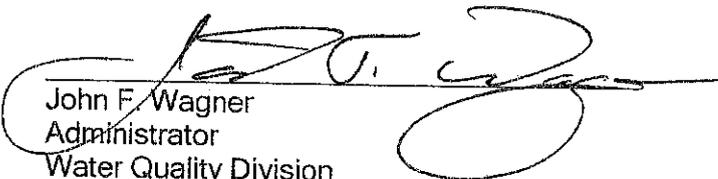
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization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

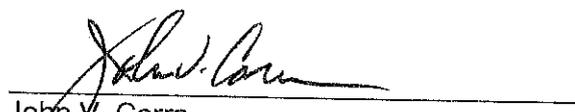
In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions:

- 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 The existing chlorine disinfection system must be operated continuously and be modified to maintain a proper chlorine level to satisfy the requirements of the EPA Administrative Order dated March 10, 2010.
- 3 An operation and maintenance manual for the water system must be submitted to the Southeast District Engineer of the Water Quality Division for approval. The operation and maintenance manual for the water system should meet the requirements of Section 16, Chapter 12, Wyoming Water Quality Rules and Regulations
- 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.

5 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

8/27/10

RRC/rm/10-0724

STATEMENT OF BASIS

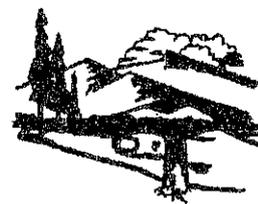
1. Permit Number: **10-286**
2. This application was reviewed for compliance with the applicable regulations ;
Chapters 3, 12
3. Does the permit comply with all applicable regulations identified above?
Yes
4. A review to determine groundwater impacts in accordance with Section 17, Chapter 3 was not required.
5. The as-built portion of this permit recognizes the well and existing water distribution system which was built without a permit. This is a modification to an existing water system that was constructed prior to 1990. The well was completed in 1969. It was owned by Kerr-McGee. In 1989, the water rights were transferred to Rio Algom Mining. In 2002, the water rights were transferred to Power Resources. Currently, the EPA has identified this system as a PWS and has issued an administrative order to modify the chlorine system.
6. 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 R. Cripe, Southeast District Engineer, Water and Wastewater Section, Wyoming Department of Environmental Quality /Water Quality Division, and completed on August 24, 2010. 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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Dave Freudenthal, Governor

John Corra, Director

August 24, 2010

Cameco Resources
Attention: Tom Cannon, General Manager
P.O. Box 2120
Glenrock, WY 82637

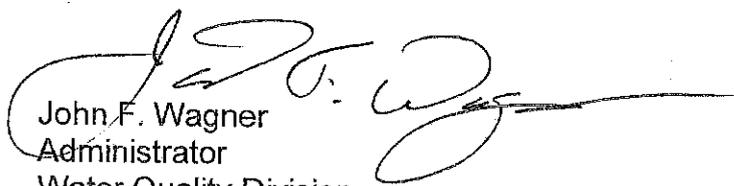
RE: Modifications, As- Built Permit To construct, WQD Reference Number **10-286**

Dear Mr. Cannon:

The Department of Environmental Quality/Water Quality Division(DEQ/WQD) has reviewed the above referenced As- Built Application submitted by your Engineer, Thomas E. Axthelm, P.E. Our review of the information and as-constructed plans submitted to this office indicates that the application meets DEQ/WQD regulations and the enclosed As-Built permit to construct is hereby issued. The enclosed permit covers the constructed water well and public water system, as well as the modification to the existing chorine disinfection system.

Prior to 1990, Wyoming Law did not consider this a PWS. Because this public water system and well was constructed prior to 1990, an NOV will not be issued for this for this facility.

Sincerely,


John F. Wagner
Administrator
Water Quality Division

JFW/RRC/rm/10-0724

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

ADMIN/OUTREACH
(307) 777-7937
FAX 777-3610

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

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

INDUSTRIAL SITING
(307) 777-7369
FAX 777-5973

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



WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
PERMIT TO CONSTRUCT

PERMIT NO. 10-287

Town of Alpine - 2010 Water Supply Improvements
Public Water System Number WY5600156

This permit hereby authorizes the applicant:

Deb Wolfley
Town of Alpine
P.O. Box 3070
Alpine, WY 83128

to construct a public water supply upgrade consisting of the completion of well No. 3, 743 lf of 8-inch PVC and about 30 lf DIP well field piping, a new control building, standby power and 395 lf of 10-inch PVC transmission line to Greys River Road according to the procedures and conditions of the application number 10-287. The facility is located at NW ½ NW ¼ Section 33, T37N, R118W which is in the southeast part of the Town of Alpine in the county of Lincoln, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed by July 20, 2012.

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.

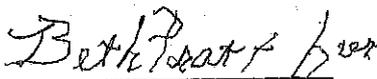
The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

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 Wyoming Department of Environmental Quality, Water Quality Division (WQD), Southwest District Engineer, 510 Meadow View Drive, Lander, WY 82520, 307-332-3144, FAX 307-332-3183, 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 Northwest District 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 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

7-21-10
Date of Issuance



John V. Corra
Director
Department of Environmental Quality

MDB/rm/10-0634

STATEMENT OF BASIS

1. Permit Number: 10-287
2. Application reviewed for compliance with the following regulations:
Chapters 3 and 12 of the Wyoming Water Quality Rules and Regulations.
3. Does the permit comply with all applicable regulations identified above?
Yes.
4. If a Section 17 of Chapter 3 review is required indicate the basis for determining groundwater will be protected.
Not Required.
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 Mark D. Baron, P.E., mbaron@wyo.gov, Southwest District Engineer and completed on July 20, 2010. 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."

cc: Robert T. Ablondi, P.E., Rendezvous Engineering, P.C., P.O. Box 4858, Jackson, WY 83001



Department of Environmental Quality



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

Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 13, 2010

Robert Smith
705 Rifle Pit Road
Beulah, WY 82712

RE: R. Smith Small Residential Wastewater System, Crook County
Location: NW ¼, Section 23, T52N, Range 61W;

Permit # 10-288

Dear Mr. Smith:

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

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/10-0590

cc: IPS, Cheyenne
WYDEQ Casper File
Tim Lyons, Crook County Growth and Development, PO Box 848, Sundance, WY 82729
Floyd Canfield, PO Box 952, Sundance, WY 82729

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

ADMIN/OUTREACH
(307) 777-7937
FAX 777-3610

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

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

INDUSTRIAL SITING
(307) 777-7369
FAX 777-5973

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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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 26, 2010

James and Deb McLeland
915 Fairway Dr.
Gillette, WY 82718

RE: McLeland Small Residential Wastewater System, Crook County
Location: SENE ¼, Section 17, T49N, Range 65W;

Permit # 10-289

Dear Mr. and Mrs. McLeland:

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

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/10-0656

cc: IPS, Cheyenne
WYDEQ Casper File
Tim Lyons, Crook County Growth and Development, PO Box 848, Sundance, WY 82729
Sam Haptonstall, PO Box 51, Upton, WY 82730

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ADMIN/OUTREACH (307) 777-7937 FAX 777-3610	ABANDONED MINES (307) 777-6145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7369 FAX 777-5973	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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**REVIEW OF PLANS & SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION**

PROJECT: James and Deb McLeland Small Residential Septic System

ENGINEER/ CONSULTANT: None

APPLICANT: James and Deb McLeland, 915, Fairway Drive, Gillette, WY 82718

INSTALLER: Sam Haptonstall, PO Box 51, Upton, WY 82730

WATER QUALITY DIVISION APPLICATION NUMBER: 10-289

REVIEWING ENGINEER: Suzanne Engels 307.777.6941 or spagor@wyo.gov 

DATE OF REVIEW: July 23, 2010

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. In accordance with Section 12(a), Chapter 3, Wyoming Water Quality Rules and Regulations (WWQRR), this application is **not granted**. 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 of Chapter 3 of the WWQRR. If the applicant fails to provide the requested information within one month, the incomplete application shall be returned.

1. Please provide the following on the percolation test results:
 - a. Who were the tests performed by?
 - b. What was the test date?
 - c. What was the depth of each percolation test hole?
2. The trench length on page 5, indicates that a 160 foot single trench is proposed. However, DEQ recommends that a trench is no longer than 100 feet in length. Please revise the length and number of trenches proposed.
3. Please submit the appropriate completed leachfield detail sheet.

The appropriate forms are included for your convenience. Please make the required corrections and return to Wyoming Department of Environmental Quality, Water Quality Division, 152 North Durbin Street, Suite 100, Casper, Wyoming 82601

SE/rm/10-0648

**REVIEW OF PLANS & SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION**

PROJECT: James and Deb McLeland Small Residential Septic System

ENGINEER/ CONSULTANT: None

APPLICANT: James and Deb McLeland, 915, Fairway Drive, Gillette, WY 82718

INSTALLER: Sam Haptonstall, PO Box 51, Upton, WY 82730

WATER QUALITY DIVISION APPLICATION NUMBER: 10-289

REVIEWING ENGINEER: Suzanne Engels 307.777.6941 or spagor@wyo.gov 

DATE OF REVIEW: July 13, 2010

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. In accordance with Section 12(a), Chapter 3, Wyoming Water Quality Rules and Regulations (WWQRR), this application is **not granted**. 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 of Chapter 3 of the WWQRR. If the applicant fails to provide the requested information within one month, the incomplete application shall be returned.

1. Please provide the soil description.
2. Please address questions 6 and 7 on Page 2 regarding the seasonally high groundwater level and the depth to bedrock or an impermeable soil layer.
3. Please submit a detailed site plan. An example is included as a reference.
4. Please provide the manufacturer of the septic tank and the standard septic tank detail sheet.
5. Please provide the following on the percolation test results:
 - a. Who were the tests performed by?
 - b. What was the test date?
 - c. What was the depth of each percolation test hole?
6. The trench length on page 5, indicates that a 160 foot single trench is proposed. However, DEQ recommends that a trench is no longer than 100 feet in length. Please revise the length and number of trenches proposed.
7. Please submit the appropriate leachfield detail sheet (one is included for your use).

The appropriate forms are included for your convenience. Please make the required corrections and return to Wyoming Department of Environmental Quality, Water Quality Division, 152 North Durbin Street, Suite 100, Casper, Wyoming 82601

SE/rm/10-0591



Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 13, 2010

Ron Slack
6651 White Rock Drive
Casper, WY 82604

RE: Slack Small Residential Wastewater System, Natrona County
Location: SE ¼, NW ¼, Section 18, T32N, Range 79W;

Permit # 10-290

Dear Mr. Slack:

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. The proposed design meets the minimum requirements for a small wastewater system found in Chapter 11, Part D, Section 41 (c). Nothing in this permit constitutes an endorsement of the construction or the design of the small wastewater system. DEQ assumes no liability for, and does not in any way guarantee the performance of this system.

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

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.

Further, DEQ recommends that the system is carefully observed during the first year of use to ensure it is operating appropriately. Please contact the Casper-Natrona County Health Department at (307) 235-9340 for compliance with any further county regulations. **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/10-0600

cc: IPS, Cheyenne

WYDEQ Casper File

April Gindulis, Casper-Natrona County Health Department, 475 S Spruce, Casper, WY 82601-1759

Lewis James, 5830 E 2nd St., Casper, WY 82609

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

ADMIN/OUTREACH
(307) 777-7937
FAX 777-3610

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

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

INDUSTRIAL SITING
(307) 777-7369
FAX 777-5973

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





Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 14, 2010

Mickey Simmons, Director of Public ~~WORKS~~
City of Lander
240 Lincoln Street
Lander, WY 82520



RE: Lander Emergency Water Transmission Main Replacement, DEQ Permit #10-291, Fremont County, E 1/2 of S24 & W 1/2 of, Section 19, T 33N, R 99W, 6th P.M.

Dear Mr. Simmons:

This project consists of the replacement of 1,400 linear feet of 10-inch water transmission main with 16-inch fused HDPE pipe. The project also includes three 16-inch butterfly valves and one 10-inch gate valve and a fire hydrant near Sinks Canyon Road. The existing transmission main failed during the June 2010 flood. 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.

A variance was requested from Chapter 12, Section 14(b)(h)(ii)(B) to omit manholes and sampling ports from the river crossing design since the water transmission line will be constructed of butt fused HDPE pipe. DEQ concurs that sampling is not necessary at this location since the water line will be jointless and have at least four feet of cover. A DEQ variance is hereby granted as constituted by this letter.

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

If you have any questions, please contact me at 307-335-6961.

Sincerely,

James Brough
James Brough, P.E.
Northwest District Engineer
Water Quality Division

xc: PDF to Cheyenne
Diane Oress, P.E., Dowl HKM., P.O. Box 1655, Lander, WY 82520

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



WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
PERMIT TO CONSTRUCT

PERMIT NO. 10-292

Rehabilitation of Bridge Bay Lift Station

This permit hereby authorizes the applicant:

Nancy A. Ward, Assistant Chief of Maintenance
Yellowstone National Park
P.O. Box 168
Mammoth, WY 82190

to replace two existing dry well pumps with two submersible pumps and to modify existing dry wells to wet wells according to the procedures and conditions of the application number 10-292. The facility is located at North 44 deg 32' 01.05" and West 110 deg 26' 20.91" in the county of Teton, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed by July 31, 2012.

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, or any infringement of federal, state or local laws or regulations.

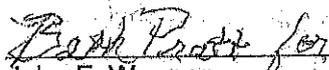
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit.

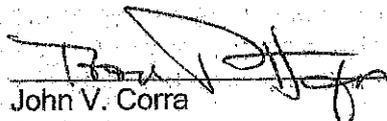
This permit does not relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

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 Wyoming Department of Environmental Quality, Water Quality Division (WQD), Northwest District Engineer, 510 Meadowview Drive, Lander, WY 82520, 307-332-3144, FAX 307-332-3183, 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 Southwest District 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 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

7-22-10
Date of Issuance

JSB/rm/10-0643

STATEMENT OF BASIS

1. Permit Number: 10-292
2. Application reviewed for compliance with the following 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 by regulations and approval is based upon a deviation from applicable regulations in accordance with Section 5 of applicable regulations.
No.
5. If Section 17 of Chapter 3 review is required indicate the basis for determining groundwater will be protected.
Existing sewage collection systems are exempted from review by Chapter 3, Section 17
6. 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 James S. Brough, jbroug@state.wy.us, Northwest District Engineer and completed on July 21, 2010. 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."

cc: Sherri Jones, P.E., Tetra Tech, Inc., 1576 Sherman St #100, Denver, CO 80203

ROAD APPLICATION PERMIT

X New
! Renewal
Modified

PERMIT NO. 10-293
SPECIAL CONDITIONS
REF/PERMIT

Kissack Water and Oil Service "BT553 Fluid" Road Application

This permit hereby authorizes the applicant:

Kissack Water and Oil Service, Inc.
P.O. Box 9
Rozet, WY 82727

to road apply approximately 700 barrels of off-spec "BT 553 Fluid" (a dust suppressant) for dust control according to the procedures and conditions of application number 10-293. The application site is located in Sections 4, 9, 17, and 18, Township 50 North, Range 69 West in the county of Campbell, in the State of Wyoming. The application site is located approximately three miles north of Rozet, Wyoming. This permit shall be effective until November 1, 2010.

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 standards. Compliance with DEQ standards is the responsibility of the permittee, owner, and/or operator.

Nothing in this permit constitutes an endorsement by the DEQ of the disposal method described herein. This permit verifies only that the submitted application meets the 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 of, the permitted activity. The permittee, owner and/or operator are solely responsible for any liability arising from the waste disposal permitted. 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.

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 of 8 The permittee shall notify representatives from the DEQ/WQD of the anticipated project commencement and completion dates with the attached post card. At least 48 hours advance notice is required. The authorized representative in your area can be contacted at the following address: DEQ/WQD, Casper WDEQ Field Office, 3030 Energy Lane, Casper, WY 82604, telephone (307) 473-3452; FAX (307) 473-3458.

- 2 of 8 The permittee shall provide immediate oral and/or written notice to the Casper WDEQ Field Office in accordance with the provisions of Section 9, Chapter III, Wyoming Water Quality Rules and Regulations of any changes or modifications to the approved permit package.

- 3 of 8 The permittee shall provide certification that the project was completed in accordance with the terms and conditions of the permit within sixty (60) days of the project completion to the Casper WDEQ Field Office on the attached Certification of Completion form.

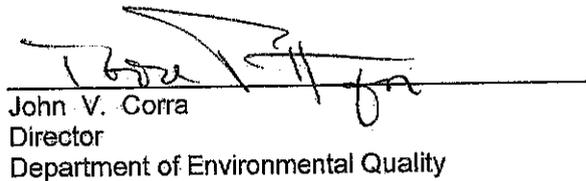
- a. Date that the road application was completed; and
- b. Certification the road application was done in accordance with the terms and conditions of the permit; or
- c. Certification the road application was completed with changes or modifications. Submit the information necessary to clearly indicate the road application as actually performed. This information shall include a contour map depicting only those sections of road that actually received off-spec "BT 553 fluid" mixture.

- 4 of 8 The review and approval of this permit is based upon the items identified in the attached Statement of Basis.
- 5 of 8 The off-spec "BT 553 fluid" mixture shall be applied uniformly onto the road bed as a dust control agent. The off-spec "BT 553 fluid" mixture shall not be applied during the period from November 1 to April 10.
- 6 of 8 The application site slope shall not exceed eight percent (8%) for vehicular application.
- 7 of 8 Application of off-spec "BT 553 fluid" mixture shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
- 8 of 8 Only the roads designated in this permit are authorized for application of the off-spec "BT 553 fluid" mixture. Additional or alternate sections of road meeting the requirements of the application and this permit may be utilized if a written description and maps are received and approved by the WQD.

AUTHORIZED BY:



John F. Wagner
Administrator
Water Quality Division



John V. Corra
Director
Department of Environmental Quality

7-16-10
Date of Issuance

KJM/rm/10-0620

STATEMENT OF BASIS

I. General information.

A. Permit Number: 10-293

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

A. Chapter XI. No

B. Chapter XII. No

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.

No

B. Permit includes deviation from applicable regulations in accordance with Section 5, Chapter XI, or XII.

No

C. 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.)

A. Identify specific sections of the regulations for which a deviation is approved and briefly summarize the regulation.

There are no numeric standards or criteria in Chapter XI for road application. W.S. 35-11-301 (a)(iii) requires a permit to be issued when any disposal system capable of causing or contributing to pollution is constructed, installed, modified, or operated.

B. Briefly state the basis for the deviation.

Road application is permitted when DEQ authorized disposal facilities are not readily available, a beneficial use of the waste to be applied is possible, and significant impact to waters of the State is minimized.

C. Permit based on general or statewide deviation contained in approved policy statement (indicate the policy number and briefly summarize the nature of the deviation).

District Policy numbers 10.1 (4/9/91), 10.2 (10/17/86), 10.3 (8/91), 10.4 (10/24/91), and 10.6 (1/18/91) address the statutory authority to regulate the road application of waste, establish criteria for characterizing the waste, and determine acceptable conditions for the application of the waste to roadbeds to minimize impact to waters of the State.

District Policy 10.2 (10/17/86)

V. Application requires review to determine groundwater impacts in accordance with Section 15, Chapter III¹. (Indicate either applicable or not applicable. If not applicable delete all of section VI. from the Statement of Basis.)

NA

¹Sediment ponds, public water supplies, sewerage systems and small wastewater systems are exempt from the requirements of Section 15.

VI. If Section 15 of Chapter III is applicable, indicate the basis of determining groundwater will be protected. (Fill out only the applicable sections and indicate sections that are not applicable.)

A. Facility will not allow a discharge to groundwater. Briefly describe:

BT 553 is a dust suppressant used at mines. The proposed application rate will not cause surface run-off.

B. Quality of waste is such that it will not cause a violation of groundwater standards. Briefly describe:

NA

C. Existing soils or geology will not allow a discharge to groundwater. Briefly describe:

NA

D. 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:

NA

E. 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:

NA

F. If water quality exceedances are allowed, briefly describe the parameter limits, property boundaries, places of withdrawal and any other information documenting that any users of affected aquifer will not be impacted.

NA

G. 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.

NA

VII. Documentation of Statement of Basis.

A. 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 III, Wyoming Water Quality Rules and Regulations. This review was performed by Kim Medina, Project Geologist, and completed on July 16, 2010. 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
AS-BUILT
PERMIT TO CONSTRUCT

PERMIT NO. 10-294R

NOV Docket No. 4520-09

Ridge Creek Investments-Cabin & Pool House Water & Sewer Mains

This permit hereby authorizes the applicant:

Ridge Creek Investments Company
Flying Saddle Lodge
Abi Garaman
P.O. Box 608
Jackson, WY 83001

to have constructed extensions of a public water system and sewage collection system to serve six cabins and a pool building; additional construction consisting of the installation of a sewage collection manhole and the installation of flushing hydrant is to be performed according to the procedures and conditions of the application number 10-294R. The facility is located north of the Snake River at the Town Alpine at the intersection of highways 26 and 89 at SE ¼ SE ¼ Section 20, T37N, R118W in the county of Lincoln, in the State of Wyoming. The construction, installation, or modification allowed by this permit must be completed by the date of November 1, 2011.

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.

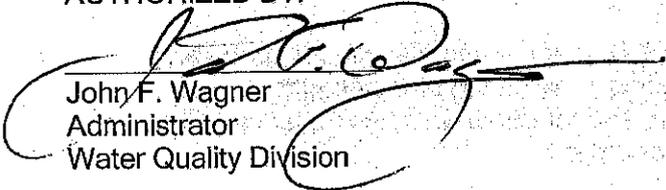
The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

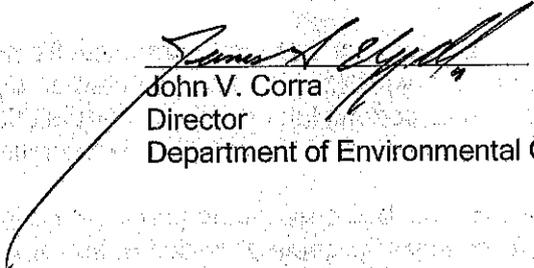
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not relieve the permittee from any duty to obtain any other permit or authorization 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 2 The applicant will provide immediate oral or written notice to the Wyoming Department of Environmental Quality, Water Quality Division (WQD), Southwest District Engineer, 510 Meadow View Drive, Lander, WY 82520, 307-332-3144, FAX 307-332-3183, 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 Under item 7 of 19 of Settlement Agreement for NOV Docket Number 4520-09 the installation of sewage collection manhole A, shown on sheet G2, and the installation of the 4-inch blowoff, shown on sheet C1 must be completed per the approved plans and specifications within 365 days of this permit being signed.
- 3 of 4 Within sixty days of completion of construction of the authorized facility, the applicant will submit to the Southwest District 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.
- 4 of 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

10-26-10
Date of Issuance

MDB/rm/10-0952

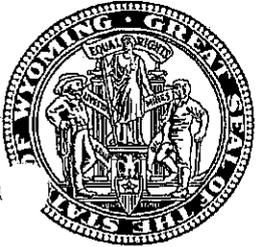
STATEMENT OF BASIS

1. Permit Number: 10-294R
2. Application reviewed for compliance with the following regulations:
Chapters 3, 11 and 12 of the Wyoming Water Quality Rules and Regulations.
3. Does the permit comply with all applicable regulations identified above?
No. The Chapter 11, Section 9 (f)(ii) horizontal and vertical separation distances requirements between water and sewer mains were not met. Non-pressure grade ABS pipe was used for the sewage collection system, pressure grade pipe should have been used. Compliant pipe bedding consisted of 3/8 - inch gravel. Compliant flowable fill was used at the intersection of the water and sewer mains.
4. If a Section 17 of Chapter 3 review is required indicate the basis for determining groundwater will be protected.
Not Required.
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 Mark D. Baron, P.E., mbaron@wyo.gov, Southwest District Engineer and completed on October 22, 2010. 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."

xc: D. Shay Smith, Forsgren Associates Inc., 849 Front Street Suite 201, Evanston, WY 82930
Ty S. Ross, North Star Utility, P.O. Box 610, Jackson, WY 83001



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

January 19, 2011

CERTIFIED

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

RE: Antelope Coal Septic Systems
Draft Permit **10-295**, Class V Septic System
Campbell County, Wyoming

Dear Ms. Cheung:

Antelope Coal LLC has submitted an application for the continued injection of domestic wastewater via two (2) septic systems (one existing and one proposed). Wastewater is injected into the alluvial aquifer located in Section 35, T41N, R71W. 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 have been posted 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) 777-6428 or anunn@wyo.gov. Comments should be submitted in writing to the UIC Program in the Water Quality Division within the next 50 days.

Sincerely,

Adrienne Nunn
Project Engineer
Water Quality Division

ADN/rm/11-0082

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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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)

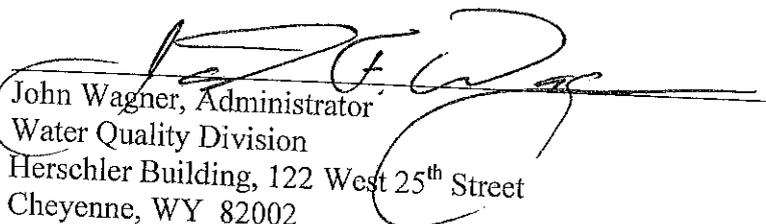
Permit Number 10-295
Previous Permits 88-061, 91-108, 5E3-98-1
Facility Number WYS-009-013

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: Antelope Coal LLC
Attn: Kyle Wendtland
Caller Box 3008
Gillette, WY 82717
(307) 464-2571

Antelope Coal LLC, hereafter referred to as the permittee, is authorized to continue to operate with new construction the facility, Antelope Coal Septic Systems. The facility has one existing and will build a second conventional septic tank and leach field wastewater disposal systems in the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of SW $\frac{1}{4}$ Section 35, Township 41 North, Range 71 West, of the 6th Principal Meridian, Campbell 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 25th Street
Cheyenne, WY 82002
(307)-777-7781

3/22/11
Date


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

3/22/11
Date

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A. Discharge Zone

The permittee is authorized to continue to inject into the existing east leachfield and the proposed west leachfield. The maximum permitted injection volume from both leachfields is 11,216 gallons per day (gpd). The primary treated domestic wastewater is injected into the Antelope Creek Alluvium. The shallowest groundwater is approximately 19 feet below ground surface.

B. Well and Area of Review

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

NE¹/₄ of the SE¹/₄ of SW¹/₄ Section 35, Township 41 North, Range 71 West, 6th 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	11,216	GPD
Thickness of Receiver	50	Feet
Area of Review	360	Acres
Hydraulic Conductivity	33	Feet/Day

C. Groundwater Classification

The groundwater in the Antelope Creek Alluvium is classified as Class III according to Wyoming Water Quality Rules and Regulations, Chapter 8. This classification is made because baseline water quality information shows an iron concentration greater than 2 mg/L and a total dissolved solids concentration greater than 2,000 mg/L. There is one domestic water supply well within the area of review, but it is 550 feet deep and will not be affected by the shallow septic system injection. Groundwater of Class III 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 is authorized to operate two (2) leachfields. One leachfield, called the west leachfield, is currently constructed. The west leachfield is authorized to inject an average of 2,640 gpd and a maximum of 4,400 gpd. The other leachfield is called the east leachfield. The east leachfield is a new construction under permit 10-295. The east leachfield is authorized to receive an average of 4,090 gpd and a maximum of 6,816 gpd. The combined authorized injection rate is 6,730 gpd average and 11,216 gpd maximum. Both leachfields receive domestic waste from employee restrooms and showers.

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 2 (Annual Groundwater Monitoring Schedule)

WELL NAME OR NUMBER	SAMPLING SCHEDULE	PARAMETER ANALYZED	ANALYTICAL METHOD	PERMIT LIMIT or UCL*
OWAL-11	One sample: (1/01-6/30)	Ammonia as N	EPA 1689	No limit
		Chloride	EPA 300.0	2000 mg/L
	One sample: (7/01-12/31)	Nitrate as N	EPA 353.2	No limit
		pH		No limit
		Top of static water level elevation (ft)	Casing elevation must be surveyed	Not applicable
Septic Systems	6/30 and 12/31	Total Volume Injected	Flow Meter	11,216 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 biannually 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 14th).

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. Conformed 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: **10-295**
- B. Facilities Covered: Antelope Coal 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 archives file for this permit will include adequate documentation of all sections of this Statement of Basis.

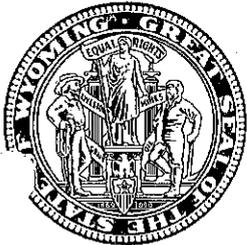
VII. Applicant and Public Participation

- 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 February 10, 2011 and ending on March 11, 2011 (30 day notice as required by Wyoming Water Quality Rules and Regulations, Chapter 16). This notice was published in the Gillette News Record 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, completed on January 18, 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

March 22, 2011

Antelope Coal LLC
Attn: Kyle Wendtland
Caller Box 3008
Gillette, WY 82717

RE: Antelope Coal LLC
Final Permit **10-295**, Class V Septic System
Campbell County, Wyoming

Dear Mr. Wendtland:

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) 777-5623 or by email at jpasse@wyo.gov

Sincerely,

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

JP/rm/11-0263

Enclosures: Report Forms
Permit

cc: Kevin Frederick, WDEQ

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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Department of Environmental Quality



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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 22, 2010

Jerry Kienlen
Split Rock Land and Cattle Company
1523 South Flat Road
Worland, WY 82401

RE: Kienlen Addition 8-Inch Sewer Main. DEQ Permit #10-296, Washakie County, Lat 44.021944, Long. 107.965278

Dear Mr. Kienlen,

This project consists of the installation of a new 8-inch SDR35 sewer main to serve lots 1 through 10 of the Kienlen Addition to the City of Worland.

The above application for coverage under General Permit has been reviewed in accordance with Chapter 3, Section 7; and Chapter 11, Part B 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

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

Sincerely,

Hannes E. Stueckler
Assistant Northwest District Engineer
Water Quality Division

James Brough, P.E.
Northwest District Engineer
Water Quality Division

xc: PDF to Cheyenne
David W. Anderson, P.E., Donnell and Allred, Inc. Box 638, Worland, WY 82401

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

ABANDONED MINES
(307) 332-5085

AIR QUALITY
(307) 332-6755

LAND QUALITY
(307) 332-3047

SOLID & HAZARDOUS WASTE
(307) 332-6924

WATER QUALITY
(307) 332-3144



WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
PERMIT TO CONSTRUCT

PERMIT NO. 10-297R

Yellowstone National Park Fishing Bridge Well's Connection to Fishing Bridge Pumphouse
PWS #5680079

This permit hereby authorizes the applicant:

Nancy Ward, Supervising Engineer
Yellowstone National Park
P.O. Box 168
Mammoth, WY 82190

to install water mains from Fishing Bridge Well #1 and Fishing Bridge Well #2 and connect to existing Fishing Bridge Pump House; according to the procedures and conditions of the application number 10-297R. The connection to the Fishing Bridge Pump House includes the installation of a gate valve, flow meter, sampling tap, and pressure gauge. The facility is located near the intersection of the Grand Loop Road and the East Entrance Road at Latitude 44.6 North Longitude 110.4 West in the county of Teton, in the State of Wyoming. All construction, installation, or modification allowed by this permit shall be completed by October 1, 2012.

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, or any infringement of federal, state or local laws or regulations.

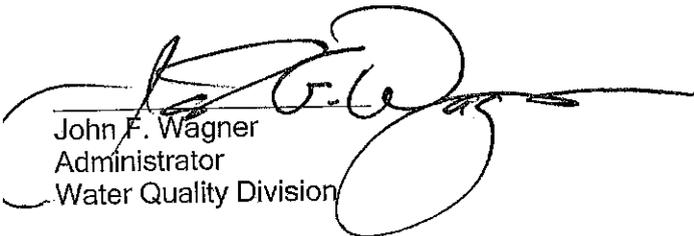
The permittee shall construct and operate the permitted facility in accordance with the statements, representations, procedures, terms and conditions of the permit application, supporting documents and permit. This permit does not

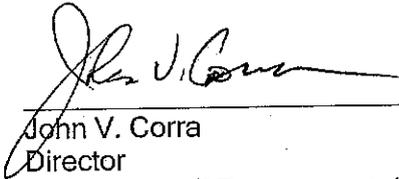
relieve the permittee from any duty to obtain any other permit or authorization that may be required by any provision of federal, state or local laws.

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 Wyoming Department of Environmental Quality, Water Quality Division (WQD), Northwest District Engineer, 510 Meadowview Drive, Lander, WY 82520, 307-332-3144, FAX 307-332-3183, 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 Northwest District 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 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

10/26/10
Date of Issuance

JSB/rm/10-0956

STATEMENT OF BASIS

1. Permit Number: 10-297R
2. Application reviewed for compliance with the following regulations:
Chapters 3 and 12 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 by regulations and approval is based upon a deviation from applicable regulations in accordance with Section 5 of applicable regulations.
No.
5. If Section 17 of Chapter 3 review is required indicate the basis for determining groundwater will be protected.
Public water supply wells are exempted from review by Chapter 3, Section 17
6. 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 James S. Brough, jbroug@state.wy.us, Northwest District Engineer and completed on October 25, 2010. 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."

cc: Sherri Jones, P.E., Tetra Tech, Inc., 1576 Sherman St., Suite 100, Denver, CO 80203



The State
of Wyoming



Department of Environmental Quality

Dave Fraudenthal, Governor

John Corra, Director

152 N. Durbin Street • Suite 100 • Casper, Wyoming 82601

NOTIFICATION OF COVERAGE

July 19, 2010

Alex Clark
Pine Mountain Evaporation and Reclamation, LLC
PO Box 20
Rock Springs, WY 82901

RE: Pine Mountain Evaporation and Reclamation LLC Pilot Project Water Treatment, Permit to Construct #10-298 Reference Permit 04-181

Dear Mr. Clark:

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 60 days from the date of start up or November 1, 2010. The pilot project will only use well water from the permit site during the pilot testing period.**

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. Two week advance notice of the date that the construction/start up 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. The treated water will be sampled and the results submitted to DEQ for review prior to being disposed of or utilized as irrigation water.

SOLID & HAZARDOUS WASTE DIVISION
(307) 473-3450
Fax: (307) 473-3458

AIR QUALITY DIVISION
(307) 473-3455
Fax: (307) 473-3458

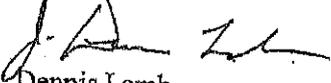
WATER QUALITY DIVISION
(307) 473-3465
Fax: (307) 473-3458



- d. Sampling of any waste products will be performed and submitted to DEQ for review/approval prior to disposal.
- e. A detailed report including on-site and lab analytical data relating to the facility's performance 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.

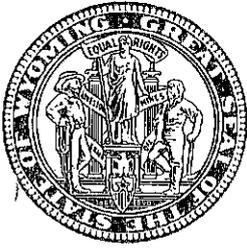
Sincerely,



Dennis Lamb
CBM/Oil and Gas Group
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.

Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 23, 2010

Beth Goodnough
Western Fuels - Wyoming Inc
PO Box 1809
Gillette, WY 82718

RE: Dry Fork Mine Security Shack Small Commercial Wastewater System, Campbell County
Location: NE ¼, SW ¼, Section 29, T51N, Range 71W; Permit # 10-299

Dear Mrs. Goodnough:

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

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 contact the Campbell County Building and Zoning Department at 307.682.1970 for compliance with any further county regulations. **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/10-0646

cc: IPS, Cheyenne
WYDEQ Casper File
John Boniface, Campbell County Public Works, 500 S Gillette Avenue, Suite 1400, Gillette, WY 82716

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

ADMIN/OUTREACH (307) 777-7937 FAX 777-3610	ABANDONED MINES (307) 777-6145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7369 FAX 777-5973	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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Dave Freudenthal, Governor

John Corra, Director

NOTIFICATION OF COVERAGE

July 23, 2010

Tyrell Christensen
PO Box 45
Newcastle, WY 82701

RE: Christensen Small Residential Wastewater System, Weston County
Location: NW ¼, SE ¼, Section 17, T48N, Range 61W;

Permit # 10-300

Dear Mr. Christensen:

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

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.

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/10-0647

cc: IPS, Cheyenne
WYDEQ Casper File
John Patik, Black Hills Plumbing, Inc., 1122 S. Summit Avenue, Newcastle, WY 82701
Weston County Assessor, 1 W Main, Newcastle, WY 82701

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

ADMIN/OUTREACH (307) 777-7937 FAX 777-3610	ABANDONED MINES (307) 777-6145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7369 FAX 777-5973	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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