

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-401
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

UNITED STATES WELDING, INC. POND

This permit hereby authorizes the applicant:

Intermountain Leasing, Inc.
1221 South Clarkson Street, Suite 416
Denver, Colorado 80210

to construct, install or modify a evaporative/containment pond with groundwater monitoring wells according to the procedures and conditions of the application number 88-401. The facility is located in Section 34, T34N, R80W in the county of Natrona, in the State of Wyoming. This permit shall be effective for a period of two (2) (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

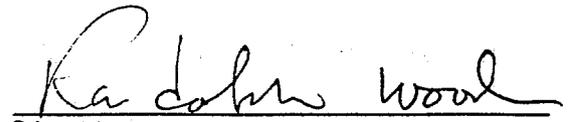
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

10-24-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Special Conditions for Permit to Construct #88-401

1. Soil or bentonite liners used to protect groundwater quality shall meet the following criteria. Written certification that the soil liner was constructed in accordance with specifications shall be provided by a Wyoming registered professional engineer or an independent soils laboratory. Tests for water content and density shall be taken during application of each lift. Additionally, either permeability testing of undisturbed core samples from the in-place seal, or detailed tests such as particle size distribution and Atterburg limits confirming that the soil used in the liner construction was the same soil initially tested, shall be provided. In all cases, at least one test shall be provided per acre per lift, except for core sampling of the in-place liner, where one core of the completed liner shall be tested per acre.
2. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-401. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
3. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.

Conditions to Permit 88-401 (continued)

5. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
 - a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is strongly recommended;
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
6. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
7. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
8. All monitor wells associated with this facility shall be sampled and the wastewater analyzed January, April, and July of 1989, and yearly thereafter in the month of July for the parameters listed below:

TDS

The results of these analyses shall be submitted to the Cheyenne office by the last day of the month following the end of the sampling due date. The first set of results are due by the last day of February.

Conditions to Permit 88-401 (continued)

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

cc: Jake Strohman



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR



Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration
(307) 777-7937

Air Quality Division
(307) 777-7391

Land Quality Division
(307) 777-7756

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781

October 24 1988

Intermountain Leasing, Inc.
1221 South Clarkson Street, Suite 416
Denver, Colorado 80210

Re: Permit to Construct #88-401, United State Welding, Inc. Pond

To Whom it May Concern:

This letter is to accompany the Department of Environmental Quality (DEQ) Permit to Construct #88-401. Please be advised that while the DEQ Water Quality Division is permitting the construction of the lime slurry pond according to the procedures and conditions of the application #88-401, the DEQ/WQD will expect the owner of the pond to mitigate any groundwater contamination that may occur due to leakage from the lime slurry pond. It is the concern of the DEQ/WQD that the bentonite liner will not be completely compatible with the lime slurry, thus the lime slurry may eventually breach the bentonite liner and contaminate the groundwater. If the groundwater is found to be contaminated, it will be mitigated to background levels taken in the first half of the year 1989.

Sincerely,

David Montague
Engineering Specialist
Water Quality Division

DM/jn

cc: Chen & Associates

RF.

PERMIT TO CONSTRUCT

[] New

Permit No. 88-402RR

[] Renewal

[X] Modified

Rock Springs - Water Distribution System
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Joint Powers Water Board

P.O. Box 158

Green River, WY 82935

to modify a water distribution system facility according to the procedures and conditions of the application No. 88-402RR. The facility is located in Sections 25, 26, 35, and 36 T19N R105W in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of

its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

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 issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

William P. Parland
Administrator
Water Quality Division

A. Alan Edwards
Director
Dept. of Environmental Quality

April 25, 1989
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-403
See Conditions

X New
Renewal
Modified

Mountain View Mobile Home Park

This permit hereby authorizes the applicant:

Del Ray Stephens
%Stan Jozen
6705 Braehill Rd #B1
Cheyenne, WY 82009

to construct, install or modify commercial septic system according to the procedures and conditions of the application number 88-403. The facility is located in S15, T14N, R66W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

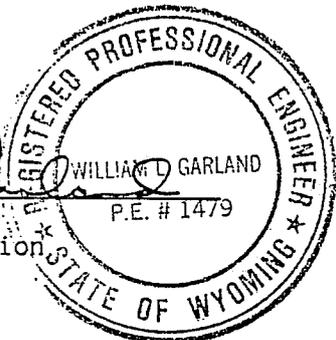
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

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 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.

AUTHORIZED BY:

William D. Garland
Administrator
Water Quality Division



Rudolph Wood
Director
Department of Environmental Quality

12-13-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies..

Conditions to Permit to Construct #88-403

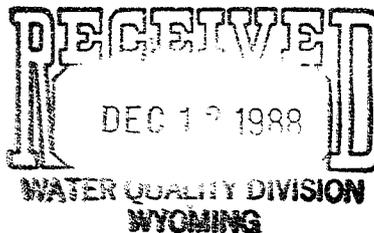
1. The permittee shall notify Don Pack, Cheyenne Laramie County Health Department, Division of Environmental Health, 1710 Snyder Avenue, Cheyenne, WY 82001, phone number (307) 638-8545 of the estimated day of completion of this project. Inspection of the installed system is required prior to backfilling.
2. The drainfield located near the access road shall be protected from vehicular traffic.

cc: Don Pack, Laramie County Environmental Health

THE STATE



OF WYOMING



Department of Environmental Quality

Air Quality Division
(307) 332-3144

Land Quality Division
(307) 332-3047

Solid Waste Management Program
(307) 332-3144

Water Quality Division
(307) 332-3144

December 9, 1988

~~TG Soda Ash~~
ATTN: ~~Otto C. Schnauber~~
~~P.O. Box 100~~
~~Granger, WY 82934~~

RE: TG Soda Ash, Inc. Ref. No. 88-404

Dear Mr. Schnauber:

Due to the lack of response, your application is considered inactive and is being returned under the assumption that the applicant does not wish to proceed with the permit to construct process.

This project has not been permitted. Construction of this facility without a permit is a violation of the Environmental Quality Act and punishable with fines not to exceed \$10,000 per day of violation. If you wish to reconsider construction of this facility, then application procedures pursuant to Chapter III, Water Quality Rules and Regulations, must be followed.

Sincerely,

A handwritten signature in cursive script that reads "William L. Garland".

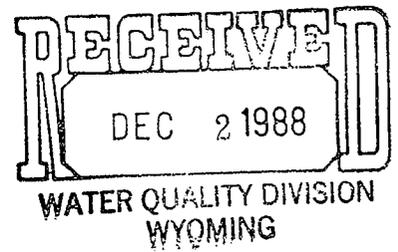
William L. Garland
Administrator
Water Quality Division

WLG/BL/anc

cc: ~~Norma Coulson, DEQ/WQD, Cheyenne~~

 **Tg Soda Ash**, Inc.

P.O. Box 100 Granger, Wyoming 82934
(307) 875-2700



Otto C. Schnauber
Senior Environment Engineer
☎ (307) 875-2700 ext. 228

November 30, 1988

Mr. William Locke, P.E.
Southwest District Supervisor
Department of Environmental Quality
Water Quality Division
210 Lincoln Street
Lander, WY 82620

Dear Mr. Locke:

We enclosed under cover of our letter to you on September 13, 1988, a permit application for construction of sedimentation facilities at our site. For various reasons we were unable to execute this project prior to the onset of winter weather. We have decided to re-evaluate certain parts of the design and therefore wish to withdraw our permit application. We intend to pursue construction of the sedimentation facilities again next spring and will submit a new permit application and appropriate information at that time.

If you have any questions, please call me.

Sincerely,



Otto C. Schnauber
Sr. Environmental Engineer

OCS/

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-405
SEE SPECIAL CONDITIONS

- X New
- Renewal
- Modified

GRAY CUMMERFIELD 3-4 B ANODE

This permit hereby authorizes the applicant:

WEM Join Ventures
P O Box 3107
Gillette, Wyoming 82716

to construct, install or modify a deep groundbed anode according to the procedures and conditions of the application number 88-405. The facility is located in Section 26, T50N, R69W, SW $\frac{1}{4}$ in the county of Campbell, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

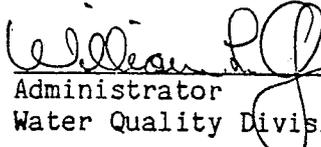
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

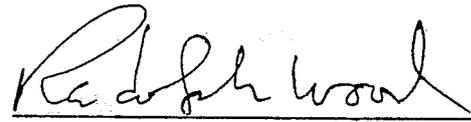
Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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.

AUTHORIZED BY:


Administrator
Water Quality Division




Director
Department of Environmental Quality

9-28-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Special Conditions for Permit to Construct #88-405

1. The cathodic protection deep anode ground bed well shall be installed in accordance with the conditions of this permit and plans and specifications submitted in permit to construct application number 88-405.
2. After the deep anode ground bed well has fulfilled its useful purpose, it shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after the well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.
3. In addition to the anode bed construction information submitted with the permit application, the following items relating to well construction must be addressed when the well is installed:
 - a. Bentonite grout seal installed to a depth just above coke breeze.
 - b. The coke breeze backfill has a total organic content no greater than 0.2 percent.
 - c. All aquifers encountered while drilling shall be isolated with polymer mud to prevent co-mingling of different aquifers or each aquifer shall be isolated, sampled and analyzed for all parameters contained in Table I of Chapter VIII of Wyoming Water Quality Rules and Regulations. If aquifers are of the same class of use as determined by the Department of Environmental Quality, intermingling may be allowed.
4. Within 45 days after the well has been installed, as-built construction plans need to be submitted to the Wyoming Department of Environmental Quality, Water Quality Division, detailing that the groundwater was protected during construction.
5. A concrete pad at least 5' x 5' x 6" shall be installed around the top of the anode to insure a surface seal.

PERMIT TO CONSTRUCT

PERMIT NO. 88-406
See Conditions

- New
- Renewal
- Modified

Action Electric Service Septic System

This permit hereby authorizes the applicant:

Richard Kersey
5110 N College Avenue
Cheyenne, WY 82001

to construct, install or modify commercial subsurface wastewater treatment and disposal (septic) system according to the procedures and conditions of the application number 88-406. The facility is located in S22, T14N, R66W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

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 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

10-20-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #88-406

1. The permittee shall notify Don Pack, Cheyenne Laramie County Health Department, Division of Environmental Health, 1710 Snyder Avenue, Cheyenne, WY 82001, phone number (307) 638-8545 of the estimated day of completion of this project. Inspection of the installed system is required prior to backfilling.
2. The intent of the construction authorized by this permit is to provide facilities for the interim treatment of wastewater until such time that treatment is available through a regional wastewater system. The 201 Facilities Plan Final Report: City of Cheyenne, South Cheyenne Water and Sewer District and Laramie County requires that treatment be provided through a regional system. The facilities authorized by this permit will be operated until services are available through the approved regional system. At that time these facilities will be abandoned or integrated into the regional system in accordance with the requirements of the Facility Plan.

cc: Cheyenne Laramie Co. Health Dept., Division of Environmental Health, 1710 Snyder Ave., Cheyenne, WY 82001
Don Pack, Laramie County Environmental Health

REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: Action Electric Service, Inc.

ENGINEER: Joe Cub
5920 Yellowstone Road
Cheyenne, Wyoming 82009

APPLICANT: Mr. Richard Kersey
5110 N. College Drive
Cheyenne, Wyoming 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 88-406

REVIEWING ENGINEER: Thomas Norman *TJN*

DATE OF REVIEW: September 22, 1988

ACTION: NOT AUTHORIZED FOR CONSTRUCTION.

COMMENTS:

1. This facility is located within the regional wastewater service area. Before the Water Quality Division can issue a permit, an exemption must be obtained from connecting to the regional wastewater system. Contact the city/county planning office for the exemption.
2. In order for the engineer to sign the application on behalf of the applicant, documentation must be submitted that the engineer is a legal representative of the owner.
3. On page 2, the percolation rate is shown to be 33 minutes/inch while on one of the plan sheets the rate varies from 15-19 minutes/inch.
4. The depth to bedrock and seasonal high groundwater must be determined.

/jn

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-407
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Elk Basin No. 1 Test Hole

This permit hereby authorizes the applicant:

Amoco Production Company
P O Box 800
Denver, Colorado 80134

to construct, install or modify test holes according to the procedures and conditions of the application number 88-407. The facility is located in Section 24, T58N, R100W in the county of Park, in the State of Wyoming. This permit shall be effective for a period of five (5) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

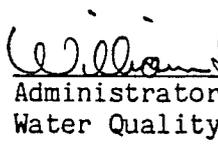
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

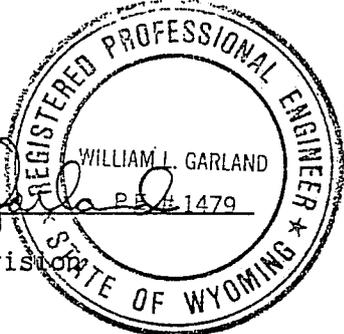
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer,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

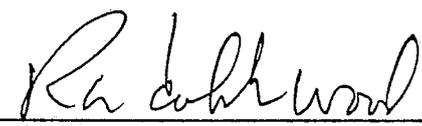
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:


Administrator
Water Quality Division




Director
Department of Environmental Quality

10-13-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions for Monitoring Wells

1. The groundwater test hole wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-407. Additional holes meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. After the test holes 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. Within 15 days after the test hole has been plugged and abandoned, the owner shall file a plugging record with the WQD.
3. DEQ/WQD personnel shall be given at least two weeks notice prior to the drilling of the test holes and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
4. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
 - a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, hole location and elevation;
 - c. Final location, and logs of the test hole;
 - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - e. Water level;

Conditions to Permit 88-407 (continued)

- f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A potentiometric surface map showing the direction of groundwater movement; and
 - i. Interpretation of data and conclusions including recommended remedial measures.
5. Proper test hole evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
 6. The test hole shall be sampled and the wastewater analyzed for the parameters listed below:

Ph, Total Dissolved Solids (TDS), Aluminum (Al), Barium (BA) Cadmium (Cd), Chromum (Cr) Copper (Cu), Iron (Fe), Lead (Pb), Manganese (Mn), Mercury (Hy), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Zinc (Zn), Chloride (Cl), Magnessuim (Mg), Pottassium (K), and Sulfate (SO₄).
 7. The results of any analyses conducted on soil or water removed from the test hole shall be provided to the department as soon as they are available.
 8. All equipment used for drilling will be decontaminated prior to use.

cc: Jake Strohman

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-408
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Go Gas Convenience Store

This permit hereby authorizes the applicant:

Richard Mills
1274 E. 130th Avenue
Thornton, CO 80229

to construct, install or modify a network of 3 monitor wells according to the procedures and conditions of the application number 88-408. The facility is located in SW₁, MW₁, S25, T47N, R93W in the county of Washakie, in the State of Wyoming. This permit shall be effective for a period of 2 years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

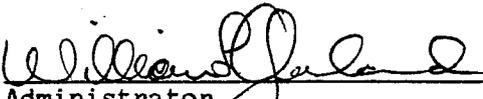
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

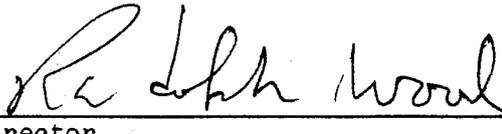
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

11-2-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions for Permit to Construct 88-408

1. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division.
2. Once the monitor wells have been completed, the owner will provide the Wyoming Department of Environmental Quality, Water Quality Division with a report that details the logs and locations. If the construction specifications were not included in the application or changes were made, they should be included in the report.
3. The results of any analyses conducted on soil or water removed from these wells shall be provided to the department as soon as they are available.
4. All monitor wells and soil borings will be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of the Water Quality Division Rules and Regulations.
5. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.
6. Caps shall be kept locked at all times other than sampling. Any tampering with the monitor wells shall be reported immediately to the division.
7. The entire extent of contamination will be defined including hydrocarbon product layers and dissolved constituents.
8. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required.

Conditions to Permit 88-408 (continued)

9. Provisions shall be made for the Development of all monitor wells prior to sampling.
10. DEQ/WQD personnel shall be given sufficient notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
11. A reasonable time frame for the submittal of a hydrocarbon recovery system application for a permit to construct and the installation of this system should be provided to the department as soon as possible.
12. The requirement in Chapter XI, Part G, Section 65(a) is waived and a seal depth of less than 20 feet is allowed.

cc: Taylor Sword, Groundwater Technology, Inc., 6879 South Emporia St.,
Englewood, CO 80112
Jake Strohman, DEQ/WQD, Cheyenne
Steve Gerber, DEQ/WQD, Lander

R. F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-409
See Conditions

X New
Renewal
Modified

Alloway Small Septic System

This permit hereby authorizes the applicant:

Geraldine Alloway
P O Box 4694
Casper, WY 82604

to construct, install or modify small septic system according to the procedures and conditions of the application number 88-409. The facility is located in S32, T34N, R78W in the county of Natrona, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

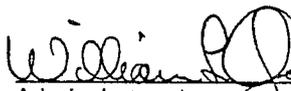
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

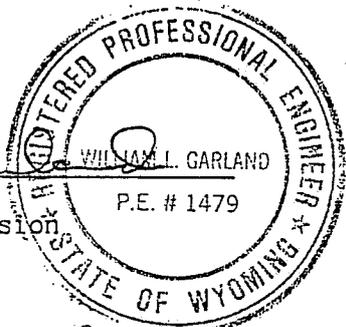
Nothing in this permit shall be construed to preclude the institution of any legal

action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:


Administrator
Water Quality Division





Director
Department of Environmental Quality

10-13-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #88-409

1. Increase the distance from the leachfield pipe and the edge of the leachfield stone from 3 feet to 5 feet, so the maximum distance of 10 feet between the leachfield pipes will be met.
2. The permittee shall notify Ken Hoff, Natrona County Health Department, 1200 East 3rd, Casper, Wyoming 82601-2990, phone number 235-9316, of the estimated day of completion of this project. Inspection of the installed system is required prior to backfilling. At least one working day (24 hours) notice is required prior to backfilling.

cc: Ken Hoff



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR



Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration
(307) 777-7937

Air Quality Division
(307) 777-7391

Land Quality Division
(307) 777-7756

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781

November 2, 1988

Joby Adams
Delta Environmental Consultants, Inc.
2637 Midpoint Drive, Suite F
Fort Collins, CO 80525

Re: As Built Letter

Dear Mr. Adams:

The Water Quality Division is in receipt of your application for a permit to construct for the boreholes drilled at the Wyoming Truck Plaza site. During our conversation on September 15, 1988, you stated that the boreholes had been abandoned using clean backfill and bentonite. Since the application was received after the boreholes were installed and abandoned, a permit to construct cannot be issued by this division. However, since the boreholes were properly abandoned, let this letter serve as a formal as-built letter. In the future, a permit to construct must be issued by this department prior to construction.

If you have any questions, feel free to call me at 307-777-7781.

Sincerely,

Scott C. Forister
Environmental Engineering Specialist
Water Quality Division

SCF/jn

cc: Jake Strohman, DEQ/WQD

C. Crockett

DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE OF WYOMING
GROUNDWATER POLLUTION CONTROL PERMIT
AUTHORIZATION TO DISCHARGE INTO UNDERGROUND RECEIVERS
(Permit to Inject)

(X) New

Permit Number:

() Modified

UIC 88-411

UIC CLASS 5X13

In compliance with the Wyoming Environmental Quality Act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through (iv), Laws 1973, Ch. 250, Section 1) and Water Quality Rules and Regulations Chapter IX (September 4, 1980),

FMC Wyoming Corporation
P.O. Box 872
Green River, Wyoming 82935

is authorized to operate

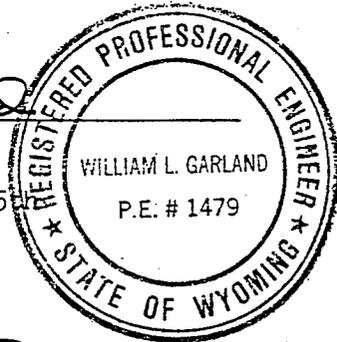
an underground tailings disposal system in the mined out sections of the Green River Trona mine.

according to procedures and conditions of the application UIC 88-411 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.

William L. Garland

Administrator
Water Quality Division
Herschler Building, 122 W. 25th
Cheyenne, WY 82002
Phone: (307) 777-7781



Sept 30, 1988

Date

Ra... Wood

Director
Department of Environmental Quality
Herschler Building, 122 W. 25th
Cheyenne, WY 82002

Oct 11, 1988

Date

A. Discharge (Injection) Zone and Area of Review

The Area of Review is limited to the following legal description:

TOWNSHIP 19 NORTH, RANGE 110 WEST, SIXTH P.M.

=====

Section 19: S 1/2

Section 20: S 1/2

Section 21: SW 1/4 SE 1/4, SW 1/4

Section 28: NW 1/4, NW 1/4 NE 1/4, S 1/2 NE 1/4

Section 29: NW 1/4 NE 1/4

Section 30: NW 1/4 NE 1/4

The receiver for this application is limited to mined out openings within the Wilkins Peak member of the Green River Formation. It has been demonstrated using the best of all possible methods that the Wilkins Peak member is not in hydrologic communication with any other aquifer. This is evidenced by the fact that the mine workings themselves are completely dry except for water that has been introduced in the course of mining the trona.

B. Groundwater Classification

There is no groundwater in the Wilkins Peak member at the present time. It is therefore not possible to issue a groundwater classification for the intended receiver. It has been demonstrated that the aquifers overlying the receiver, located in the Laney member of the Green River Formation contain waters of Class VI (Industrial Use) by virtue of the TDS content which is in excess of 10,000 mg/l in most cases. TDS content as high as 16,000 is common in the Laney member. The permittee has provided analyses of waters in the Bridger member of the Green River Formation that indicate that TDS values are in the range of 13,500 at the present time. Classification of the waters in the Bridger member is not necessary for this permit, and would require that WQD make a determination that this water quality is the natural state and is not due to near surface contamination.

C. Authorized Operations

The permittee is authorized to operate an underground tailings disposal system that injects a water slurry of trona tailings through a well directly into a low lying part of the mined out portion of the underground mine. Control of the tailings underground will be primarily by gravity, and gravity flow will be utilized to allow the tailings to fill the low lying area of the underground mine. Entry into this area by personnel underground is presently prevented by a series of bulkheads that seal off this section of the mine. Excess water will be decanted from this operation through a second well that will reclaim high TDS water of low TSS for re-use in the milling operations. This water will be cycled back through the existing evaporation ponds and then through existing tailings decant lines.

The tailings that are to be injected consist of shale breaks from within the ore itself suspended in a saturated or nearly saturated solution of sodium carbonate in water. The shale breaks themselves may contain low grade oil shale. As of the writing of this permit, mine wastes are exempt from regulation as hazardous waste by EPA.

It is recognized that more than one injection well may be needed in the future, and that eventually wells may be abandoned and replaced with new wells in different locations. For this reason, this permit will allow up to five (5) injection wells and five (5) decant wells to be active at any one time. If it becomes necessary to abandon a well, that fact will not affect the validity of this permit.

The volume to be injected at present was stated as 600 gallons per minute in the permit. It is also recognized that this permit will cover additional stages of the project. For this reason, the permit limit for this injection is 3,000 gallons per minute, or five (5) wells injecting 600 gallons per minute each.

The pressure limitations on this permit are based on the strength of J-55 casing and the anticipated most extreme operating condition. Because it may be necessary to occasionally build some pressure to cause the tailings to move laterally away from the well, the pressure limitation for this permit is 500 psi as measured at the surface and at the wellhead. The surface pressure normally will be at atmospheric pressure or slightly in the vacuum range. Water Quality Division assumes no liability for anything that FMC does, or for any damage to underground structures or for injuries or death that may result if FMC chooses to use elevated pressures for short times. Any injection above atmospheric into an active underground mine may entail some risk to the facilities near the injection site.

The permittee is specifically not authorized under this permit to introduce any waste stream other than the tailings themselves into this system. Specifically prohibited acts include the introduction of any solvent waste as defined by 40 CFR 261.31 through 261.33. No waste from any other source may be introduced on a commercial basis.

Tailings from the plant as it is presently operating or tailings from any tailings cell at the subject operation may be introduced into this system without the necessity of compiling records of the source location for the discharge. Tailings from any future milling operation on the site may be injected under this permit so long as the chemical nature of those tailings are similar to the present tailings.

D. Proper Operation and Maintenance

The permittee is required to conduct the operation in accordance with statements, representations and procedures presented in the complete permit

application and supporting documents, as accepted and approved by the administrator.

The permittee is required at all times to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve permit compliance. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls, including appropriate quality assurance procedures.

The subsurface discharge (injection) authorized by permit shall be consistent with the conditions and content of the permit; 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.

E. Entry and Inspection

The permittee shall allow the administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate rules and regulations of the Department, any substances or parameters at any location.

F. Environmental Monitoring Program for Groundwaters of the State

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall prepare records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation to be retained for a period of at least 3 years after closure of the facility.
3. 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 date(s) analyses were performed;
 - d. Names of individuals who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
4. The prescribed program for this permitted activity is as follows:

Water Quality Division has reviewed the monitoring plans presently being done for the Land Quality Division and for Water Quality Division on other permits. It is Water Quality Divisions position that no additional shallow monitor wells are required for this operation. Nothing in this permit, however, limits either division from requiring additional monitor wells at a later date, if it becomes apparent that additional wells are warranted to monitor this system or any other system on the site.

G. Requirements for Monitoring the Discharge

Discharge (injection) volume and/or pressure shall be controlled and monitored to prevent fracturing of confining strata.

FMC is required to monitor the injection pressure on a continuous basis. This may be accomplished by the installation of a strip chart or circular recorder on the tailings line, either at the mill or at the wellhead. Due to the vacuum pressure at the wellhead, it may be more desirable to install this guage in the mill. If the mill has a computer controller, printouts from this system will meet the requirement to continuously monitor the discharge pressure.

FMC is also required to monitor the discharge volume on a continuous basis. Meter types acceptable for this application include a differential pressure meter, shedding vortex meter or another meter of FMC's choice. WQD accepts no liability for the choice of meter, and FMC must recognize that it may take more than one attempt to obtain a meter that will work in this application. The volume injected is to be recorded on a continuous recording device, either the same device or a separate device as the one recording pressure.

FMC is also required to monitor the volume of water reclaimed on a continuous basis. This volume is to be recorded on a similar device from the one recording volumes injected. The function of all of these devices is to produce a record that can be used in mass balance calculations. At the end of each year of operation, FMC should perform a mass balance calculation showing the total net volume of tailings and water that has been deposited in the mine. This calculation can be done to any closing date that FMC finds convenient, but the same closing date should be used in each

subsequent year's calculation. The results of this calculation shall be included in the annual mining report submitted to the Land Quality Division.

Within 90 days of the construction of this system, an analysis shall be done on the water fraction being injected into the system. This analysis shall include all metals listed on Land Quality Division Guideline 8 for trona in-situ mines. Within 90 days of each five year anniversary of the date of this permit, this analysis shall be repeated.

H. Test Procedures

Test procedures for the determination of water quality parameters and constituents shall be in accord with provisions of Water Quality Rules and Regulations Chapter VIII, Section 7.

I. Records and Reports

1. 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, for a period of at least 3 years from the date of the report or application.
2. The permittee shall give notice to the administrator as soon as possible of any planned physical alterations or additions to the permitted facility.
3. 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.
4. Monitoring results shall be reported at intervals specified in Section C and/or Section G of this permit.
5. 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 14 days following each schedule date.
6. The permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the permittee 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 groundwaters of the state.

A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. This written submission

shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in 6. above.
8. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the administrator, it shall promptly submit such facts or information.
9. The permittee shall retain all records concerning the nature and composition of injected fluids until 5 years after completion of any specified plugging and abandonment procedures. The administrator may require the owner/operator to deliver the records to the administrator at the conclusion of the retention period.
10. A subsurface discharge (injection) well may not commence subsurface discharge (injection) until, following public notice and an opportunity for hearing, a groundwater pollution control permit has been issued by the department for the proposed operation, and:
 - a. Well construction is complete and the permittee has submitted notice of completion of construction to the administrator, and
 - b. The administrator has inspected or otherwise reviewed the subsurface discharge (injection) well and finds it in compliance with the conditions of the permit; or the permittee has not received notice from the administrator of intent to inspect or otherwise review the facility within 13 days of the notice of a. above, in which case prior inspection or review is waived, and
 - c. Well mechanical integrity testing has been proven or demonstrated to the satisfaction of the administrator.
11. Annual reports shall be submitted to the administrator within 30 days following the anniversary date of the permit.
12. A comprehensive report for an aborted or curtailed operation authorized by this permit shall be submitted to the administrator within 30 days of complete termination of the injection (discharge) or associated activity, in lieu of an annual report.

J. Permit Actions

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 the permit;

2. Obtaining a permit by misrepresentation or failure of the discharge well or system.

Each permit is reviewed at least once every 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 is issued.

A permit may be modified in whole or part in order to apply more, or less, stringent standards; or prohibitions for a toxic or other substance present in the permittee's discharge, as may be ordered by the council.

This operation (permit) can be terminated by authority of the administrator for one or more permit violations.

Public notice of the permit review and request for public comment will be made every 10 years by the administrator.

K. Mechanical Integrity

Each discharge well and associated discharge facilities is required to have mechanical integrity which demonstrates the unimpaired condition of the well and facilities. The approved procedures for demonstrating the mechanical integrity for the well and facilities handling the discharge authorized by this permit consist of:

Once every five years, or more often if required by the administrator the injection well or wells covered by this permit shall have the continued mechanical integrity demonstrated. Since this injection will be done without a tubing string, this will require that a temporary, retrievable bridge plug shall be set within 50 feet of the bottom of the casing and the casing shall be pressure tested to 10% more than the maximum pressure reached during the previous year, or a minimum of 200 psi. Before the initial injection is begun, a similar pressure test shall be completed at a pressure of 500 psi.

Abrasion of the well casing may or may not be a significant factor. For this reason, and because it is not possible to project the abrasive qualities of the tailings when acting directly on J-55 casing, a logging program is required. At the time of construction of the first well under this permit, a high sensitivity caliper log shall be run from the bottom of the casing to the top. After nine (9) months of operation this log shall be repeated. If the results of this log show more than 20% reduction in the wall thickness of the casing after nine (9) months of operation, this log shall be repeated every six (6) months thereafter. This caliper log shall be accurate enough to measure changes in average diameter of 1/10th of the wall thickness of the casing. At the conclusion of the test, a report shall be prepared dealing with the results of this logging. This report shall be submitted to Water Quality Division

within 30 days of the nine (9) month anniversary of this permit. Based on the result of this work, Water Quality Division may require that this logging program continue, that it be deleted from the permit, or that additional permit requirements are necessary.

Once, before injection begins, the casing shall be logged using a standard cement bond tool. Before running casing a base lithology log shall be run consisting of a single point resistance, spontaneous potential, and natural gamma curve at a minimum. More advanced electrical logs may be substituted for this requirement at FMC's option. A lithology log shall also be prepared on the cuttings from each well. These logs shall be submitted to Water Quality Division before injection begins. Good cement bond is required from the bottom of the J-55 casing to the top of each well drilled under this permit. At each five year anniversary of each well, the cement bond log shall be repeated and a casing caliper log shall also be run to demonstrate the continued sound condition of each well. These logs shall also be submitted to Water Quality Division.

Anytime FMC becomes aware, by any method whatsoever, that any injection well has lost mechanical integrity (has a hole in the casing), FMC shall immediately shut this well in and report by telephone to Water Quality Division at 777-7781 as well as to the Land Quality Division district office. WQD and LQD will decide jointly with FMC what remedial measures may be required if this should happen.

The operation (discharge) of any well or system will terminate immediately if mechanical integrity of the well or system fails and/or a leak or unauthorized fluid movement occurs. The discharge shall be discontinued until mechanical integrity has been restored and permission to continue the discharge has been obtained from the administrator.

L. Abandonment

The permittee shall notify the administrator at least 180 days before well abandonment. Immediately following the permanent cessation of subsurface discharge or related activity, or where a well has not been completed, the applicant/permittee shall notify the director and follow the procedures prescribed by the director for plugging and abandonment or the discontinuance of related activities:

At the time of final abandonment of any well under this permit, a cast iron bridge plug shall be permanently set 50 feet above the bottom of the J-55 casing. Type H cement shall be placed in the casing by pumping through a tubing string in stages as the tubing is withdrawn. This procedure shall be followed until the entire casing is cemented to the surface. At the surface, the casing shall be cut off 5 feet below grade and the surface reclaimed in accordance with applicable provisions of the permit to mine.

M. Duties of the Permittee

It is a duty of the permittee to:

1. Comply with all permit conditions;
2. Halt or reduce activity -- it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the permit conditions;
3. Take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit;
4. Furnish to 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; and furnish to the administrator, upon request, copies of records required to be kept by this permit.

N. Financial Responsibility

The permittee is required to maintain financial responsibility and resources in form approved by the director, to close, plug and abandon the discharge operation in a manner prescribed by the director.

FMC has included the abandonment cost for all wells in the bond calculation under its LQD permit to mine. Under this provision, these costs will automatically be updated each year if more wells are drilled or if other changes are made that significantly alter the cost of reclamation. For this reason, WQD does not consider additional financial responsibility documentation to be necessary.

O. Special Measures the Director Finds Necessary:

The discharge pipeline from the mill to the injection well will operate under a static head determined by the elevation of the wellhead and the elevation of the mill. An alarm shall be placed on this discharge line that will alert mill personnel any time the pressure falls to more than 10% less than the pressure required to overcome this static load. Such a condition is indicative of a breached pipeline on the surface.

P. Special Permit Conditions:

Pollution or waste which migrates into an aquifer containing a usable groundwater of the state is a violation of the permit.

Mechanical integrity -- operations terminate immediately if mechanical integrity of well or system fails and/or a leak or unauthorized fluid movement occurs.

Q. Signatories Requirement

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 described 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 an authorized representative.

Any person signing a report or other requested information shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

R. Noncompliance

Any permit noncompliance constitutes a violation of the permit.

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

S. Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the department director.

T. Responsibilities

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.

U. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

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.

DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE OF WYOMING
GROUNDWATER POLLUTION CONTROL PERMIT
AUTHORIZATION TO DISCHARGE INTO UNDERGROUND RECEIVERS
(Permit to Inject)

(X) New

Permit Number:

() Modified

UIC 88-411

UIC CLASS 5X13

In compliance with the Wyoming Environmental Quality Act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through (iv), Laws 1973, Ch. 250, Section 1) and Water Quality Rules and Regulations Chapter IX (September 4, 1980),

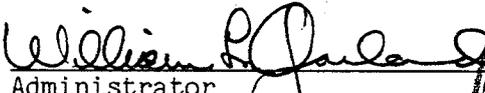
FMC Wyoming Corporation
P.O. Box 872
Green River, Wyoming 82935

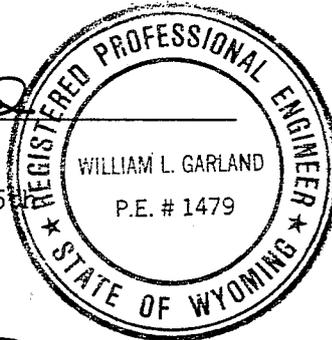
is authorized to operate

an underground tailings disposal system in the mined out sections of the Green River Trona mine.

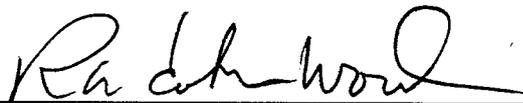
according to procedures and conditions of the application UIC 88-411 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.


Administrator
Water Quality Division
Herschler Building, 122 W. 25th
Cheyenne, WY 82002
Phone: (307) 777-7781



Sept 30, 1988
Date


Director
Department of Environmental Quality
Herschler Building, 122 W. 25th
Cheyenne, WY 82002

Oct 11, 1988
Date

A. Discharge (Injection) Zone and Area of Review

The Area of Review is limited to the following legal description:

TOWNSHIP 19 NORTH, RANGE 110 WEST, SIXTH P.M.

=====

Section 19: S 1/2

Section 20: S 1/2

Section 21: SW 1/4 SE 1/4, SW 1/4

Section 28: NW 1/4, NW 1/4 NE 1/4, S 1/2 NE 1/4

Section 29: NW 1/4 NE 1/4

Section 30: NW 1/4 NE 1/4

The receiver for this application is limited to mined out openings within the Wilkins Peak member of the Green River Formation. It has been demonstrated using the best of all possible methods that the Wilkins Peak member is not in hydrologic communication with any other aquifer. This is evidenced by the fact that the mine workings themselves are completely dry except for water that has been introduced in the course of mining the trona.

B. Groundwater Classification

There is no groundwater in the Wilkins Peak member at the present time. It is therefore not possible to issue a groundwater classification for the intended receiver. It has been demonstrated that the aquifers overlying the receiver, located in the Laney member of the Green River Formation contain waters of Class VI (Industrial Use) by virtue of the TDS content which is in excess of 10,000 mg/l in most cases. TDS content as high as 16,000 is common in the Laney member. The permittee has provided analyses of waters in the Bridger member of the Green River Formation that indicate that TDS values are in the range of 13,500 at the present time. Classification of the waters in the Bridger member is not necessary for this permit, and would require that WQD make a determination that this water quality is the natural state and is not due to near surface contamination.

C. Authorized Operations

The permittee is authorized to operate an underground tailings disposal system that injects a water slurry of trona tailings through a well directly into a low lying part of the mined out portion of the underground mine. Control of the tailings underground will be primarily by gravity, and gravity flow will be utilized to allow the tailings to fill the low lying area of the underground mine. Entry into this area by personnel underground is presently prevented by a series of bulkheads that seal off this section of the mine. Excess water will be decanted from this operation through a second well that will reclaim high TDS water of low TSS for re-use in the milling operations. This water will be cycled back through the existing evaporation ponds and then through existing tailings decant lines.

The tailings that are to be injected consist of shale breaks from within the ore itself suspended in a saturated or nearly saturated solution of sodium carbonate in water. The shale breaks themselves may contain low grade oil shale. As of the writing of this permit, mine wastes are exempt from regulation as hazardous waste by EPA.

It is recognized that more than one injection well may be needed in the future, and that eventually wells may be abandoned and replaced with new wells in different locations. For this reason, this permit will allow up to five (5) injection wells and five (5) decant wells to be active at any one time. If it becomes necessary to abandon a well, that fact will not affect the validity of this permit.

The volume to be injected at present was stated as 600 gallons per minute in the permit. It is also recognized that this permit will cover additional stages of the project. For this reason, the permit limit for this injection is 3,000 gallons per minute, or five (5) wells injecting 600 gallons per minute each.

The pressure limitations on this permit are based on the strength of J-55 casing and the anticipated most extreme operating condition. Because it may be necessary to occasionally build some pressure to cause the tailings to move laterally away from the well, the pressure limitation for this permit is 500 psi as measured at the surface and at the wellhead. The surface pressure normally will be at atmospheric pressure or slightly in the vacuum range. Water Quality Division assumes no liability for anything that FMC does, or for any damage to underground structures or for injuries or death that may result if FMC chooses to use elevated pressures for short times. Any injection above atmospheric into an active underground mine may entail some risk to the facilities near the injection site.

The permittee is specifically not authorized under this permit to introduce any waste stream other than the tailings themselves into this system. Specifically prohibited acts include the introduction of any solvent waste as defined by 40 CFR 261.31 through 261.33. No waste from any other source may be introduced on a commercial basis.

Tailings from the plant as it is presently operating or tailings from any tailings cell at the subject operation may be introduced into this system without the necessity of compiling records of the source location for the discharge. Tailings from any future milling operation on the site may be injected under this permit so long as the chemical nature of those tailings are similar to the present tailings.

D. Proper Operation and Maintenance

The permittee is required to conduct the operation in accordance with statements, representations and procedures presented in the complete permit

application and supporting documents, as accepted and approved by the administrator.

The permittee is required at all times to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve permit compliance. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls, including appropriate quality assurance procedures.

The subsurface discharge (injection) authorized by permit shall be consistent with the conditions and content of the permit; 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.

E. Entry and Inspection

The permittee shall allow the administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate rules and regulations of the Department, any substances or parameters at any location.

F. Environmental Monitoring Program for Groundwaters of the State

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall prepare records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation to be retained for a period of at least 3 years after closure of the facility.
3. 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 date(s) analyses were performed;
 - d. Names of individuals who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
4. The prescribed program for this permitted activity is as follows:

Water Quality Division has reviewed the monitoring plans presently being done for the Land Quality Division and for Water Quality Division on other permits. It is Water Quality Divisions position that no additional shallow monitor wells are required for this operation. Nothing in this permit, however, limits either division from requiring additional monitor wells at a later date, if it becomes apparent that additional wells are warranted to monitor this system or any other system on the site.

G. Requirements for Monitoring the Discharge

Discharge (injection) volume and/or pressure shall be controlled and monitored to prevent fracturing of confining strata.

FMC is required to monitor the injection pressure on a continuous basis. This may be accomplished by the installation of a strip chart or circular recorder on the tailings line, either at the mill or at the wellhead. Due to the vacuum pressure at the wellhead, it may be more desirable to install this guage in the mill. If the mill has a computer controller, printouts from this system will meet the requirement to continuously monitor the discharge pressure.

FMC is also required to monitor the discharge volume on a continuous basis. Meter types acceptable for this application include a differential pressure meter, shedding vortex meter or another meter of FMC's choice. WQD accepts no liability for the choice of meter, and FMC must recognize that it may take more than one attempt to obtain a meter that will work in this application. The volume injected is to be recorded on a continuous recording device, either the same device or a separate device as the one recording pressure.

FMC is also required to monitor the volume of water reclaimed on a continuous basis. This volume is to be recorded on a similar device from the one recording volumes injected. The function of all of these devices is to produce a record that can be used in mass balance calculations. At the end of each year of operation, FMC should perform a mass balance calculation showing the total net volume of tailings and water that has been deposited in the mine. This calculation can be done to any closing date that FMC finds convenient, but the same closing date should be used in each

shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in 6. above.
8. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the administrator, it shall promptly submit such facts or information.
9. The permittee shall retain all records concerning the nature and composition of injected fluids until 5 years after completion of any specified plugging and abandonment procedures. The administrator may require the owner/operator to deliver the records to the administrator at the conclusion of the retention period.
10. A subsurface discharge (injection) well may not commence subsurface discharge (injection) until, following public notice and an opportunity for hearing, a groundwater pollution control permit has been issued by the department for the proposed operation, and:
 - a. Well construction is complete and the permittee has submitted notice of completion of construction to the administrator, and
 - b. The administrator has inspected or otherwise reviewed the subsurface discharge (injection) well and finds it in compliance with the conditions of the permit; or the permittee has not received notice from the administrator of intent to inspect or otherwise review the facility within 13 days of the notice of a. above, in which case prior inspection or review is waived, and
 - c. Well mechanical integrity testing has been proven or demonstrated to the satisfaction of the administrator.
11. Annual reports shall be submitted to the administrator within 30 days following the anniversary date of the permit.
12. A comprehensive report for an aborted or curtailed operation authorized by this permit shall be submitted to the administrator within 30 days of complete termination of the injection (discharge) or associated activity, in lieu of an annual report.

J. Permit Actions

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 the permit;

subsequent year's calculation. The results of this calculation shall be included in the annual mining report submitted to the Land Quality Division.

Within 90 days of the construction of this system, an analysis shall be done on the water fraction being injected into the system. This analysis shall include all metals listed on Land Quality Division Guideline 8 for trona in-situ mines. Within 90 days of each five year anniversary of the date of this permit, this analysis shall be repeated.

H. Test Procedures

Test procedures for the determination of water quality parameters and constituents shall be in accord with provisions of Water Quality Rules and Regulations Chapter VIII, Section 7.

I. Records and Reports

1. 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, for a period of at least 3 years from the date of the report or application.
2. The permittee shall give notice to the administrator as soon as possible of any planned physical alterations or additions to the permitted facility.
3. 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.
4. Monitoring results shall be reported at intervals specified in Section C and/or Section G of this permit.
5. 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 14 days following each schedule date.
6. The permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the permittee 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 groundwaters of the state.

A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. This written submission

2. Obtaining a permit by misrepresentation or failure of the discharge well or system.

Each permit is reviewed at least once every 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 is issued.

A permit may be modified in whole or part in order to apply more, or less, stringent standards; or prohibitions for a toxic or other substance present in the permittee's discharge, as may be ordered by the council.

This operation (permit) can be terminated by authority of the administrator for one or more permit violations.

Public notice of the permit review and request for public comment will be made every 10 years by the administrator.

K. Mechanical Integrity

Each discharge well and associated discharge facilities is required to have mechanical integrity which demonstrates the unimpaired condition of the well and facilities. The approved procedures for demonstrating the mechanical integrity for the well and facilities handling the discharge authorized by this permit consist of:

Once every five years, or more often if required by the administrator the injection well or wells covered by this permit shall have the continued mechanical integrity demonstrated. Since this injection will be done without a tubing string, this will require that a temporary, retrievable bridge plug shall be set within 50 feet of the bottom of the casing and the casing shall be pressure tested to 10% more than the maximum pressure reached during the previous year, or a minimum of 200 psi. Before the initial injection is begun, a similar pressure test shall be completed at a pressure of 500 psi.

Abrasion of the well casing may or may not be a significant factor. For this reason, and because it is not possible to project the abrasive qualities of the tailings when acting directly on J-55 casing, a logging program is required. At the time of construction of the first well under this permit, a high sensitivity caliper log shall be run from the bottom of the casing to the top. After nine (9) months of operation this log shall be repeated. If the results of this log show more than 20% reduction in the wall thickness of the casing after nine (9) months of operation, this log shall be repeated every six (6) months thereafter. This caliper log shall be accurate enough to measure changes in average diameter of 1/10th of the wall thickness of the casing. At the conclusion of the test, a report shall be prepared dealing with the results of this logging. This report shall be submitted to Water Quality Division

within 30 days of the nine (9) month anniversary of this permit. Based on the result of this work, Water Quality Division may require that this logging program continue, that it be deleted from the permit, or that additional permit requirements are necessary.

Once, before injection begins, the casing shall be logged using a standard cement bond tool. Before running casing a base lithology log shall be run consisting of a single point resistance, spontaneous potential, and natural gamma curve at a minimum. More advanced electrical logs may be substituted for this requirement at FMC's option. A lithology log shall also be prepared on the cuttings from each well. These logs shall be submitted to Water Quality Division before injection begins. Good cement bond is required from the bottom of the J-55 casing to the top of each well drilled under this permit. At each five year anniversary of each well, the cement bond log shall be repeated and a casing caliper log shall also be run to demonstrate the continued sound condition of each well. These logs shall also be submitted to Water Quality Division.

Anytime FMC becomes aware, by any method whatsoever, that any injection well has lost mechanical integrity (has a hole in the casing), FMC shall immediately shut this well in and report by telephone to Water Quality Division at 777-7781 as well as to the Land Quality Division district office. WQD and LQD will decide jointly with FMC what remedial measures may be required if this should happen.

The operation (discharge) of any well or system will terminate immediately if mechanical integrity of the well or system fails and/or a leak or unauthorized fluid movement occurs. The discharge shall be discontinued until mechanical integrity has been restored and permission to continue the discharge has been obtained from the administrator.

L. Abandonment

The permittee shall notify the administrator at least 180 days before well abandonment. Immediately following the permanent cessation of subsurface discharge or related activity, or where a well has not been completed, the applicant/permittee shall notify the director and follow the procedures prescribed by the director for plugging and abandonment or the discontinuance of related activities:

At the time of final abandonment of any well under this permit, a cast iron bridge plug shall be permanently set 50 feet above the bottom of the J-55 casing. Type H cement shall be placed in the casing by pumping through a tubing string in stages as the tubing is withdrawn. This procedure shall be followed until the entire casing is cemented to the surface. At the surface, the casing shall be cut off 5 feet below grade and the surface reclaimed in accordance with applicable provisions of the permit to mine.

M. Duties of the Permittee

It is a duty of the permittee to:

1. Comply with all permit conditions;
2. Halt or reduce activity -- it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the permit conditions;
3. Take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit;
4. Furnish to 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; and furnish to the administrator, upon request, copies of records required to be kept by this permit.

N. Financial Responsibility

The permittee is required to maintain financial responsibility and resources in form approved by the director, to close, plug and abandon the discharge operation in a manner prescribed by the director.

FMC has included the abandonment cost for all wells in the bond calculation under its LQD permit to mine. Under this provision, these costs will automatically be updated each year if more wells are drilled or if other changes are made that significantly alter the cost of reclamation. For this reason, WQD does not consider additional financial responsibility documentation to be necessary.

O. Special Measures the Director Finds Necessary:

The discharge pipeline from the mill to the injection well will operate under a static head determined by the elevation of the wellhead and the elevation of the mill. An alarm shall be placed on this discharge line that will alert mill personnel any time the pressure falls to more than 10% less than the pressure required to overcome this static load. Such a condition is indicative of a breached pipeline on the surface.

P. Special Permit Conditions:

Pollution or waste which migrates into an aquifer containing a usable groundwater of the state is a violation of the permit.

Mechanical integrity -- operations terminate immediately if mechanical integrity of well or system fails and/or a leak or unauthorized fluid movement occurs.

Q. Signatories Requirement

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 described 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 an authorized representative.

Any person signing a report or other requested information shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

R. Noncompliance

Any permit noncompliance constitutes a violation of the permit.

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

S. Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the department director.

T. Responsibilities

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.

U. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

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.

PERMIT TO CONSTRUCT

- [] New Permit No. 88-412R
[] Renewal
[X] Modified

"A" Street Sewer Replacement
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Town of Pinedale

P.O. Box 709

Pinedale, WY 82941

to construct, install, or modify a replace an 8" VCP sewer with a new 6" PVC sewer in "A" Street facility according to the procedures and conditions of the application No. 88-412R. The facility is located in Sec. 3, T33N, R109W in the County of Sublette, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

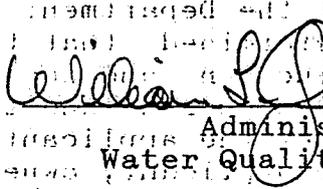
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

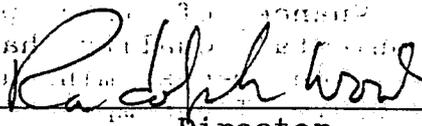
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

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 issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


WILLIAM L. GARLAND
Administrator, #1479
Water Quality Division
REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING


Director
Dept. of Environmental Quality

10-13-88

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

PERMIT TO CONSTRUCT

PERMIT NO. 88-413
SEE SPECIAL CONDITIONS

- X New
- Renewal
- Modified

PARKER DRILLING MONITOR WELLS

This permit hereby authorizes the applicant:

Parker Drilling
P O Box 1030
Mills, Wyoming 82644

to construct, install or modify monitor wells according to the procedures and conditions of the application number 88-413. The facility is located in Section 32, T34N, R80W, SE in the county of Natrona, in the State of Wyoming. This permit shall be effective for a period of five (5) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

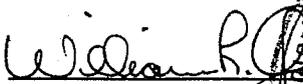
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

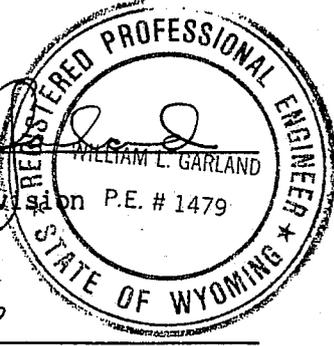
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer,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

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 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.

AUTHORIZED BY:


Administrator
Water Quality Division P.E. # 1479




Director
Department of Environmental Quality

10-3-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Special Conditions for Permit to Construct 88-413

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-413. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
5. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be

addressed when the wells are installed:

- a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is required.
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. DEQ/WQD personnel shall be given at least two days notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
8. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
- a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;
 - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - e. Water level and product thickness measurements;

Conditions to Permit 88-413 (continued)

- f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
 10. All monitor wells associated with this facility shall be sampled and the wastewater analyzed by EPA Methods 601, 602, and 610 until other monitoring operations are allowed by the DEQ/WQD. Product too thin to measure shall be noted and reported (i.e., film, sheen, odor, iridescence, etc.). When measureable product layers exist, they are to be measured and the above parameters need not be sampled for. Based on the results of the above tests, the Water Quality Division may require additional samples to be taken and analyzed.
 11. Up to 50 wells of like construction may be constructed under this same permit during the time limits of this permit and within the same legal description of this permit.
 12. The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.

cc: Jake Strohman, DEQ/WQD

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-414

X New
Renewal
Modified

27th Street Fire Main Upgrade

This permit hereby authorizes the applicant:

Cheyenne BOPU
2100 Pioneer Avenue
Cheyenne, WY 82001

to construct, install or modify public water distribution system according to the procedures and conditions of the application number 88-414. The facility is located in S36, T14N, R67W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

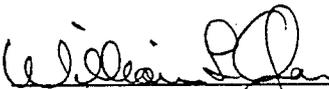
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

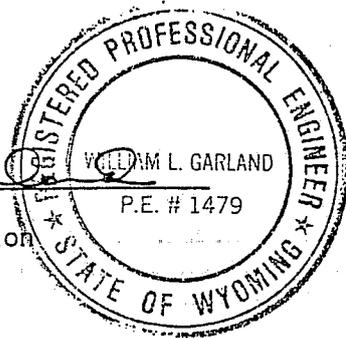
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

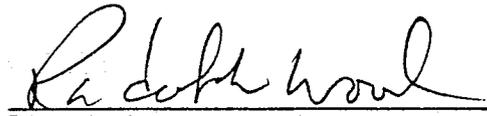
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:


Administrator
Water Quality Division




Director
Department of Environmental Quality

10-13-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

cc: Donald C. Kramer, Eagle Consultants, Inc.,
2811 Central Ave., Cheyenne, WY 82001

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-415

- X New
- Renewal
- Modified

Conners Avenue Extension

This permit hereby authorizes the applicant:

John Johnson
1618 Conners Avenue
Laramie, WY 82070

to construct, install or modify public water distribution system and public wastewater collection system according to the procedures and conditions of the application number 88-415. The facility is located in S6, T15N, R73W in the county of Albany, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

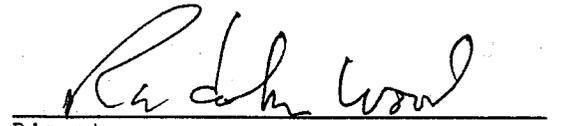
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

11-2-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

PERMIT TO CONSTRUCT

PERMIT NO. 88-416
SEE SPECIAL CONDITIONS

X New *CORRECTED*
Renewal
Modified

Home Petroleum Corporation

This permit hereby authorizes the applicant:

Home Petroleum Corporation
1225 Seventeenth Street, Suite 3100
Denver, Colorado 80202-5589

to construct, install or modify six deep ground bed anode systems according to the procedures and conditions of the application number 88-416. The facility is located in Section 27, 28, and 34, T24N, R97W, Section 19, T23N, R96W, Section 34, T20N, R93W, Section 24, T23N, R97W in the county of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

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 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

11-7-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

STANDARD CONDITIONS FOR GROUND BED FACILITIES

1. The cathodic protection deep anode ground bed well shall be installed in accordance with the conditions of this permit and plans and specifications submitted in permit to construct application number 88-416.
2. After the deep anode ground bed well has fulfilled its useful purpose, it shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after the well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.
3. In addition to the anode bed construction information submitted with the permit application, the following items relating to well construction must be addressed when the well is installed:
 - a. Bentonite seal from surface to 2 (two) feet in depth in the annulus of the hole, or concrete cap around PVC pipe and annulus.
4. Within 30 days after the well has been installed, the following information needs to be submitted to the Wyoming Department of Environmental Quality:
 - a. Analysis of the coke breeze that is used in the ground bed.
 - b. Analysis of the water used in wetting the anode. Analyze for TDS, ph & chlorides.
5. This permit only applies to the following facilities:
 - 1) Hay Reservoir #41, 2) Hay Reservoir Unit #11, 3) Great Divide Unit #7, 4) Hay Reservoir Unit #6, 5) Janet Federal #1, 6) C.A.T. Federal #1

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-416
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Home Petroleum Corporation

This permit hereby authorizes the applicant:

Home Petroleum Corporation
1225 Seventeenth Street, Suite 3100
Denver, Colorado 80202-5589

to construct, install or modify six deep ground bed anode systems according to the procedures and conditions of the application number 88-416. The facilities are located in Section 27, 28, and 34, T24N, R97W, Section 19, T23N, R96W, Section 34, T20N, R93W, Section 24, T23N, R97W in the county of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

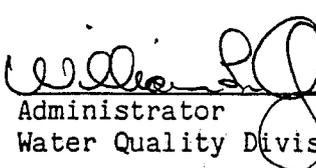
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

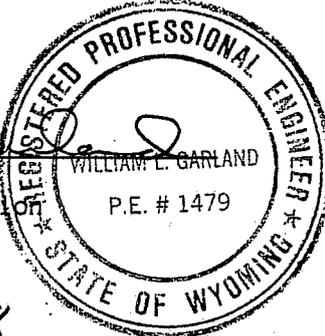
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer,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

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 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.

AUTHORIZED BY:


Administrator
Water Quality Division



REGISTERED PROFESSIONAL ENGINEER
WILLIAM L. GARLAND
P.E. # 1479
STATE OF WYOMING


Director
Department of Environmental Quality

10-18-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

STANDARD CONDITIONS FOR GROUND BED FACILITIES

1. The cathodic protection deep anode ground bed well shall be installed in accordance with the conditions of this permit and plans and specifications submitted in permit to construct application number 88-416.
2. After the deep anode ground bed well has fulfilled its useful purpose, it shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after the well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.
3. In addition to the anode bed construction information submitted with the permit application, the following items relating to well construction must be addressed when the well is installed:
 - a. Bentonite seal from surface to 2 (two) feet in depth in the annulus of the hole, or concrete cap around PVC pipe and annulus.
4. Within 30 days after the well has been installed, the following information needs to be submitted to the Wyoming Department of Environmental Quality:
 - a. Analysis of the coke breeze that is used in the ground bed.
 - b. Analysis of the water used in wetting the anode. Analyze for TDS, ph & chlorides.
5. This permit only applies to the following facilities:
 - 1) Hay Reservoir #1, 2) Hay Reservoir Unit #11, 3) Great Divide Unit #7, 4) Hay Reservoir Unit #6, 5) Janet Federal #1, 6) C.A.T. Federal #1.

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-417
SEE SPECIAL CONDITIONS

- X New
- Renewal
- Modified

168 NORTH THIRD STREET TEXACO

This permit hereby authorizes the applicant:

Agent for: Texaco Refining and Marketing, Inc.
Delta Environmental Consultants, Inc.
2637 Midpoint Drive, Suite F
Fort Collins, Colorado 80525

to construct, install or modify groundwater monitoring wells according to the procedures and conditions of the application number 88-417. The facility is located in Section 33, T15N, R73W, SWNW $\frac{1}{4}$ in the county of Albany, in the State of Wyoming. This permit shall be effective for a period of two (2) (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

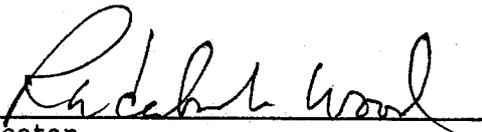
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

11-2-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions for Permit to Construct 88-417

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-417. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
5. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.

Conditions to Permit 88-417 (continued)

6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
 - a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is strongly recommended;
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
8. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
 - a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;
 - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;

Conditions to Permit 88-417 (continued)

- e. Water level and product thickness measurements;
 - f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
10. All monitor wells associated with this facility shall be sampled and the wastewater analyzed for the parameters listed below:

BETX, TPH

The results of these analyses shall be submitted to the Cheyenne office in the report due in 90 days. Depending on the results of these analyses, additional sampling and analysis may be required by the Water Quality Division. A sampling schedule will be developed at that time.

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

cc: Dave Cleveland, 4601 DTC Blvd., Denver, CO 80237
Jake Strohmman

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-418
See Conditions

- New
- Renewal
- Modified

Rock Springs AML6A-IV Monitoring Wells

This permit hereby authorizes the applicant:

Wyoming DEQ, Land Quality Division

to construct, install or modify monitoring wells according to the procedures and conditions of the application number 88-418. The facility is located in S3, T18N, R105W, S26, T19N, R105W, S35, T19N, R105W in the county of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

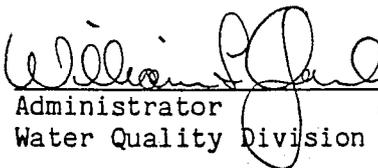
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

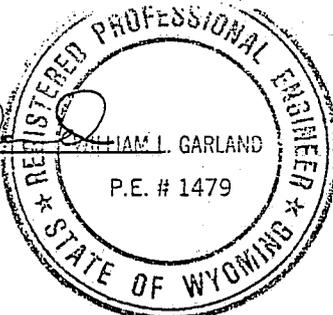
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

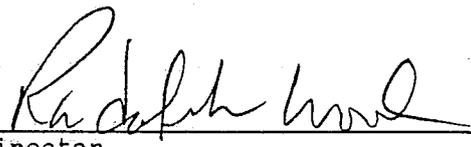
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:


Administrator
Water Quality Division




Director
Department of Environmental Quality

10-13-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #88-418

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-418. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
5. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be

Conditions to Permit 88-418 (continued)

addressed when the wells are installed:

- a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is required;
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. To prevent cross contamination of the boreholes, all equipment used in the drilling and soil sampling process including auger flights, drill pipe/stem, drill bits and splitspoons shall be decontaminated by means of a high pressure steam or approved equal method prior to drilling each borehole.
 8. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
 9. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
 - a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;

Conditions to Permit 88-418 (continued)

- * d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - e. Water level and product thickness measurements;
 - f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
10. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
11. The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.

cc: Jake Strohman

Keith Thompson, Western Water Consultants Inc, 611 Skyline Road
Laramie, WY 82070

RF

PERMIT TO CONSTRUCT

New

Permit No. 88-419RRR

Renewal

Modified

Lewis and Lewis Small Wastewater Facility
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Lewis & Lewis, Inc.

730 Blairtown

Rock Springs, WY 82901

to construct, install, or modify a septic tank - Evaporative pond - shop sump and holding tank facility according to the procedures and conditions of the application No. 88-419RRR. The facility is located in Sec. 7, T18N R105W (South 1/2) in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of

its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

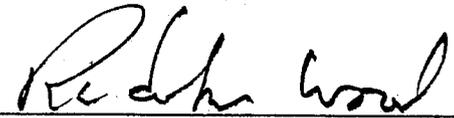
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

11-2-88

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

copy R.F.

PERMIT TO CONSTRUCT

[X] New

Permit No. 88-420R

[] Renewal

[] Modified

Fossil Butte National Visitor Center
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Dave McGinnis

National Park Service

P.O. Box 527

Kemmerer, WY 83101

to construct, install, or modify a small (less than 2000 gpd)
septic system facility according to the procedures and condi-
tions of the application No. 88-420R. The facility is located in

SW 1/4, Section 36, T21N, R118W in the County of Lincoln, in
the State of Wyoming.

This permit shall be effective for a
period of two (2) years (five (5) years maximum) from the date of
issuance of this permit.

The issuance of this permit provides that the Department of
Environmental Quality has evaluated and determined that the
application meets minimum applicable construction and design
standards. The compliance with construction standards and the
operation and maintenance of the facility to meet the applicant's
engineer's design are the responsibility of the applicant, owner,
or operator.

The authority to construct granted by this permit does not mean
or imply that the Wyoming Department of Environmental Quality
guarantees or insures that the permitted facility, when con-
structed, will meet applicable discharge permit conditions or
other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the
construction or the design of the facility described herein.
This permit indicates only that standards of design and construc-
tion required by the Environmental Quality Act have been met.

Wanna →

22N

SE 1/4 section 35, T 22N, R 118

8/10/02
CORRECTED
on database

The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

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 issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

William J. ...
Administrator
Water Quality Division

A. Alan Edwards
Director
Dept. of Environmental Quality

June 2, 1989
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

RF

PERMIT TO CONSTRUCT

New

Permit No. 88-420R

Renewal

Modified

Fossil Butte National Visitor Center
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Dave McGinnis

P.O. Box 527

Kemmerer, WY 83101

to construct, install, or modify a small (less than 2000 gpd) septic system facility according to the procedures and conditions of the application No. 88-420R. The facility is located in SW 1/4, Section 36, T21N, R118W in the County of Lincoln, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met.

The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

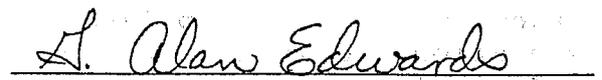
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

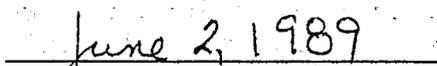
AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

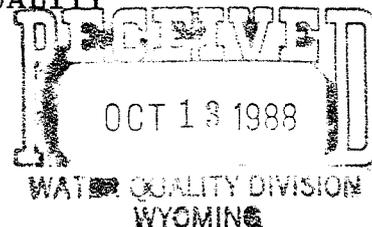


Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
210 LINCOLN
LANDER, WYOMING 82520
PHONE : (307)332-3144



PROJECT: Fossil Butte National Visitor Center
ENGINEER: John L. Wendleton, P.E.
National Park Service, Denver Service
Center
12795 Alameda Pkwy.
Lakewood, CO 80228
OWNER: National Park Service

WATER QUALITY DIVISION REFERENCE NUMBER: 88-420

REVIEWING ENGINEER: Sterling Roberts *SR*

DATE OF REVIEW: October 7, 1988

ACTION: Not authorized

COMMENTS:

An initial review of your plans and specifications, received on October 3, 1988, has been completed. The following items need to be addressed and/or resolved.

1. Soil exploration to a minimum depth of four feet below the bottom of the proposed adsorption system is required. Since the proposed adsorption system appears to extend to a depth of about three feet, soil exploration should be made to a depth of approximately seven feet.
2. Appendix A of Part D Chapter XI DEQ Water Quality Rules and Regulations states "If only three to five percolation tests are performed, the design percolation rate for the absorption system is the slowest rate for all the holes tested". In this case the design percolation would be 0.07 in/min or 14 min/in. However if six or more percolation test are performed, the design percolation rate for the absorption system is the average of all the holes tested.
3. The depth to bedrock and depth to groundwater (if any) needs to be provided for the vicinity of the absorption

Review of Plans & Specs.
Fossil Butte Nat'l Visitors Ctr.
October 7, 1988

system. If groundwater is present, seasonal fluctuations should be noted.

4. An estimate of the maximum height of the groundwater mound, which results from the absorption system, needs to be estimated by the design engineer.
5. Due to the 60 ± degree bend in the building sewer pipe, located about 25 feet upgradient from the septic tank, a cleanout will be required at this location.
6. An area needs to be designated and shown on the plans for future installation of a replacement absorption system. If a trench system is used, the replacement area may include the area between trenches if sufficient spacing has been provided.
7. All surface runoff needs to be diverted around or away from the absorption system.

Please resubmit the required information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. Should you have any questions or comments, please contact this office.

PERMIT TO CONSTRUCT

PERMIT NO. 88-421
See Conditions

- New
- Renewal
- Modified

Filter Backwash Pond: Christensen Ranch ISL

This permit hereby authorizes the applicant:

Malapai Resources
P O Box 9950
Casper, WY 82609

to construct, install or modify lined pond according to the procedures and conditions of the application number 88-421. The facility is located in S7. T44N, R76W in the county of Johnson, in the State of Wyoming. This permit shall be effective for a period of five (5) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

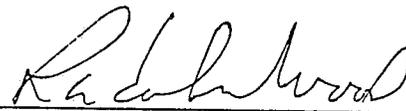
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

10-20-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #88-421

1. Leak detection piping shall be schedule 40 PVC or better, in the sizes shown on the plans.
2. The top 24" of subgrade material on all ponds constructed under this permit shall be compacted so that its total permeability is at least 100 times less than the sand blanket of the leak detection system. Compaction shall be at least 95% of Proctor Standard density for the 24" immediately under the leak detection system. The clay in this 24" layer shall be placed in 6" lifts as per the application.
3. Sand for the leak detection system shall contain no more than 5% passing 200 mesh and shall contain nothing larger than $\frac{1}{2}$ inch.
4. Should a leak be detected in the pond liner, the pond shall be pumped out to the extent necessary to fully expose the defect and repair the leak. Any water in the leak detection system shall, to the extent possible, be pumped out. All water from this pond shall be pumped to the Brine Disposal Pond if it is necessary to empty the pond.
5. Should a leak be detected a sample should be taken as soon as practical of the water in the leak detection system. If NRC requires a pre-operational check of the leak detection system, this may leave as much as 12 inches of water in the system that cannot be recovered. If this is in fact the case, then the first samples shall be taken when there is 18 inches of water in the leak detection system.
6. The leak detection piping shall be laid to true line and grade so that as little water as possible will be unrecoverable in the leak detection piping.
7. Should any leak be detected a report shall be made within 24 hrs of discovery to the Water Quality Division district office in Sheridan, Wyoming followed by

Conditions to Permit 88-421 (continued)

a written confirmation within seven days.

8. Liner material shall consist of 26 mil reinforced mypalon (TM) membrane liner.
9. Malapai Resources has shown that 24" freeboard is sufficient due to this pond being located directly down hill from the permeate storage pond. Malapai shall take whatever steps are necessary to prevent overtopping of this structure during runoff events.
10. In the event that the leak detection should contain water permanently due to infiltration from the soil, Malapai shall sample this water every seven days and analyze for chloride, conductivity, pH, and uranium.

cc: Jake Strohman

PERMIT TO CONSTRUCT

New

Permit No. 88-422

Renewal

Modified

Shoshone Municipal Raw Water Supply Pipeline
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Shoshone Municipal Water Supply JPB

1338 Rumsey Ave

Cody, WY 82414

to construct a raw water pipeline from Buffalo Bill Reservoir facility according to the procedures and conditions of the application No. 88-422. The facility is located in T52N, R102W in the County of Park, in the State of Wyoming. This permit shall be effective for a period of three (3) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of

its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

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 issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED, BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

11-9-88

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 88-423
Conditioned

Girard and Company LUST Monitor Wells
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Ms. Nettabell Girard

P.O. Box 687

Riverton, WY 82501

to install a series of monitor wells to determine extent of contamination according to the procedures and conditions of the application No. 88-423. The facility is located in Sec. 27, T1N, R4E in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of One (1) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only hat standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

Permit # 88-423
Girard & Company

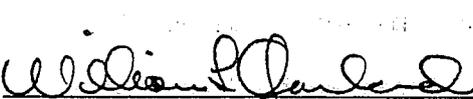
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

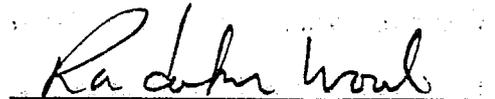
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

10-28-88
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

Conditions for Permit #88-423

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-423. Additional wells meeting the requirements of the application this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
3. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
4. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
5. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
 - a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - d. To minimize the entrance of fine grained material into the well the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - e. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;

6. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
7. Within 60 days of installing the wells, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
 - a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;
 - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - e. Water level and product thickness measurements;
 - f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
8. All monitor wells associated with this facility shall be sampled and the wastewater analyzed quarterly for the parameters listed below:
Benzene, ethylbenzene, toluene, xylene and TPH according to method 418.1.

The results of these analyses shall be submitted to the Lander office by the last day of the month following the end of each quarter.
9. The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.

PERMIT TRANSFER REQUEST

DATE: October 30, 1992

Water Quality Division
Department of Environmental Quality
122 West 25th Street
Herschler Building
Cheyenne, WY 82002

RECEIVED

NOV 30 1992

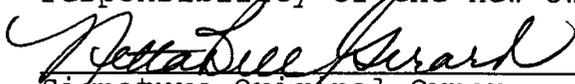
To Whom It Concerns:

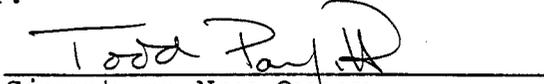
WATER QUALITY DIVISION
WYOMING

Ms. Nettabell Girard intends to transfer ownership of the facility associated with Permit Number 88-423, including MW-1 and MW-3 but to exclude the transfer of ownership of monitor wells MW-2 and MW-4, to WY Department of Environmental Quality on December 4, 1992. It is requested that the said permit be transferred to the new owner in accordance with Section 10 (c) and (d) of Chapter III, Wyoming Water Quality Rules and Regulations. With the exception of monitor wells MW-2 and MW-4, the new owner agrees to accept and be bound by the provisions of the permit and any amendments, agrees to construct and operate the facility in accordance with the approved permit and agrees to accept responsibility for the facility's compliance with applicable standards and permit conditions, including the responsibility to perform any necessary corrective actions.

The original owner shall retain the responsibility for and make the necessary arrangements for the proper abandonment of the monitor wells MW-2 and MW-4. In addition, the original owner shall retain responsibility for the facility according to the terms of the original permit until the application for permit transfer is approved by the Administrator.

Please transfer the permit to the transferee's name and issue a modified permit reflecting the transfer of ownership. Terms and conditions of the original permit, excluding any responsibility for monitor wells MW-2 and MW-4, are transferred to and become the responsibility of the new owner.


Signature Original Owner


Signature New Owner

Name Ms. Nettabell Girard

Name WY Dept. of Environmental Quality

Address P. O. Box 687

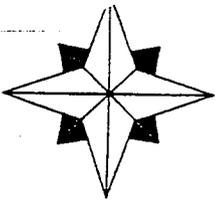
Address 250 Lincoln Street

Riverton, WY 82501

Lander, WY 82520

Telephone 307-856-9339

Telephone 307 - 332 - 3144



Cardinal Design Group

CONSULTING ENGINEERS

88-423

NOV 23 1992
STATE ENGINEER'S OFFICE
HERSCHLER BUILDING
CHEYENNE WY 82002

November 23, 1992

State Engineer's Office
Herschler Building
Cheyenne WY 82002

RE: UW 78,211 & UW 81,739

Gentlemen,

The subject monitoring wells located on the Girard & Company property in Riverton have be removed from service.

The wells were sealed with portland cement grout for their entire depth on 11-22-92. In the case of MW #2, UW 78,211, the surface casing was cut into sectors and crushed down into the fresh grout about 0.5 feet below the ground surface. In the case of MW #4, UW 81,739, the steel surface collar was completely filled with grout at the ground surface.

Sincerely yours,

Jerald B. Crews, P.E.,
Project Engineer

copies:

NettaBell Girard
Steve Gerber, DEQ Lander
Harry LaBonde, City Engineer,
Wyoming Transportation Dept, Basin

RECEIVED

DEC 07 1992

WATER QUALITY DIVISION
WYOMING

To: Patty Burns 12/1/92
From: Todd Parfitt

This letter is in reference to
well permit # 88-423
They have abandoned mw-2 & mw-4
mw-1 and mw-3 were transferred to
DEQ/WQD.

PERMIT TO CONSTRUCT

New

Permit No. 88-424R

Renewal

Modified

Green River Water Distribution Improvements
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

City of Green River

50 East 2nd North

Green River, WY 82935

to construct, install, or modify a 500 LF of 8" diameter PVC and pressure regulating station facility according to the procedures and conditions of the application No. 88-424R. The facility is located in NW 1/4 Sec. 35, T17N, R107W in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met.

The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

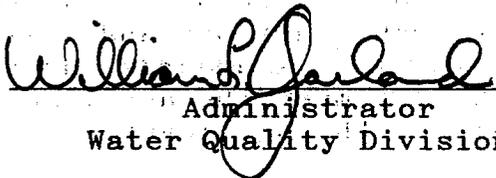
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

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 issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

10-20-88

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-425

X New
Renewal
Modified

SOUTH GARDEN CREEK ACRES WATER LINE IMPROVEMENTS

This permit hereby authorizes the applicant:

South Garden Creek Acres Improvement & Sewer District
6950 So. Poplar Street
Casper, Wyoming 82601

to construct, install or modify a municipal water distribution system according to the procedures and conditions of the application number 88-425. The facility is located in S29 & 32, T33N, R79W in the county of Natrona, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

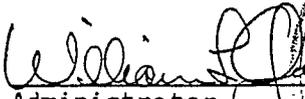
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

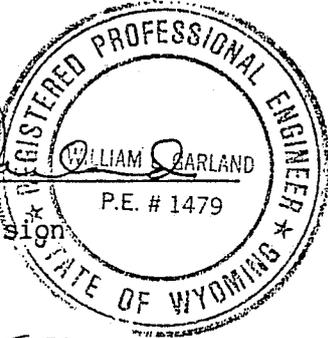
Nothing in this permit shall be construed to preclude the institution of any legal

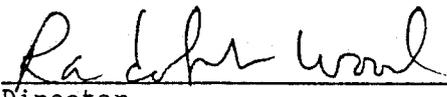
action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:


Administrator
Water Quality Division




Director
Department of Environmental Quality

10-13-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

cc: Casper Board of Public Utilities

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 88-426
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Wamsutter Deep Bed Anodes

This permit hereby authorizes the applicant:

Amoco Production Co.
P O Box 800
Denver, CO 80201

to construct, install or modify deep bed anode cathodic protection according to the procedures and conditions of the application number 88-426. The facility is located in T16-22N, R93-101W in the county of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of five years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

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 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

11-2-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

CONDITIONS TO PERMIT TO CONSTRUCT 88-426

1. The cathodic protection deep anode ground bed well shall be installed in accordance with the conditions of this permit and plans and specifications submitted in permit to construct application number 88-426.
2. After the deep anode ground bed well has fulfilled its useful purpose, it shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after the well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.
3. In addition to the anode bed construction information submitted with the permit application, the following items relating to well construction must be addressed when the well is installed:
 - a. Bentonite grout seal installed to a depth just above coke breeze.
 - b. The coke breeze backfill has a total organic content no greater than 0.2 percent.
 - c. All aquifers encountered while drilling shall be isolated with polymer mud to prevent co-mingling of different aquifers or each aquifer shall be isolated, sampled and analyzed for all parameters contained in Table I of Chapter VIII of Wyoming Water Quality Rules and Regulations. If aquifers are of the same class of use as determined by the Department of Environmental Quality, intermingling may be allowed.
4. Within 45 days after the well has been installed, as-built construction plans need to be submitted to the Wyoming Department of Environmental Quality, Water Quality Division, detailing that the groundwater was protected during construction.

Conditions to Permit 88-426 (continued)

5. Up to 50 similar anodes may be installed during the term of this permit and in the two townships covered by this permit. All installations to have similar construction specifications.
6. All construction procedures outlined in "Attachment 7" as provided by Melanie Rigg shall be followed as well as requirements outlined in Ms. Rigg's letter of October 7, 1988 (attached).

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-427
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Moxa Arch Deep Bed Anodes

This permit hereby authorizes the applicant:

Amoco Production
P O Box 800
Denver, CO 80201

to construct, install or modify deep bed anode cathodic protection according to the procedures and conditions of the application number 88-427. The facility is located in T18-24N, R112-113W in the county of Lincoln, in the State of Wyoming. This permit shall be effective for a period of five years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

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 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.

AUTHORIZED BY:


Administrator
Water Quality Division


Director
Department of Environmental Quality

11-2-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

CONDITIONS TO PERMIT TO CONSTRUCT 88-427

1. The cathodic protection deep anode ground bed well shall be installed in accordance with the conditions of this permit and plans and specifications submitted in permit to construct application number 88-427.
2. After the deep anode ground bed well has fulfilled its useful purpose, it shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after the well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.
3. In addition to the anode bed construction information submitted with the permit application, the following items relating to well construction must be addressed when the well is installed:
 - a. Bentonite grout seal installed to a depth just above coke breeze.
 - b. The coke breeze backfill has a total organic content no greater than 0.2 percent.
 - c. All aquifers encountered while drilling shall be isolated with polymer mud to prevent co-mingling of different aquifers or each aquifer shall be isolated, sampled and analyzed for all parameters contained in Table I of Chapter VIII of Wyoming Water Quality Rules and Regulations. If aquifers are of the same class of use as determined by the Department of Environmental Quality, intermingling may be allowed.
4. Within 45 days after the well has been installed, as-built construction plans need to be submitted to the Wyoming Department of Environmental Quality, Water Quality Division, detailing that the groundwater was protected during construction.

Conditions to Permit 88-427 (continued)

Up to 50 similar anodes may be installed during the term of this permit and in the two townships covered by this permit. All installations to have similar construction specifications.

6. Construction procedures outlined in "Attachment 7" shall be followed. Additional requirements as outlined in Melanie Rigg's letter of October 7, 1988 shall be followed. Both of these documents are attached.

THE STATE



OF WYOMING

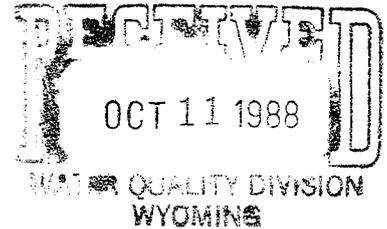


Department of Environmental Quality

Air Quality Division
(307) 672-6457

Water Quality Division
(307) 672-6457

October 7, 1988



Mr. Don Lange
Texaco, Inc.
P. O. Box 551
Powell, Wyoming 82435

Dear Don:

As per your request, I am returning your application to apply waste oil to roads in Crook County and withdrawing the permit application. The permit will not be issued as the work could not be conducted before November 15, 1988. You may reapply in the Spring of next year for a permit that would allow intermittent oil application throughout the summer months.

Please call if you have questions

Sincerely,

A handwritten signature in cursive script that reads "Susan Fields".

Susan Fields
NE District Supervisor
Water Quality Division

SF:jj

xc: Norma Coulson, DEQ/WQD, Cheyenne
Review File: 88-429



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR



Department of Environmental Quality

Administration
(307) 777-7937

Air Quality Division
(307) 777-7391

Land Quality Division
(307) 777-7756

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781

January 9, 1989

Mr. Donald L. Boyer
Administrator
Wyoming Board of Charities & Reform
Herschler Building, 1st Floor, West Wing
Cheyenne, Wyoming 82002

Dear Mr. Boyer:

Enclosed is Permit to Construct 88-43ORRR for the water and wastewater facilities at the proposed Wyoming Honor Conservation Camp outside of Newcastle, Wyoming.

As you are aware, there has been considerable concern expressed by the Water Quality Division of DEQ regarding the long term operability of the proposed septic tanks and leach fields. It is felt that the most recent revisions to the plans have provided a system that meets the minimum design standards of the Water Quality Rules and Regulations.

It is the belief of the engineers reviewing this project, however, that the wastewater system will fail. The nature of the sidehill leach field installation, the large design flows and the uncertain geotechnical characteristics of the area do not lend themselves to a system that will function effectively over time. Unfortunately no accurate estimate of the life of the facility can be made with the limited subsurface information provided. It is felt, however, based on experience and engineering judgement, that the designed wastewater facilities are not a preferred treatment alternative and may fail before the camp as a whole is abandoned.

Sincerely,

William L. Garland
Administrator
Water Quality Division

WLG/SF:jj

xc: Harry Wade, Wyoming Board of Charities & Reform
Susan Fields, DEQ/WQD, Sheridan
Archives File 88-43ORRR

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

PERMIT NO. 88-43ORRR

WYOMING HONOR CONSERVATION CAMP
WATER & WASTEWATER FACILITIES
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Wyoming Board of Charities and Reform
Herschler Building, 1st Floor, West Wing
Cheyenne, Wyoming 82002

to construct, install or modify water and wastewater facilities according to the procedures and conditions of the application No. 88-43ORRR. The facilities are located in Section 16, T.45N., R.61W., in the County of Weston, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division, the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 501, Sheridan, Wyoming 82801; telephone, 672-6457.

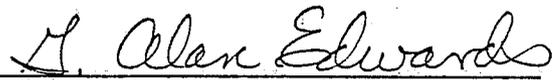
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations,

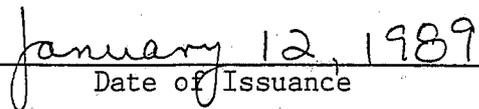
AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality



Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

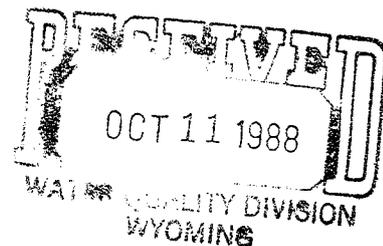
xc: Harry Wade
Construction Administrator
Board of Charities & Reform
Herschler Building, 1st Floor, West Wing
Cheyenne, Wyoming 82002

Jim Fletcher
High Plains of Wyoming
P. O. Box 727
Newcastle, Wyoming 82701

norma

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
2161 Coffeen Avenue, Suite 501
Sheridan, Wyoming 82801



PROJECT: Wyoming Board of Charities and Reform
Honor Farm (Newcastle Unit)
Water and Wastewater Facilities

ARCHITECT OR ENGINEER: Jim Fletcher
High Plains of Wyoming
P. O. Box 272
Newcastle, Wyoming 82701

WATER QUALITY DIVISION
REFERENCE NUMBER: 88-430

REVIEWING ENGINEER: *SA* Susan Fields

DATE OF REVIEW: October 7, 1988

ACTION: Not Authorized

COMMENTS:

1. The permit application form was not submitted with the package. A completed form, signed by the applicant, must be submitted before the project can be authorized.

WATER SYSTEM

1. An engineering design report must be submitted. The report shall contain at a minimum:
 - a. design flows;
 - b. hydraulic analysis, including basis of pump design.
2. A letter from the City of Newcastle stating that they can and will provide water to the facility should be submitted.
3. Is the system designed to provide fire protection? If so, these values should be incorporated into the hydraulic analysis.
4. I would recommend a hydrant on the eastern side of the loop to provide better flushing capabilities.
5. Backflow prevention is required at the connection to the City main. I would recommend these facilities be installed in the meter vault.
6. The pump house should be heated and ventilated.

7. The pump station should be equipped with two pumps to provide backup capabilities.
8. The typical water service detail shown on Sheet 6/6 does not correspond to the detail shown in the specifications.
9. I assume the meter manhole will be installed under this contract, yet no detail is shown on the plans.

SEWER SYSTEM

1. An engineering design report is required. The report shall include at a minimum:
 - a. design flows for leach field, septic tank and collection piping sizing;
 - b. percolation rate test locations, methodology and data.

A complete review of the wastewater facilities can not be conducted until this information is provided.
2. Information on depth to seasonally high groundwater and bedrock must be submitted. The effects of groundwater mounding should be considered in leach field design.
3. A grease trap should be provided for the mess hall.
4. Since it appears that three percolation tests were run for the mobile home site, the slowest of the three should be used for design, not the average.
5. The dimensions of the septic tanks should be shown on the plans. Will these be precast or cast-in-place?
6. All water main crossings should be shown on the sewer profile. It appears there will be many conflicts at crossings. Will the water be taken over or under the sewer to maintain 18 inches of clearance?
7. How is the connection of Lines C and D made to the 1,620 gallon septic tank? No detail is provided and the plan view appears to conflict with the profile.
8. The invert elevations shown on Lines C and D profiles do not correspond to the labeling provided on the elevation axis.
9. The typical mobile home layout on Sheet 6/6 does not match the configuration of the homes as shown on Sheet 5/6.

Review of Plans & Specifications - 88-430
Wyoming Board of Charities & Reform
Newcastle Honor Farm W & WW Facilities
October 7, 1988
Page Three

10. A clean-out is specified at Station 0+00 on the Main Line, but no detail is provided.
11. What is the purpose of the diverter box? There is no way to control or to ensure an even split of flow. Why was not a single large system designed with septic tanks in series? The diverter structure would be a lot more effective if placed after the septic tanks.
12. Why are Leach Fields 1, 2 and 3 designed with 17, 17 and 12 leach lines each? As a minimum, the fields should all have the same amount of leach line as no flow control is provided.
13. As we discussed previously, I question the suitability of this site for septic tank and leach field disposal of wastewater. I am curious if other alternatives were considered.

PERMIT TO CONSTRUCT

PERMIT NO. 88-431
SEE SPECIAL CONDITIONS

- X New
- Renewal
- Modified

Wojahn Small Septic System

This permit hereby authorizes the applicant:

Herbert R. Wojahn
Box 705
Saratoga, WY 82331

to construct, install or modify small wastewater system according to the procedures and conditions of the application number 88-431. The facility is located in S28, T16N, R81W, SW $\frac{1}{4}$ in the county of Carbon, in the State of Wyoming. This permit shall be effective for a period of two years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

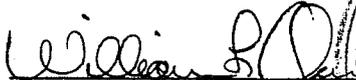
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

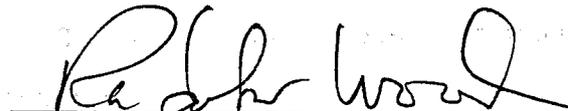
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:


Administrator
Water Quality Division




Director
Department of Environmental Quality

10-14-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

CONDITIONS TO PERMIT TO CONSTRUCT #88-431

The installation and maintenance of the septic tank shall meet the following conditions:

1. Do not install the tank in water-saturated clay or high water table.
2. Do not install the tank under path of vehicles or heavy equipment.
3. Fill the tank with water while backfilling with dirt of equal proportions.
4. If pumping the tank completely empty is required for normal maintenance, the tank must be refilled immediately with water.

PERMIT TO CONSTRUCT

PERMIT NO. 88-432
See Conditions

- X New
- Renewal
- Modified

Delta Airlines Fuel Farm

This permit hereby authorizes the applicant:

Delta Airlines, Inc.
Hartsfield Atlanta International Airport
Atlanta, GA 30320

to construct, install or modify groundwater monitoring wells according to the procedures and conditions of the application number 88-432. The facility is located in S20, T34N, R80W in the county of Natrona, in the State of Wyoming. This permit shall be effective for a period of one (1) year (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

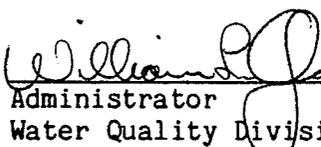
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

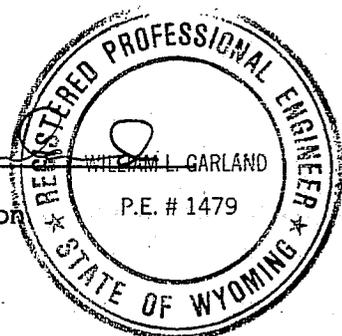
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer,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

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 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.

AUTHORIZED BY:


Administrator
Water Quality Division



WILLIAM L. GARLAND
P.E. # 1479
REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING


Director
Department of Environmental Quality

10-12-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #88-432

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-432. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
5. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be

Conditions to Permit 88-432 (continued)

addressed when the wells are installed:

- a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is strongly recommended;
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. To prevent cross contamination of the boreholes, all equipment used in the drilling and soil sampling process including auger flights, drill pipe/stem, drill bits and splitspoons shall be decontaminated by means of a high pressure steam or approved equal method prior to drilling each borehole.
 8. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
 9. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
 - a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;

Conditions to Permit 88-432 (continued)

- d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - e. Water level and product thickness measurements;
 - f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
10. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.

cc: Jake Strohman
Charlie Porter, SRM

PERMIT TO CONSTRUCT

New

Permit No. 88-433
Conditioned

Renewal

Modified

Riverton Sinclair LUST Monitor Wells
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Al Sammons

P.O. Box 407

Riverton, WY 82501

to install a series of monitor wells to determine extent of contamination according to the procedures and conditions of the application No. 88-433. The facility is located in Sec. 27, T1N, R4E in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of one (1) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

Permit to Construct
88-433
Riverton Sinclair

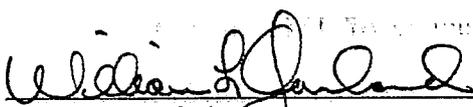
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

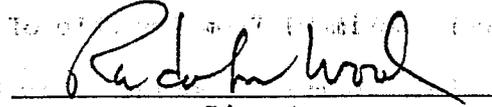
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

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 issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


Administrator
Water Quality Division


Director
Dept. of Environmental Quality

10-28-88
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

Permit to Construct
88-433
Riverton Sinclair

Conditions for Permit #88-433

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-433. Additional wells meeting the requirements of the application this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
3. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
4. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
5. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
 - a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - d. To minimize the entrance of fine grained material into the well the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - e. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;

Permit to Construct
88-433
Riverton Sinclair

6. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
7. Within 60 days of installing the wells, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
 - a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;
 - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - e. Water level and product thickness measurements;
 - f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
8. All monitor wells associated with this facility shall be sampled and the wastewater analyzed quarterly for the parameters listed below: Benzene, ethylbenzene, toluene, xylene, and TPH according to method 418.1.

The results of these analyses shall be submitted to the Lander office by the last day of the month following the end of each quarter. The first set of results are due by the last day of January.

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

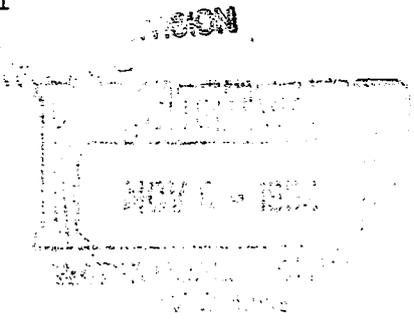
Send to:

IPS, Patti Burns

NOV 09 1992

PERMIT TRANSFER REQUEST

Water Quality Division
Department of Environmental Quality
122 West 25th Street
Herschler Building
Cheyenne, WY 82002

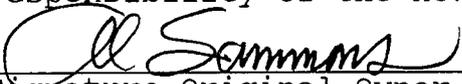


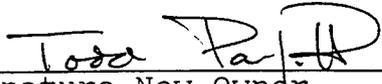
To Whom It Concerns:

Al Sammons intends to transfer ownership of the facility associated with Permit Number 88-433 to WY Department of Environmental Quality on December 4, 1992. It is requested that the said permit be transferred to the new owner in accordance with Section 10 (c) and (d) of Chapter III, Wyoming Water Quality Rules and Regulations. The new owner agrees to accept and be bound by the provisions of the permit and any amendments, agrees to construct and operate the facility in accordance with the approved permit and agrees to accept responsibility for the facility's compliance with applicable standards and permit conditions, including the responsibility to perform any necessary corrective actions.

The original owner shall retain responsibility for the facility according to the terms of the original permit until the application for permit transfer is approved by the Administrator.

Please transfer the permit to the transferee's name and issue a modified permit reflecting the transfer of ownership. Terms and conditions of the original permit are transferred to and become the responsibility of the new owner.


Signature Original Owner


Signature New Owner

Name Al Sammons
DBA SAMMONS OIL CO.
Address 613 S. Federal Blvd.
P. O. Box 407
Riverton, WY 82501
Telephone 307-856-5215

Name WY Dept. of Environmental
Quality
Address 250 Lincoln Street
Lander, WY 82520
Telephone 307 - 332 - 3144

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-434

- X New
- Renewal
- Modified

Haught 4th Addition - Sanitary Sewer

This permit hereby authorizes the applicant:

Haught Construction, Inc.
1301 East "M" Street
Torrington, WY 82240

to construct, install or modify public wastewater collection system according to the procedures and conditions of the application number 88-434. The facility is located in Section 11, T24N, R61W, SW $\frac{1}{4}$ in the county of Goshen, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

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 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.

AUTHORIZED BY:

William L. Janda
Administrator
Water Quality Division

Richard Wood
Director
Department of Environmental Quality

10/24/88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

cc: Jack Noblitt, Eastern Wyoming Engineering & Surveying Professionals,
P O Box 99, Torrington, WY 82240

PERMIT TO CONSTRUCT

PERMIT NO. 88-435
SEE SPECIAL CONDITIONS

- X New
- Renewal
- Modified

THE MCCRIMMON BUILDING MONITOR WELLS

This permit hereby authorizes the applicant:

Core Laboratories
420 West First Street
Casper, Wyoming 82601

to construct, install or modify monitor wells according to the procedures and conditions of the application number 88-435. The facility is located in T33N, R79W in the county of Natrona, in the State of Wyoming. This permit shall be effective for a period of five (5) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

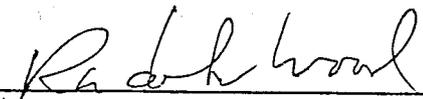
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

10-20-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Special Conditions for Permit to Construct #88-435

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-435. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
5. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.

6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
 - a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is required;
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
8. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
 - a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;
 - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;

Conditions to Permit 88-435 (continued)

- e. Water level and product thickness measurements;
 - f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
 10. All monitor wells associated with this facility shall be sampled and the wastewater analyzed quarterly for benzene, ethylbenzene, toluene, xylene, and total hydrocarbons until other monitoring operations are allowed by the DEQ/WQD. Product too thin to measure shall be noted and reported (i.e., film, sheen, odor, iridescences, etc.). When measureable product layers exist, they are to be measured and the above parameters need not be sampled for. The results of these analyses are due in the Cheyenne office by the last day of the month following the end of each quarter in January, April, July, and October. Samples should be collected during the first week of the last month of each quarter to ensure timely submittal. The first set of quarterly results are due by the last day of November, 1988.
 11. The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.

cc: Jake Strohman

PERMIT TO CONSTRUCT

PERMIT NO. 88-436

X New
Renewal
Modified

Frontier Refining Backflow Preventer

This permit hereby authorizes the applicant:

Frontier Oil and Refining Company
2700 East 5th Street
Cheyenne, Wyoming 82007

to construct, install or modify backflow prevention facilities for public water system according to the procedures and conditions of the application number 88-436. The facility is located in Sections 4 and 5, T13N, R66W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of 90 days (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

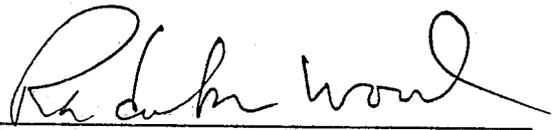
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

11-29-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

cc: Cheyenne Board of Public Utilities

PERMIT TO CONSTRUCT

PERMIT NO. 88-437
See Conditions

- New
- Renewal
- Modified

Homax Oil Sales West Glenrock Bulk Plant

This permit hereby authorizes the applicant:

Homax Oil Sales Inc.
605 South Poplar
Casper, WY 82601

to construct, install or modify monitoring well(s) according to the procedures and conditions of the application number 88-437. The facility is located in S5, T33N, R75W in the county of Converse, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

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 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

10-20-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #88-437

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-437. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
5. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be

Conditions to Permit 88-437 (continued)

addressed when the wells are installed:

- a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is strongly recommended;
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. To prevent cross contamination of the boreholes, all equipment used in the drilling and soil sampling process including auger flights, drill pipe/stem, drill bits and splitspoons shall be decontaminated by means of a high pressure steam or approved equal method prior to drilling each borehole.
 8. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
 9. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
 - a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;

Conditions to Permit 88-437 (continued)

- d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - e. Water level and product thickness measurements;
 - f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
10. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
 11. All monitor wells associated with this facility shall be sampled and the wastewater analyzed within one week of drilling for the parameters listed below: BETX, TPH

The results of these analyses shall be submitted to the Cheyenne office by the last day of the month following the end of sampling due date. The first set of results are due by the last day of November.
 12. All inventory records for a year prior to the report of a spill shall be submitted to the DEQ/WQD within 15 days of receipt of this permit. Reconciled inventory records with the volume of the spill specified shall be submitted to the DEQ/WQD within 45 days of receipt of this permit.
 13. The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.
 14. The time schedule for plan implementation as submitted in 10-14-88 proposal shall be adhered to. Drilling shall commence on or before 10-17-88.

cc: Jake Strohman

PERMIT TO CONSTRUCT

PERMIT NO. 88-438
See Conditions

- X New
- Renewal
- Modified

Homax Oil Sales 838 East C

This permit hereby authorizes the applicant:

Homax Oil Sales Inc.
605 South Poplar
Casper, WY 82601

to construct, install or modify monitoring well(s) according to the procedures and conditions of the application number 88-438. The facility is located in S3, T33N, R79W in the county of Natrona, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

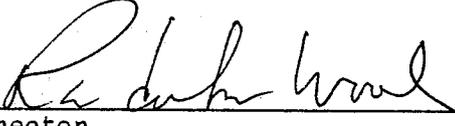
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

10-20-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #88-438

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-438. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
5. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be

Conditions to Permit 88-438 (continued)

addressed when the wells are installed:

- a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is strongly recommended;
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. To prevent cross contamination of the boreholes, all equipment used in the drilling and soil sampling process including auger flights, drill pipe/stem, drill bits and splitspoons shall be decontaminated by means of a high pressure steam or approved equal method prior to drilling each borehole.
 8. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
 9. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
 - a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;

Conditions to Permit 88-438 (continued)

- d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - e. Water level and product thickness measurements;
 - f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
10. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
 11. All monitor wells associated with this facility shall be sampled and the wastewater analyzed within one week of drilling for the parameters listed below: BETX, TPH

The results of these analyses shall be submitted to the Cheyenne office by the last day of the month following the end of sampling due date. The first set of results are due by the last day of November.
 12. All inventory records for a year prior to the report of a spill shall be submitted to the DEQ/WQD within 15 days of receipt of this permit. Reconciled inventory records with the volume of the spill specified shall be submitted to the DEQ/WQD within 45 days of receipt of this permit.
 13. The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.
 14. The time schedule for plan implementation as submitted in 10-14-88 proposal shall be adhered to. Drilling shall commence on or before 10-17-88.

cc: Jake Strohman

PERMIT TO CONSTRUCT

PERMIT NO. 88-439
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Elk Basin Field Deep Bed Anode

This permit hereby authorizes the applicant:

Amoco Production Co.
1670 Broadway #2160
Denver, CO 80202

to construct, install or modify deep anode beds according to the procedures and conditions of the application number 88-439. The facility is located in Elk Basin Field, Townships 57 and 58N, Ranges 99 and 100W in the counties of Park and Carbon, in the State of Wyoming. This permit shall be effective for a period of five years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

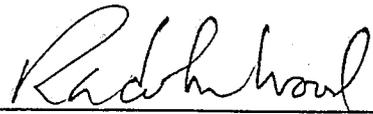
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

10-28-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

CONDITIONS TO PERMIT TO CONSTRUCT 88-439

1. The cathodic protection deep anode ground bed well shall be installed in accordance with the conditions of this permit and plans and specifications submitted in permit to construct application number 88-439.
2. After the deep anode ground bed well has fulfilled its useful purpose, it shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after the well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.
3. In addition to the anode bed construction information submitted with the permit application, the following items relating to well construction must be addressed when the well is installed:
 - a. Construct a surface seal around the casing of the hole consisting of 10 feet of concrete or sacrete on top of 10 feet of hydrated bentonite pellets.
 - b. The coke breeze backfill has a total organic content no greater than 0.2 percent. This excludes using metallurgical coke breeze.
 - c. All aquifers encountered while drilling shall be isolated with polymer mud to prevent co-mingling of different aquifers or each aquifer shall be isolated, sampled and analyzed for all parameters contained in Table I of Chapter VIII of Wyoming Water Quality Rules and Regulations. If aquifers are of the same class of use as determined by the Department of Environmental Quality, intermingling may be allowed.
 - d. Extended casing must be capped and locked.

Conditions to Permit 88-439 (continued)

- e. Any water used during installation will be analyzed for TDS, sodium calcium, magnesium, potassium cations, chloride, sulfate, carbonate, bicarbonate anions, pH, specific gravity and resistivity.
 - f. Manufacturer's information on the carbon content of the coke breeze and leachability testing submitted to this office prior to installation of anode beds.
4. Within 45 days after the well has been installed, as-built construction plans need to be submitted to the Wyoming Department of Environmental Quality, Water Quality Division, detailing that the groundwater was protected during construction.
 5. Up to 50 similar anodes may be installed during the term of this permit and in the two townships covered by this permit. All installations to have similar construction specifications.

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 88-440
* Condition on Permit

Questar Pipeline Cleaning Facility
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Questar Pipeline Company

79 South State Street

Salt Lake City, Utah 84117

to construct, install, or modify a dehydration unit cleaning facility according to the procedures and conditions of the application No. 88-440. The facility is located in NE 1/4, SE 1/4, Section 4, T18N, R105W in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met.

The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

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 issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

11-7-88

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

* Conditions on Permit *

1. The contents of the holding tanks shall be disposed of only at a DEQ/WQD permitted waste disposal facility. (List Enclosed)

LAND APPLICATION PERMIT

Permit No. 88-441
SEE SPECIAL CONDITIONS

Marathon King Dome Oil Field
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Marathon Oil Co.
P.O. Box 2690
Cody, WY 82414

to land apply waste crude oil. The application site is located in Sec. 19 & 24, T44N, R96W in the County of Hot Springs, in the State of Wyoming. This permit shall be effective for a period of one (1) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable standards. The authority to land apply granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the disposal method will meet applicable state requirements.

Nothing in this permit constitutes an endorsement of the disposal method described herein. This permit indicates only that standards required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allow under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the disposal method described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the application site at the above location, for the purpose of compliance with the provisions of this permit.

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

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any

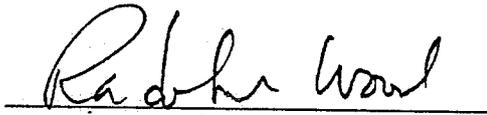
Land Application Permit
Permit No. 88-441
Marathon King Dome Oil Field

injury to private property or any invasion of personal rights, nor any infringements of federal, state or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

10-25-88

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

LAND APPLICATION STANDARD CONDITION

1. Waste oil shall be applied at a rate which will not produce runoff or ponding. Application shall not be initiated during the spring runoff period or other periods where saturated soil conditions exist.
2. The application site slope shall not exceed 8 percent.
3. Waste oil application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
4. The permittee will contact the Department of Environmental Quality, Water Quality Division District Engineer, Steve Gerber phone number 332-3144, to arrange a field inspection prior to initiation of work. The district engineer should be notified at least 48 hours in advance of discharges and must be informed how much wastewater will be applied (number of truckloads), the specific site of application (to the nearest 1/4 section) and time of application.
5. Waste oil and sludges applied to a road will be mechanically incorporated into the road bed as it is applied. Wastes will not be applied during the period from November 15 to April 30.

RF

PERMIT TO CONSTRUCT

[] New Permit No. 88-442R
[] Renewal
[X] Modified

Pinedale Waterline Replacement
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Town of Pinedale

P.O. Box 709

Pinedale, WY 82941

to construct, install, or modify a replace an old steel water line with a new 6" diameter ductile iron water line facility according to the procedures and conditions of the application No. 88-442R. The facility is located in Sec 3, T33N, R109W in the County of Sublette, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met.

The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

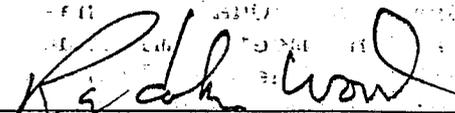
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

11-2-88
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 88-443

Aspens Watermain Connection - Estates Area
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Aspens Water & Sewer District

P.O. Box 25003

Jackson, WY 83001

to construct, install, or modify a 800 feet of watermain connecting to existing main facility according to the procedures and conditions of the application No. 88-443. The facility is located in NE 1/4 SE 1/4 Sec. 11, T41N, R117W in the County of Teton, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met.

The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

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 issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

11-9-88
Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-444

- X New
- Renewal
- Modified

Rawlins Products, Inc. Ammonia Plant

This permit hereby authorizes the applicant:

Energy International, Inc.
135 William Pitt Way
Pittsburgh, PA 15238

to construct, install or modify wastewater collection sewer, septic tank and leach field according to the procedures and conditions of the application number 88-444. The facility is located in NW $\frac{1}{4}$, Section 11, T21N, R89W in the county of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

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 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.

AUTHORIZED BY:

William S. Garland
Administrator
Water Quality Division

Richard Wood
Director
Department of Environmental Quality

12-22-88
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 88-445

West Main Watermain Replacement
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

City of Riverton

P.O. Box 1700

Riverton, WY 82501

to construct, install, or modify a watermain by replacing existing 8" ductile iron with 1900 ft of PVC facility according to the procedures and conditions of the application No. 88-445. The facility is located in NW 1/4 SW 1/4 and SW 1/4 NW 1/4 Sec. 29, T1N R4E Wind River Meridian in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

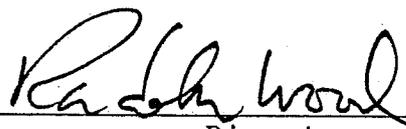
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

11-9-88

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-446

- X New
- Renewal
- Modified

DEQ - MOUNTAIN VIEW UST PROJECT

This permit hereby authorizes the applicant:

TriHydro Corporation
410 Grand Avenue, Suite 213
Laramie, WY 82070

to construct up to 30 monitoring wells and boreholes according to the procedures and conditions of the application number 88-446. The facility is located in NE NE Section 23, T15N, R115W in the county of Uinta, in the State of Wyoming. This permit shall be effective for a period of 5 years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

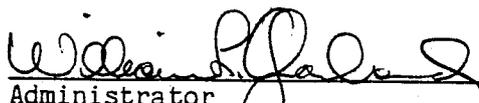
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

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 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

11-2-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions for Permit to Construct 88-446

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-446. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. After the monitoring wells have been properly installed and completed, the Department of Environmental Quality, Water Quality Division shall take ownership and responsibility of all monitoring wells.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
5. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
 - a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;

Conditions to Permit 88-446 (continued)

- c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is recommended;
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
6. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
7. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
8. All monitor wells associated with this facility shall be sampled and the wastewater analyzed for one sampling event for the parameters listed below:
- Parameters listed in the permit to construct application #88-446.
9. The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.

cc: Jake Strohman

RF

PERMIT TO CONSTRUCT

PERMIT NO. 88-447
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

WESTERN SUGAR LOVELL PLANT

This permit hereby authorizes the applicant:

Western Sugar Company
555 17th Street, Suite 1700
Denver, Colorado 80202

to construct, install or modify monitoring wells according to the procedures and conditions of the application number 88-447. The facility is located in SE $\frac{1}{4}$ Section 10, NE $\frac{1}{4}$ Section 15, T56N, R96W in the county of Big Horn, in the State of Wyoming. This permit shall be effective for a period of five (5) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

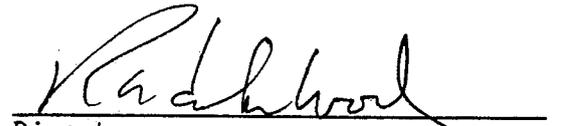
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

11-2-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions for Permit to Construct 88-447

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-447. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
5. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.

Conditions to Permit 88-447 (continued)

6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
 - a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is strongly recommended;
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
8. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
 - a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;
 - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;

Conditions to Permit 88-447 (continued)

- e. Water level and product thickness measurements;
 - f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
10. All monitor wells associated with this facility shall be sampled and the wastewater analyzed quarterly for the parameters listed below:

Date
Time of Collection
Name of Person Collecting Sample
Weather Conditions
Water Level (groundwater only)
Temperature
pH (Field)
pH (Laboratory)
Conductance (Field)
Conductance (Laboratory)
Chloride
Sulfate
Ammonia
Nitrate
Nitrite
BOD
COD
Total Dissolved Solids
Phosphorus
Chromium
Copper
Iron
Manganese
Zinc
Total Organic Carbon
Oil and Grease

The results of these analyses shall be submitted to the Cheyenne office by the last day of the month following the end of each quarter. The first set of results are due by the last day of January, 1989.

Conditions to Permit 88-447 (continued)

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

cc: Jake Strohman

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PERMIT TO CONSTRUCT

PERMIT NO. 88-448
See Conditions

X New
Renewal
Modified

Rock River Gas Plant

This permit hereby authorizes the applicant:

Marathon Oil Company
P. O. Box 2690
Cody, WY 82414

to construct, install or modify groundwater monitoring wells according to the procedures and conditions of the application number 88-448. The facility is located in S34, T20N, R78W in the county of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

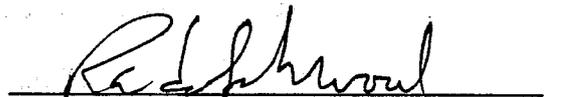
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

11-7-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #88-448

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-448. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
5. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be

addressed when the wells are installed:

- a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is strongly recommended;
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
8. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
- a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;
 - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - e. Water level and product thickness measurements;

Conditions to Permit 88-448 (continued)

- f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
10. All monitor wells associated with this facility shall be sampled and the wastewater analyzed for the parameters listed below: BETX, TPH
- The results of these analyses shall be submitted to the Cheyenne office in the report due in 90 days. Depending on the results of these analyses, additional sampling and analysis may be required by the Water Quality Division. A sampling schedule will be developed at that time.
11. All inventory records for a year prior to the report of a spill shall be submitted to the DEQ/WQD within 15 days of receipt of this permit. Reconciled inventory records with the volume of the spill specified shall be submitted to the DEQ/WQD within 45 days of receipt of this permit.
12. The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.

cc: Jake Strohman

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PERMIT TO CONSTRUCT

PERMIT NO. 88-449
See Conditions

- X New
- Renewal
- Modified

McFadden Field Office

This permit hereby authorizes the applicant:

Marathon Oil Company
P. O. Box 2690
Cody, WY 82414

to construct, install or modify groundwater monitoring wells according to the procedures and conditions of the application number 88-449. The facility is located in S35, T20N, R78W in the county of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

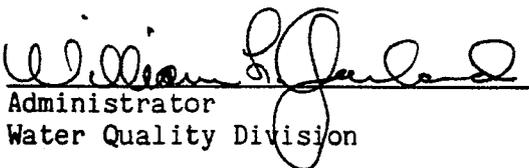
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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

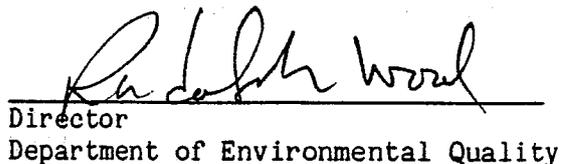
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The 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.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

11-7-88

Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #88-449

1. The groundwater monitoring wells shall be installed in accordance with the conditions of this permit and the plans and specifications submitted in permit to construct application number 88-449. Additional wells meeting the requirements of the application and this permit may be installed if prior approval is received from the Water Quality Division (WQD).
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), a deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Chapter XI, Part G. However a sufficient seal shall be installed according to normal engineering practice.
3. After the monitoring wells 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. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the WQD.
4. Well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitor wells shall be reported immediately to the division. The wells shall be clearly numbered.
5. The issuance of this permit does not relieve the permittee from obligations to complete the extent of contamination study and any further remedial actions which may be required. Depending on the results of the subsurface contamination investigation, additional site investigations or remedial measures may be required by the WQD. An adequate number of wells shall be installed to define the extent of contamination.
6. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be

Conditions to Permit 88-449 (continued)

addressed when the wells are installed:

- a. After the bentonite has been placed in the annular space, it shall be hydrated to ensure a proper seal;
 - b. The borehole diameter shall be at least four inches larger in diameter than the casing diameter;
 - c. The screened interval shall extend at least two or three feet above the highest expected seasonal groundwater level and at least five feet below the lowest expected groundwater level;
 - d. If PVC casing is used, only threaded PVC casing is acceptable. Under no circumstances are PVC glue or plastic welding solvents to be used to join casings;
 - e. To minimize the entrance of fine-grained material into the well, the filter pack shall be designed to be compatible with the perforation size and the geologic materials encountered within the perforated interval;
 - f. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - g. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - h. A protective casing and locking cap is strongly recommended;
 - i. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - j. A seal of bentonite or bentonite grout is required from the surface to a foot or two above the top perforation. Protective casing shall be cemented into a sloping concrete cap; and
 - k. All monitor wells shall be designed so that they contain a minimum of 3 feet of water at all times.
7. DEQ/WQD personnel shall be given at least two weeks notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be on-site if deemed necessary.
8. Within 90 days of the issuance of this permit, a report on the subsurface investigation shall be submitted to the WQD. This report shall contain at a minimum:
- a. A chronology of events leading up to the investigation;
 - b. A site map showing physical features, well locations and elevations;
 - c. Final location, construction details and logs of all monitoring wells;
 - d. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - e. Water level and product thickness measurements;

Conditions to Permit 88-449 (continued)

- f. Sample collection procedures;
 - g. Sampling analytical results;
 - h. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - i. A potentiometric surface map showing the direction of groundwater movement; and
 - j. Interpretation of data and conclusions including recommended remedial measures.
9. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD standard procedures.
10. All monitor wells associated with this facility shall be sampled and the wastewater analyzed for the parameters listed below: BETX, TPH
- The results of these analyses shall be submitted to the Cheyenne office in the report due in 90 days. Depending on the results of these analyses, additional sampling and analysis may be required by the Water Quality Division. A sampling schedule will be developed at that time.
11. All inventory records for a year prior to the report of a spill shall be submitted to the DEQ/WQD within 15 days of receipt of this permit. Reconciled inventory records with the volume of the spill specified shall be submitted to the DEQ/WQD within 45 days of receipt of this permit.
12. The results of any analyses conducted on soil or water removed from these wells or boreholes shall be provided to the department as soon as they are available.

cc: Jake Strohmman

PERMIT TO CONSTRUCT

[] New

Permit No. 88-450R

[] Renewal

Ref. 87-416RR

[X] Modified

Wyoming Boys School - Wastewater Improvements
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Wyoming Boys School

1550 Highway 20 South

Worland, WY 82401

to construct, install, or modify a P.E. sewer pipe direct buried between the lagoon and drainfield facility according to the procedures and conditions of the application No. 88-450R. The facility is located in Se 1/4 Sec. 15, T46N, R93W in the County of Washakie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met.

The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

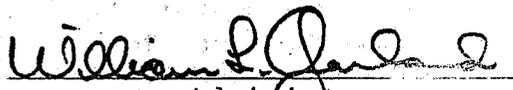
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, WY 82520; telephone, 332-3144.

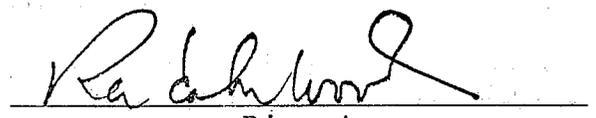
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

11-21-88

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.