

R.F.

LAND APPLICATION PERMIT

Permit No. 89-201R

(Ref. 88-096)

SEE SPECIAL CONDITIONS

ELK CREEK ROAD DUST CONTROL #1

(Name of Facility)

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

Fred L. Oedekoven

481 Recluse Road

Recluse, Wyoming 82725

To land apply produced water to Elk Creek Road for dust control. The application site is located in Section 25, T.56N., R.72W., and Section 30, T.56N., R.71W., in the County of Campbell, in the State of Wyoming. This permit shall be effective for a period of six (6) months 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 allowed 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 provisions of this permit.

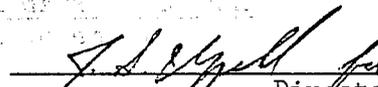
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulations.

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

6-27-89

Date of Issuance

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

LAND APPLICATION SPECIAL CONDITIONS

1. Produced water 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. Produced water application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
3. This permit is in effect for a period of six months from the date of issuance. Any produced water application after that six month period must be reauthorized by the Water Quality office.
4. This permit is contingent on the applicant receiving approval from the appropriate Federal agency should application occur on Federal lease, roads, or should produced water from Federal leases be used for application.

xc: BLM - Buffalo Resource Area
189 N. Cedar
Buffalo, Wyoming 82834

R.F.

LAND APPLICATION PERMIT

Permit No. 89-202R
SEE SPECIAL CONDITIONS

ELK CREEK ROAD DUST CONTROL #2
(Name of Facility)

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

Fred L. Oedekoven

481 Recluse Road

Recluse, Wyoming 82725

To land apply produced water to Elk Creek Road for dust control. The application site is located in Section 34, T.56N., R.72W., in the County of Campbell, in the State of Wyoming. This permit shall be effective for a period of six (6) months 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 allowed 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 provisions of this permit.

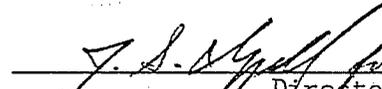
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulations.

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

6-27-89

Date of Issuance

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

LAND APPLICATION SPECIAL CONDITIONS

1. Produced water 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. Produced water application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
3. This permit is in effect for a period of six months from the date of issuance. Any produced water application after that six month period must be reauthorized by the Water Quality office.
4. This permit is contingent on the applicant receiving approval from the appropriate Federal agency should application occur on Federal lease roads; or should produced water from Federal leases be used for application.

xc: BLM - Buffalo Resource Area
189 N. Cedar
Buffalo, Wyoming 82834

R.F.

LAND APPLICATION PERMIT

Permit No. 89-203R
SEE SPECIAL CONDITIONS

ELK CREEK ROAD DUST CONTROL #3
(Name of Facility)

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

Fred L. Oedekoven

481 Recluse Road

Recluse, Wyoming 82725

To land apply produced water to Elk Creek Road for dust control. The application site is located in Sections 32 & 33, T.56N., R.73W., in the County of Campbell, in the State of Wyoming. This permit shall be effective for a period of six (6) months 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 allowed 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 provisions of this permit.

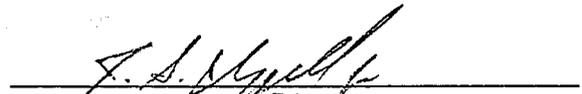
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulations.

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AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

6-27-89

Date of Issuance

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

LAND APPLICATION SPECIAL CONDITIONS

1. Produced water 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. Produced water application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
3. This permit is in effect for a period of six months from the date of issuance. Any produced water application after that six month period must be reauthorized by the Water Quality office.
4. This permit is contingent on the applicant receiving approval from the appropriate Federal agency should application occur on Federal lease roads, or should produced water from Federal leases be used for application.

xc: BLM - Buffalo Resource Area
189 N. Cedar
Buffalo, Wyoming 82834

R.F.

LAND APPLICATION PERMIT

Permit No. 89-204R
(Ref. 88-098)
SEE SPECIAL CONDITIONS

HARRIS ROAD DUST CONTROL
(Name of Facility)

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

Fred L. Oedekoven

481 Recluse Road

Recluse, Wyoming 82725

To land apply produced water to Harris Road for dust control. The application site is located in Section 9, T.55N., R.72W., in the County of Campbell, in the State of Wyoming. This permit shall be effective for a period of six (6) months 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 allowed 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 provisions of this permit.

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 regulations.

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AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

6-27-89

Date of Issuance

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

LAND APPLICATION SPECIAL CONDITIONS

1. Produced water 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. Produced water application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
3. This permit is in effect for a period of six months from the date of issuance. Any produced water application after that six month period must be reauthorized by the Water Quality office.
4. This permit is contingent on the applicant receiving approval from the appropriate Federal agency should application occur on Federal lease roads, or should produced water from Federal leases be used for application.

xc: BLM - Buffalo Resource Area
189 N. Cedar
Buffalo, Wyoming 82834

R.F.

LAND APPLICATION PERMIT

Permit No. 89-205R
(Ref. 88-100)
SEE SPECIAL CONDITIONS

HART ROAD DUST CONTROL
(Name of Facility)

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

Fred L. Oedekoven

481 Recluse Road

Recluse, Wyoming 82725

To land apply produced water to Hart Road for dust control. The application site is located in Section 17, T.56N., R.72W., in the County of Campbell, in the State of Wyoming. This permit shall be effective for a period of six (6) months 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 allowed 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.

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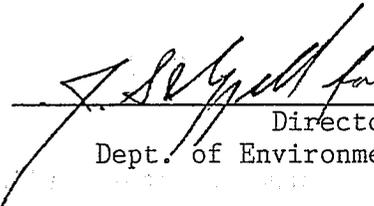
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7.1
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AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

6-27-89

Date of Issuance

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

LAND APPLICATION SPECIAL CONDITIONS

1. Produced water 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. Produced water application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
3. This permit is in effect for a period of six months from the date of issuance. Any produced water application after that six month period must be reauthorized by the Water Quality office.
4. This permit is contingent on the applicant receiving approval from the appropriate Federal agency should application occur on Federal lease roads, or should produced water from Federal leases be used for application.

xc: BLM - Buffalo Resource Area
189 N. Cedar
Buffalo, Wyoming 82834

R.F.

LAND APPLICATION PERMIT

Permit No. 89-206R
(Ref. 88-101)
SEE SPECIAL CONDITIONS

WESTON ROAD DUST CONTROL
(Name of Facility)

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

Fred L. Oedekoven

481 Recluse Road

Recluse, Wyoming 82725

To land apply produced water to Weston Road for dust control. The application site is located in Section 24, T.54N., R.70W., and Section 30, T.54N., R.71W., in the County of Campbell, in the State of Wyoming. This permit shall be effective for a period of six (6) months 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.

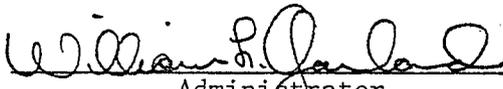
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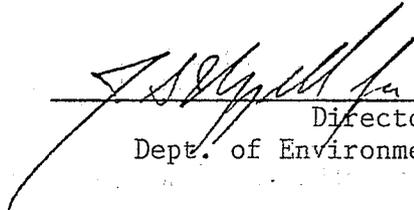
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AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality

6-27-89

Date of Issuance

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

LAND APPLICATION SPECIAL CONDITIONS

1. Produced water 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. Produced water application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
3. This permit is in effect for a period of six months from the date of issuance. Any produced water application after that six month period must be reauthorized by the Water Quality office.
4. This permit is contingent on the applicant receiving approval from the appropriate Federal agency should application occur on Federal lease roads, or should produced water from Federal leases be used for application.

xc: BLM - Buffalo Resource Area
189 N. Cedar
Buffalo, Wyoming 82834

LAND APPLICATION PERMIT

PERMIT NO.: 89-207R
SEE SPECIAL CONDITIONS

Phosphoria Unit Injection Tanks
(Name of Facility)

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

Graham Resources, Inc.

P.O. Box 73

Hamilton Dome, WY 82427

to land apply 20 cubic yards of tank bottom sludges. The application site is located in Section 13, T44N, R98W in the county of Hot Springs in the State of Wyoming. This permit shall be effective for a period of four (4) months 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.

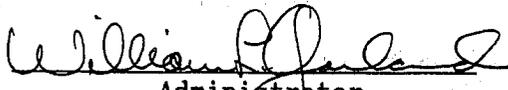
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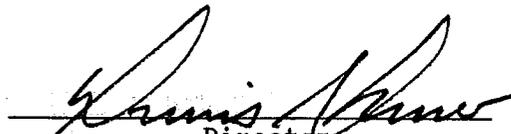
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the application site at the above location, for the purpose of compliance with the provisions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

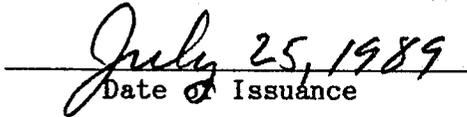
Nothing in this permit shall be construed to preclude the constitution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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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.

LAND APPLICATION STANDARD CONDITION

1. Sludges shall be applied at a rate which will not produce runoff or ponding. Application shall not be initiated where saturated soil conditions exist.
2. The application site slope shall not exceed 8 percent for vehicular application.
3. Sludge 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.
5. 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 1 to April 30.

PERMIT TO CONSTRUCT

PERMIT NO. 89-208
See Conditions

- New
- Renewal
- Modified

Milo Location

This permit hereby authorizes the applicant:

Leaksearch, Inc.
104 S Wolcott, Suite 724
Casper, WY 82602

to construct, install or modify monitor well system according to the procedures and conditions of the application number 89-208. The facility is located in SW S1, T33N, 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:

William R. Jarad
Administrator
Water Quality Division

H. Alan Edwards
Director
Department of Environmental Quality

June 13, 1989
Date of Issuance

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

Conditions to Permit to Construct #89-208

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 89-208. 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 shall be

implemented when the wells are constructed, installed and developed:

- 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is strongly recommended;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - i. 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
 - j. 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;
 - f. Sample collection procedures;
 - g. Sampling analytical results;

Conditions to Permit 89-208 (continued)

- 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 (schedule) for the parameters listed below:
EPA 602 (BETX) and EPA 418.1 (TPH)
- The results of these analyses shall be submitted to the Cheyenne by the last day of the month following the end of each quarter, the year, sampling due date, etc). The first set of results are due by the last day of July.
11. The time schedule for plan implementation as submitted in the proposal shall be adhered to.

SCF/mad

cc: Jake Strohman

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 89-209
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Glenrock City Shop

This permit hereby authorizes the applicant:

Town of Glenrock
P O Box 417
Glenrock, Wyoming 82637

to construct, install or modify monitoring well system according to the procedures and conditions of the application number 89-209. The facility is located in Section 5, NE/NW, T33N, R75W in the county of Converse, 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.

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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.

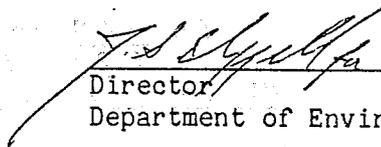
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

June 27, 1989
Date of Issuance

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

Conditions for Monitoring Wells

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 89-209. 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 shall be implemented when the wells are constructed, installed and developed:
 - 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is strongly recommended;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - i. 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
 - j. 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 30 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;
 - f. Sample collection procedures;

Conditions to Permit 89-209 (continued)

- g. Sampling analytical results;
 - h. 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:

EPA 602 (BETX) and EPA 418.1 (BETX)

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 July.

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.

/jt

cc: Jake Strohmman

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

PERMIT NO. 89-210

KOA CAMPGROUND WASTEWATER TREATMENT MODIFICATIONS
(Name of Facility)

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

Ted Tomlinson

P. O. Box 35A

Sheridan, Wyoming 82801

to construct, install or modify a waste water treatment facility according to the procedures and conditions of the application No. 89-210. The facility is located in Section 10, T.56N., R.84W., in the County of Sheridan, 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.

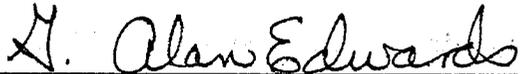
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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,

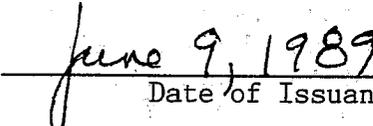
AUTHORIZED BY:



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: Carroll S. Delaney
Case/Cotter, Inc.
6625 E. 49th Avenue
Commerce City, Colorado 80022

RF

PERMIT TO CONSTRUCT

PERMIT NO. 89-211
SEE SPECIAL CONDITIONS

- New
- Renewal
- Modified

SCHLUMBERBER WELL SERVICES - EVANSTON FACILITY

This permit hereby authorizes the applicant:

Schlumberger Well Services
7040 Salt Creek Hwy #2
Casper, Wyoming 82601

to construct, install or modify monitoring well system and borehole network according to the procedures and conditions of the application number 89-211. The facility is located in Section 19 T15N, R120W in the county of Uinta, 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.

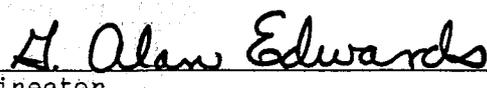
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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.

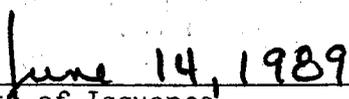
AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality



Date of Issuance

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

Special Conditions for Permit to Construct 89-211

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 89-211. 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 89-211 (continued)

- . In addition to the well construction information submitted with the permit application, the following items relating to well construction shall be implemented when the wells are constructed, installed and developed:
 - 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is strongly recommended;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - i. 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
 - j. 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;
 - f. Sample collection procedures;

Conditions to Permit 89-211 (continued)

- 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:
EPA Methods 601, 602, 610 (or other compatible analysis), and 418.1.
- 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 August 1989.
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.
13. Pending Water Quality Division evaluation for the first 2 results, a reduction in sampling parameters and/or frequency may be granted.

ELJ/jn

cc: Jake Strohman, DEQ/WQD

MEMORANDUM

TO: IPS Permit to Construct File (#89-213)
FROM: Kevin Frederick
RE: Permit to Construct #89-213
DATE: January 11, 1993

Application for Permit to Construct #89-213 (Application for "As-Built" approval of LARCO's Brookhurst SVE System) has been withdrawn. LARCO has submitted a second application for Permit to Construct (#92-195) for this system which replaces #89-213.

SE/LARCO/89-213.MEM

RF

PERMIT TO CONSTRUCT

PERMIT NO. 89-215
SEE SPECIAL CONDITIONS

- X New
- Renewal
- Modified

Naval Petroleum Reserve No. 3 Privies

This permit hereby authorizes the applicant:

U.S. Department of Energy
800 Werner Court, Suite 342
Casper, Wyoming 82601

to construct, install or modify temporary privies over vaults according to the procedures and conditions of the application number 89-215. The facility is located in T38N, R78W in the county of Natrona, 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.

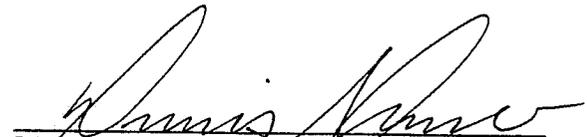
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, 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

February 15, 1990
Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #89-215

Construction provision 7 is deleted from the letter dated October 16, 1989. Drilled risers for waste containment are not compatible with using a 500 gallon concrete vault.

LBH/nc

cc: Bill Johnston, Northeast District Engineer, DEQ/WQD

4

PERMIT TO CONSTRUCT

PERMIT NO. 89-216
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

DINING HALL, BUILDING 325

This permit hereby authorizes the applicant:

F E Warren AFB
90 CSG/CC
F. E. Warren AFB, WY 82005-5000

to construct, install or modify a fire sprinkler service according to the procedures and conditions of the application number 89-216. The facility is located in Section 26, 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.

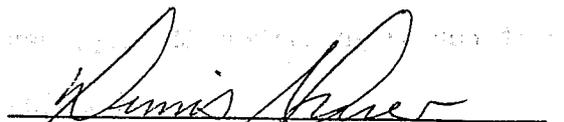
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, 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.

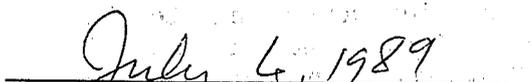
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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


Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #89-216

1. This approval includes the double check valve as added by a letter dated June 29, 1989 from Rick Johnston of Gust & Johnston. Mr Johnston is the mechanical engineer for the project.

LBH/jn

RECEIVED

PERMIT TRANSFER REQUEST

MAR 14 1991
March 8, 1991

WATER QUALITY DIVISION
WYOMING

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

To Whom it Concerns:

Budget Rent - A - Car intends to transfer ownership of the facility associated with Permit Number 89-217 to Jackson Hole Airport Board on March 8, 1991. 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 Budget Rent - A - Car

Name Jackson Hole Airport

Address 188 Lomax

Address P. O. Box 159

Idaho Falls, Idaho 83401

Jackson, WY 83001

Telephone 307-733-2206

Telephone (307) 733-7682

JH/jyi

RECEIVED



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

MAR 11 1991



WATER QUALITY DIVISION
WYOMING

Department of Environmental Quality

210 Lincoln Street • Lander, Wyoming 82520

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
--	---	--	--

March 8, 1991

Jackson Hole Airport
ATTN: Douglas Johnson, Assistant Manager-Operations
P. O. Box 159
Jackson, WY 83001

RE: 89-217

Dear Mr. Johnson:

Please complete the enclosed transfer of ownership form so that the Department of Environmental Quality, Water Quality Division (DEQ/WQD) records reflect the proper ownership of the sewer from the Budget facility to the airports' sewer main. The permit for this sewer was improperly issued to Budget Rent-A-Car.

Thank you for your assistance.

Sincerely,

Jeff Hermansky, P.E.
Water Quality Evaluator

JH/jyi

Enclosure: Permit, Permit Transfer Request

cc: Patty Burns, DEQ/WQD, Cheyenne
file (2)

PERMIT TRANSFER REQUEST

March 8, 1991

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

To Whom it Concerns:

Budget Rent - A - Car intends to transfer ownership of the facility associated with Permit Number 89-217 to Jackson Hole Airport Board on . 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 Budget Rent - A - Car

Name Jackson Hole Airport

Address 188 Lomax

Address P. O. Box 159

Idaho Falls, Idaho 83401

Jackson, WY 83001

Telephone _____

Telephone (307) 733-7682

JH/jyi

PERMIT TO CONSTRUCT

New

Permit No. 89-217

Renewal

Conditions

Modified

Budget Rent-A-Car Sewer Main

(Name of Facility)

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

Budget Rent-A-Car

188 Lomax

Idaho Falls, ID 83401

to construct a 4 inch sewer main according to the procedures and conditions of the application No. 89-217. The facility is located in Section 14, T42N, R116W 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.

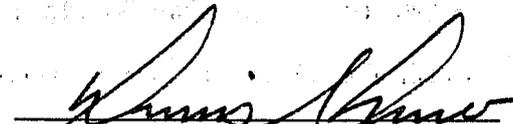
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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

July 25, 1989
Date of Issuance

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

Conditions

1. The car wash facility is to be a temporary facility and shall not be operated for over three years without upgrading the wastewater treatment facility.
2. In no case shall the total wastewater flows exceed the design flows of 17,262 gallons per day.

R.F.

LAND APPLICATION PERMIT
Special Conditions

Permit No. 89-218

Kemmerer Mine
(Name of Facility)

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

Pittsburg & Midway Coal Mining Co.

P.O. Box 950

Kemmerer, WY 83101

to land apply 1000 gallons of Elkol Stoker Oil sludge to mine roads. The application site is located in Sec. 20, T21N, R116W in the County of Lincoln, in the State of Wyoming. This permit shall be effective for a period of 30 days (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 injury to private property or any invasion of personal rights, nor any infringements of federal, state or local laws or regulations.

AUTHORIZED BY:

William J. Paul
Administrator
Water Quality Division

J. S. G. M. J.
Director
Dept. of Environmental Quality

June 27, 1989
Date of Issuance

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

Special Conditions

1. 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 1 to April 30.

RF

PERMIT TO CONSTRUCT

PERMIT NO. 89-219
Connecting to 84-40RR
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

T-Joe's Camp Park

This permit hereby authorizes the applicant:

Mary L. Tuttle, President
2206 Dell Range Blvd.
Cheyenne, WY 82009

to construct, install or modify water distribution and wastewater collection according to the procedures and conditions of the application number 89-219. The facility is located in Section 28, T14N, R65W 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.

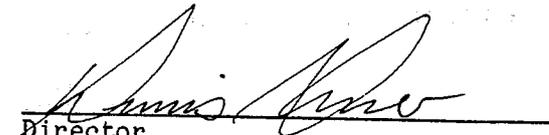
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, 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

August 17, 1989
Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #89-219

1. This permit to construct is justified based on the engineer Joe Kub's letter dated July 24, 1989. This letter states that the Dieke Estates Improvement District septic tank system has adequate reserve capacity to handle the additional loading from T-Joe's Camp Park.
2. This permit is conditional on the ability of the septic tank system to handle the total loading from the Dieke Estates Improvement District. Should the septic tank and drainfield become overloaded, the T-Joe's Camp Park must be vacated in 14 days or less in order to reduce the load.
3. Permit 84-40RR places a requirement on the Dieke Estates Improvement District to discontinue use of the septic tank and drainfield if the nitrate levels as nitrogen of the groundwater exceed 5 ppm. This same condition extends to this permit.

LBH/nc

cc: Joseph E. Kub P.E, 5920 Yellowstone Road, Cheyenne, WY 82009
Jack Sapp, Sapp Brothers Truck Stop,
3350 I80 East Service Road, Cheyenne, WY 82007

RF

LAND APPLICATION PERMIT

PERMIT NO. 89-220
SEE SPECIAL CONDITIONS

AMOCO CASPER TANK FARM

This permit hereby authorizes the applicant:

Amoco Oil Company
c/o Amoco Pipeline Company
P O Box 1309
Mills, Wyoming 82644

to land apply tank bottom coating material mixed with dirt to roads within Casper Tank Farm. The application site is located in Section 5, T33N R79W in the county of Natrona, in the State of Wyoming. This permit shall be effective for a period of six (6) months (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 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 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 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 R. Jacobs
Administrator
Water Quality Division

H. Alan Edwards
Director
Department of Environmental Quality

June 14, 1989
Date of Issuance

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

Conditions to Land Application Permit #89-220

1. Tank bottoms 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. Tank bottoms 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, Louis B. Harmon, 122 West 25th, Herschler Building, 4 West, Cheyenne, Wyoming 82002, phone number 777-7088, 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. Tank bottoms 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 1 to April 30.

MEMORANDUM

TO: Files -

UST Facility #3516, Trailside General Store, West Highway, Torrington [Permit #89-015]
UST Facility #1893, Laramie Heating & Sheet Metal, 602 Skyline Dr., Laramie [#89-034]
UST Facility #1853, Hartman Distributing, 1070 N. 3rd St., Laramie [Permit #89-221]
UST Facility #1228, Spring Creek Conoco, 1409 S. 3rd St., Laramie [Permit #89-231]
UST Facility #2952, Foster's Country Store #4, 1465 N. 3rd St., Laramie [Permit #89-513]

FROM: Clay Rowley, SE District Supervisor, UST/LUST Program

DATE: September 17, 1993

SUBJECT: Retraction of Notices of Violation Issued Prior to Passage of the "Water Pollution from Underground Storage Tank Corrective Action Act of 1990"

Prior to March 1990, Wyoming Department of Environmental Quality, Water Quality Division (WQD), personnel determined that petroleum hydrocarbons derived from underground storage tank systems at the facilities listed above had contaminated the soil and groundwater. State and federal regulations consider this contamination as an unauthorized discharge and letters of violation (LOV's) were issued requiring the owner/operators to take corrective action including abatement, an extent of contamination investigation, free product removal, and cleanup of the contamination.

The 1990 budget session of the Wyoming Legislature passed the "Water Pollution from Underground Storage Tank Corrective Action Act of 1990". Section 35-11-1418(a) of this act states in part that "The state attorney general shall move to dismiss any pending or ongoing suits or administrative actions which are based on the requirement the owner and operator take corrective action" In keeping with this directive the WQD retracted the letters of violation issued to the owner/operators of the facilities listed above, and the owner/operators were no longer required to take corrective action as requested provided:

The owner/operators became, and remain, eligible for use of the act's corrective action funds by paying an annual (fiscal year) site fee of \$200 until the Water Quality Division completes investigation and cleanup based on a priority ranking system of the contaminated states in Wyoming.

As long as the locations remain eligible for use of corrective action funds the state will remain responsible for corrective action based on the ranking system. The sites posing the greatest risk to the public health, safety and welfare and to the environment will be addressed first. The state will be responsible for site investigation and cleanup costs as long as eligibility is maintained.

The files listed above do not have copies of the LOV retraction letters in them, and it may be that they were never formally issued. The purpose of this memorandum is to show that the owner/operators of these facilities are no longer responsible for site investigations and cleanup as long as eligibility for use of corrective action funds at these locations is maintained.

Construction applications are withdrawn.

PB

PERMIT TO CONSTRUCT

New

PERMIT NO. 89-222

Renewal

Modified

KAYCEE PUMP STATION MONITOR WELLS

(Name of Facility)

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

Conoco Pipeline Company

P. O. Box 369

Evansville, Wyoming 82636

to construct, install or modify groundwater monitoring facilities according to the procedures and conditions of the application No. 89-222. The facility is located in Section 11, T.43N., R.81W., in the County of Johnson, 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.

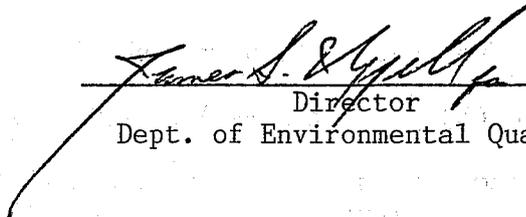
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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,

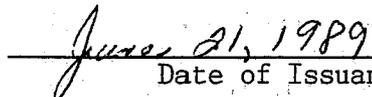
AUTHORIZED BY:



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.

CONDITIONS FOR MONITORING WELLS

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 89-222. 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.

Conditions to Monitoring Wells (continued)

7. DEQ/WQD personnel shall be given at least one (1) week notice prior to the installation of the monitor wells and sample collection so that DEQ/WQD personnel may be onsite if deemed necessary.
8. Within ninety (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. Water level and product thickness measurements;
 - e. Sample collection procedures;
 - f. Sampling analytical results;
 - g. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - h. A potentiometric surface map showing the direction of groundwater movement; and
 - i. 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:

Benzene
Ethylbenzene
Toluene
Xylene

The results of these analyses shall be submitted to the Sheridan WQD office by the last day of the month following the end of each quarter.

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.

xc: Jake Strohmman, DEQ/WQD, Cheyenne

Conditions for Monitoring Wells (continued)

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 shall be implemented when the wells are constructed, installed and developed:
 - 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is strongly recommended;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - i. 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
 - j. All monitor wells shall be designed so that they contain a minimum of three (3) feet of water at all times.

yf

PERMIT TO CONSTRUCT

PERMIT NO. 89-223

X New
 Renewal
 Modified

Roadway Express Freight Terminal

This permit hereby authorizes the applicant:

Board of Public Utilities
2100 Pioneer Avenue
Cheyenne, WY 82003

to construct, install or modify 8" looped water line according to the procedures and conditions of the application number 89-223. The facility is located in Section 2, T13N, 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.

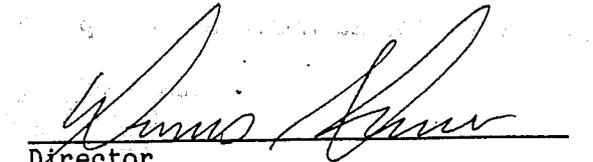
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Southeast District Engineer, 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.

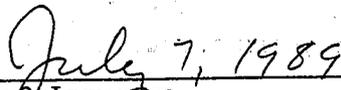
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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


Date of Issuance

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

LBH/jt

cc: Daryl G. Johnson
AVI
2035 Westland Road
Cheyenne, WY 82009

RF

PERMIT TO CONSTRUCT

PERMIT NO. 89-224
See Conditions

X New
Renewal
Modified

Luckey Ditch Federal Unit E-7

This permit hereby authorizes the applicant:

Oryx Energy Company
P O Box 26300
Oklahoma City, OK 73126-0300

to construct, install or modify cathodic protection deep anode ground bed according to the procedures and conditions of the application number 89-224. The facility is located in S15, T12N, R114W in the county of Uinta, 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.

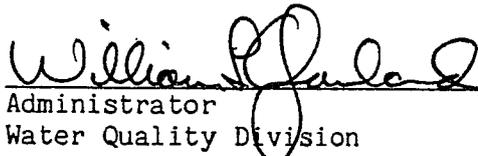
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

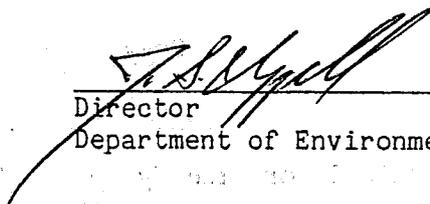
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

6-29-89

Date of Issuance

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

Conditions for Permit to Construct 89-224

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 89-224.
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.

PERMIT TO CONSTRUCT

PERMIT NO. 89-225
See Conditions

X New
Renewal
Modified

Luckey Ditch Federal Unit G-9

This permit hereby authorizes the applicant:

Oryx Energy Company
P O Box 26300
Oklahoma City, OK 73126-0300

to construct, install or modify cathodic protection deep anode ground bed according to the procedures and conditions of the application number 89-225. The facility is located in S8, T12N, R114W in the county of Uinta, 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.

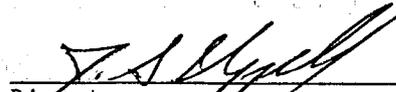
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

6-29-89

Date of Issuance

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

Conditions for Permit to Construct 89-225

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 89-225.
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 89-225 (continued)

5. Up to 25 similar anodes may be installed during the term of this permit and in the township covered by this permit. All installations to have similar construction specifications.

RL/mad

PERMIT TO CONSTRUCT

PERMIT NO. 89-226
See Conditions

X New
Renewal
Modified

Luckey Ditch Federal Unit F-8

This permit hereby authorizes the applicant:

Oryx Energy Company
P O Box 26300
Oklahoma City, OK 73126-0300

to construct, install or modify cathodic protection deep anode ground bed according to the procedures and conditions of the application number 89-226. The facility is located in S10, T12N, R80W in the county of Uinta, 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.

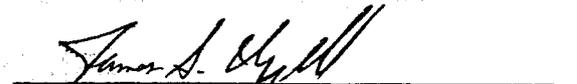
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

6-29-59

Date of Issuance

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

Conditions for Permit to Construct 89-226

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 89-226.
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 89-226 (continued)

5. Up to 25 similar anodes may be installed during the term of this permit and in the township covered by this permit. All installations to have similar construction specifications.

RL/mad

PERMIT TO CONSTRUCT

PERMIT NO. 89-227
See Conditions

X New
Renewal
Modified

Luckey Ditch Federal Unit D-6

This permit hereby authorizes the applicant:

Oryx Energy Company
P O Box 26300
Oklahoma City, OK 73126-0300

to construct, install or modify cathodic protection deep anode ground bed according to the procedures and conditions of the application number 89-227. The facility is located in S21, T12N, R80W in the county of Uinta, 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.

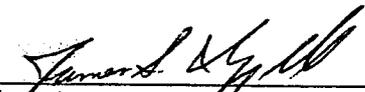
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

6-29-89

Date of Issuance

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

Conditions for Permit to Construct 89-227

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 89-227.
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 89-227 (continued)

5. Up to 25 similar anodes may be installed during the term of this permit and in the township covered by this permit. All installations to have similar construction specifications.

RL/mad

PERMIT TO CONSTRUCT

PERMIT NO. 89-228
See Conditions

X New
Renewal
Modified

Luckey Ditch Federal Unit I-11

This permit hereby authorizes the applicant:

Oryx Energy Company
P O Box 26300
Oklahoma City, OK 73126-0300

to construct, install or modify cathodic protection deep anode ground bed according to the procedures and conditions of the application number 89-228. The facility is located in S18, T12N, R114W in the county of Uinta, 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:

William L. Garland
Administrator
Water Quality Division

J. S. [Signature]
Director
Department of Environmental Quality

6-29-89
Date of Issuance

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

Conditions for Permit to Construct 89-228

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 89-228.
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 89-228 (continued)

5. Up to 25 similar anodes may be installed during the term of this permit and in the township covered by this permit. All installations to have similar construction specifications.

RL/mad

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 89-229
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Evanston Drip Facility

This permit hereby authorizes the applicant:

Stollar & Associates
143 Union Blvd., Suite 640
Lakewood, CO 80228

to construct, install or modify monitoring well system and borehole network according to the procedures and conditions of the application number 89-229. The facility is located in S11, T13N, R119W in the county of Uinta, in the State of Wyoming. This permit shall be effective for a period of one 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.

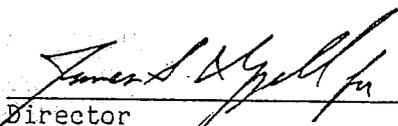
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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


Director
Department of Environmental Quality

June 27, 1989
Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #89-229

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 89-229. 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 shall be implemented when the wells are constructed, installed and developed:
 - 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is strongly recommended;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - i. 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
 - j. 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;

Conditions to Permit 89-229 (continued)

- 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.
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:
- in the permit application package.
- The results of these analyses shall be submitted to the Lander and Cheyenne offices 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 July.
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.
12. Upon review of two consecutive analysis, the Water Quality Division will review the sampling frequency and parameters required by this permit.

EJ/nc

cc: Jake Strohmman

LAND APPLICATION PERMIT

Permit No. 89-230R
(Ref. 88-357)
SEE SPECIAL CONDITIONS

WESTON COUNTY ROAD APPLICATION
(Name of Facility)

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

Weston County Road & Bridge

P. O. Box 931

Newcastle, Wyoming 82701

To land apply waste oil to roads for dust control. The application site is located in Section 29, T.45N., R.61W., in the County of Weston, in the State of Wyoming. This permit shall be effective until November 1, 1989.

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 allowed 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 provisions of this permit.

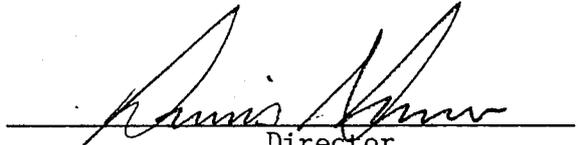
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulations.

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.

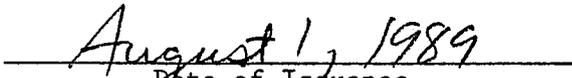
AUTHORIZED BY:



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.

LAND APPLICATION SPECIAL CONDITIONS

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 eight percent for vehicular application.
3. Waste oil application shall be terminated within 30 feet of the definable highwater mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
4. The permittee will contact the Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 501, telephone number 307/672-6457, 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 waste oil 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.
6. This permit is in effect until November 1, 1989. Any application of wastes beyond that date shall be repermited.

MEMORANDUM

TO: Files -

UST Facility #3516, Trailside General Store, West Highway, Torrington [Permit #89-015]
UST Facility #1893, Laramie Heating & Sheet Metal, 602 Skyline Dr., Laramie [#89-034]
UST Facility #1853, Hartman Distributing, 1070 N. 3rd St., Laramie [Permit #89-221]
UST Facility #1228, Spring Creek Conoco, 1409 S. 3rd St., Laramie [Permit #89-231]
UST Facility #2952, Foster's Country Store #4, 1465 N. 3rd St., Laramie [Permit #89-513]

FROM: Clay Rowley, SE District Supervisor, UST/LUST Program

DATE: September 17, 1993

SUBJECT: Retraction of Notices of Violation Issued Prior to Passage of the "Water Pollution from Underground Storage Tank Corrective Action Act of 1990"

Prior to March 1990, Wyoming Department of Environmental Quality, Water Quality Division (WQD), personnel determined that petroleum hydrocarbons derived from underground storage tank systems at the facilities listed above had contaminated the soil and groundwater. State and federal regulations consider this contamination as an unauthorized discharge and letters of violation (LOV's) were issued requiring the owner/operators to take corrective action including abatement, an extent of contamination investigation, free product removal, and cleanup of the contamination.

The 1990 budget session of the Wyoming Legislature passed the "Water Pollution from Underground Storage Tank Corrective Action Act of 1990". Section 35-11-1418(a) of this act states in part that "The state attorney general shall move to dismiss any pending or ongoing suits or administrative actions which are based on the requirement the owner and operator take corrective action" In keeping with this directive the WQD retracted the letters of violation issued to the owner/operators of the facilities listed above, and the owner/operators were no longer required to take corrective action as requested provided:

The owner/operators became, and remain, eligible for use of the act's corrective action funds by paying an annual (fiscal year) site fee of \$200 until the Water Quality Division completes investigation and cleanup based on a priority ranking system of the contaminated states in Wyoming.

As long as the locations remain eligible for use of corrective action funds the state will remain responsible for corrective action based on the ranking system. The sites posing the greatest risk to the public health, safety and welfare and to the environment will be addressed first. The state will be responsible for site investigation and cleanup costs as long as eligibility is maintained.

The files listed above do not have copies of the LOV retraction letters in them, and it may be that they were never formally issued. The purpose of this memorandum is to show that the owner/operators of these facilities are no longer responsible for site investigations and cleanup as long as eligibility for use of corrective action funds at these locations is maintained.

Construction applications are withdrawn.

PB



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

December 29, 1989

Susan Fields
Western Water Consultants
P O Box 4128
Laramie, WY 82071

RE: Dowell Schlumberger Chlorinated Hydrocarbon site assessment and sampling activities related to permit to construct 89-232

Dear Susan:

Pursuant to our conversation on the 21st of December 1989 the department will consider reduction of the sampling requirements of permit to construct 89-232 after the following are provided:

1. One additional sampling event as required by permit to construct 89-232 conditions #8, 9, 10, 11, 12, and 13.
2. Submittal of concentration gradient maps for individual chlorinated hydrocarbon compounds for both sampling events. Each type of chlorinated hydrocarbon should be mapped on a separate map.
3. Static water level contour data for both sampling events.
4. Summation of the data and recommendations for proceeding with cleanup and assessment of other potential sources of contamination.

Please note that condition #13 contains a typographical error and should read as follows:

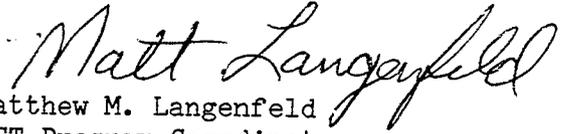
13. The conditions of permit to construct 86-392 and 87-440 are still applicable and are not waived by this permit.

Based on the submittal of this information, its content and sampling results the department will consider reduction of sampling requirements.

usan Fields
December 29, 1989
Page 2

If you have questions contact me at 307-777-7084.

Sincerely,



Matthew M. Langenfeld
UST Program Coordinator
Water Quality Division

MML/jt

cc: William L. Garland, WQD
Jake Strohman, WQD
Ray Ann Lambert, AG

RF

CORRECTED PERMIT

PERMIT TO CONSTRUCT

PERMIT NO. 89-232

See Conditions

New
Renewal
X Modified

Dowell Schlumberger, Worland

This permit hereby authorizes the applicant:

Don Samuels
Dowell Schlumberger
311 Culbertson Avenue
Worland, WY 82430

to construct, install or modify a up to ten monitor wells facility according to the procedures and conditions of the application number 89-232. The facility is located in SWNW $\frac{1}{4}$, S25, T47N, R93W in the county of Washakie, 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

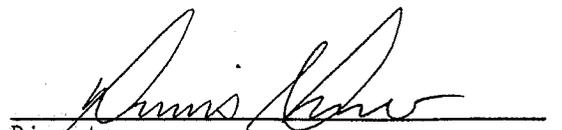
Building, 4th Floor West, 122 West 25th, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

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


Director
Department of Environmental Quality

January 5, 1990
Date of Issuance

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

Conditions for Permit to Construct 89-232

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 89-232. 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. No wells will be plugged and abandoned without prior written approval from the Department.
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 shall be implemented when the wells are constructed, installed and developed:
 - 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is required;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - i. 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 or below grade completion; and
 - j. 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 89-232 (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 listed below will be sampled and analyzed for chlorinated hydrocarbons by EPA Method 601 on a quarterly basis: DEQ-6, DEQ-2, DEQ-13, DEQ-21, DEQ-4, E-4, E-3, E-5, GGW-1, GGW-7, GGW-10, GGW-5, GGW-14, GGW-12, GGW-8, GGW-2, GGW-9, GGW-3, GGW-16, GGW-15, GOGAS RW-2, GOGAS RW-1, Energy Distribution RW-2, GTI-5, GTI-10, GTI-17, GTI-4, DS-4, DS-5, DS-19, DS-18, DS-3, DS-2, DS-1, DS-12, DS-14, DS-15. Any additional wells installed under this permit will also be sampled and analyzed for chlorinated hydrocarbons. Samples shall be collected during the first week of the last month of each quarter. The periods end in March, June, September and December.
- 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 October.
11. Monitor wells DS-19, DS-20, and DS-18 as well as any other wells installed under this permit will be sampled and analyzed for BETX by EPA Method 602 quarterly.
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 and no later than 60 days after sample collection, unless otherwise specified by the department. Any additional wells installed under this permit will also be sampled and analyzed for chlorinated hydrocarbons and BETX.
13. The conditions of permit to construct 86-392 and 87-440 are still applicable and are waived by this permit.

ML/mad

cc: Jake Strohman
Ray Ann Lambert, AG Office
Mike Seller

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 89-232
See Conditions

X New
Renewal
Modified

Dowell Schlumberger, Worland

This permit hereby authorizes the applicant:

M.J. Seller
Dowell Schlumberger
P. O. Box 2710
Tulsa, OK 74101

to construct, install or modify up to ten monitor wells according to the procedures and conditions of the application number 89-232. The facility is located in SWNW1, S25, T47N, R93W in the county of Washakie, 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.

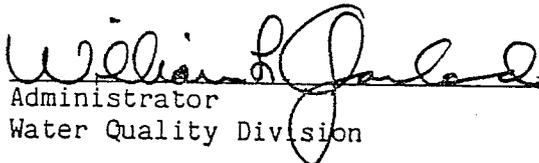
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

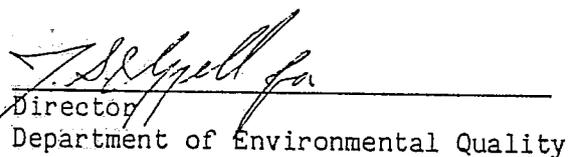
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer, 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


Director
Department of Environmental Quality

June 27, 1989
Date of Issuance

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

Conditions for Permit to Construct 89-232

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 89-232. 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. No wells will be plugged and abandoned without prior written approval from the Department.
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 89-232 (continued)

6. In addition to the well construction information submitted with the permit application, the following items relating to well construction shall be implemented when the wells are constructed, installed and developed:
 - 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is required;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - i. 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 or below grade completion; and
 - j. 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;
 - f. Sample collection procedures;

Conditions to Permit 89-232 (continued)

- 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 listed below will be sampled and analyzed for chlorinated hydrocarbons by EPA Method 601 on a quarterly basis: DEQ-6, DEQ-2, DEQ-13, DEQ-21, DEQ-4, E-4, E-3, E-5, GGW-1, GGW-7, GGW-10, GGW-5, GGW-14, GGW-12, GGW-8, GGW-2, GGW-9, GGW-3, GGW-16, GGW-15, GOGAS RW-2, GOGAS RW-1, Energy Distribution RW-2, GTI-5, GTI-10, GTI-17, GTI-4, DS-4, DS-5, DS-19, DS-18, DS-3, DS-2, DS-1, DS-12, DS-14, DS-15. Any additional wells installed under this permit will also be sampled and analyzed for chlorinated hydrocarbons. Samples shall be collected during the first week of the last month of each quarter. The periods end in March, June, September and December.
- 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 October.
11. Monitor wells DS-19, DS-20, and DS-18 as well as any other wells installed under this permit will be sampled and analyzed for BETX by EPA Method 602 quarterly.
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 and no later than 60 days after sample collection, unless otherwise specified by the department. Any additional wells installed under this permit will also be sampled and analyzed for chlorinated hydrocarbons and BETX.
13. The conditions of permit to construct 86-392 and 87-440 are still applicable and are waived by this permit.

ML/mad

cc: Jake Strohman
Ray Ann Lambert, AG Office



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

June 22, 1989

Jerry Loghry
Fleischli Oil Co.
PO Box 847
Cheyenne, Wyoming 82001

RE: Permit Application 89-233
420 Central Ave. Facility
Cheyenne, Laramie County, Wyoming

Dear Mr. Loghry:

The Water Quality Division (WQD) has reviewed the proposed work plan for the referenced facility that accompanied a permit application to install monitoring wells. This application and subsequent permit has been assigned the number 89-233 and will also serve as the WQD reference number for the site. A copy of the permit is enclosed.

Please read the conditions of the permit before beginning the work so that Fleischli Oil Co. may be prepared to meet contingent requirements if it is necessary. Also please note that a quarterly monitoring report is to be submitted to the WQD. Monitoring requirements can be modified by the WQD depending on the initial results and/or results through a period of time. Typically, a minimum of one year is required to determine changes with changing subsurface conditions.

Please feel free to call this office at 307-777-7781 if you have any questions or comments on the permit or the site. Thank you for your time and attention.

Sincerely,

Robert L. Stites
Senior Analyst
Water Quality Division

RS/mad

PERMIT TO CONSTRUCT

PERMIT NO. 89-233
See Conditions

X New
Renewal
Modified

Fleischli 420 Central Avenue Facility

This permit hereby authorizes the applicant:

Fleischli Oil Company
2200 West Lincolnway
Cheyenne, WY 82001

to construct, install or modify series of monitoring wells according to the procedures and conditions of the application number 89-233. The facility is located in NW $\frac{1}{4}$, SW $\frac{1}{4}$, S5, T13N, 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: 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

6-29-89

Date of Issuance

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

Conditions for Permit to Construct 89-233

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 89-233. 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 shall be

Conditions to Permit 89-233 (continued)

implemented when the wells are constructed, installed and developed:

- 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is strongly recommended;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - i. 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
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. In the event that recoverable free product is present in any well, the WQD must be notified within 24 hours and a recovery system must be initiated within 45 days of the discovery. This may require additional monitor wells to delineate the free product plume. A "45 day" report that details items listed in condition nine of this permit plus all the status of obtaining all applicable state and local permits shall be submitted to the WQD within seven days of the end of the 45 day period. A permit to construct any pollution abatement or central system is required from the WQD. Local requirements will vary. Condition 9 otherwise applies.
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. Actions taken to mitigate any immediate hazards to human health and safety;
 - c. A site map showing physical features, well locations and elevations;

Conditions to Permit 89-233 (continued)

- d. Final location, construction details and logs of all monitoring wells;
 - e. Geohydrolic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - f. Water level and product thickness measurements;
 - g. Sample collection procedures;
 - h. Sampling analytical results;
 - i. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - j. A potentiometric surface map showing the direction of groundwater movement; and
 - k. Interpretation of data and conclusions including recommended remedial measures or the status of active 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 or measured quarterly for the parameters listed below:
- Static water levels; free product thickness; EPA Method 418.1 for TPH; and EPA Method 602 for BETX.
- 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 October, 1989.
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 other 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 June 15, 1989 proposal shall be adhered to.

RS/mad

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
FAX (307) 634-0799

Solid Waste Management Program
(307) 777-7752

Water Quality Division
(307) 777-7781

July 3, 1990

Mr. Rick Johnston
Gust and Johnston
2232 Dell Range Boulevard, Suite 203
Cheyenne, Wyoming 82009

RE: First Free Will Baptist Church Drainfield, DEQ/WQD Permit # 89-234

Dear Mr. Johnston:

I would like to thank you and your client for cooperating with the requirements of the construction permit. Your letter of July 2, 1990 requests modifications of the drainfield based on further investigation.

After review of this letter, the modifications proposed are approved. The design of the drainfield meets and in some ways exceeds state requirements. However the design suggested in the letter dated July 2, 1990 may not be reduced without prior review and approval. Any requests for modification must be submitted DEQ/WQD by the licensed engineer that prepared the original design.

Please coordinate inspection of the installation with the Laramie County Environmental Health Office at 638-8545. Thank you for your cooperation in properly coordinating modifications to the approved design.

Sincerely;

Louis B. Harmon PE
Southeast District Supervisor
Water Quality Division

LBH/mad

cc: First Free Will Baptist Church
c/o Russell Johnson
4110 Clark Street
Cheyenne, WY

Laramie County Environmental Health

R.F.

PERMIT TO CONSTRUCT

PERMIT NO. 89-234
SEE SPECIAL CONDITIONS

- New
- Renewal
- Modified

FIRST FREE WILL BAPTIST CHURCH

This permit hereby authorizes the applicant:

First Free Will Baptist Church
1/2 Russell Johnson, 4110 Clark Street
Cheyenne, Wyoming 82009

to construct, install or modify a septic tank and soil absorption field according to the procedures and conditions of the application number 89-234. The facility is located in the NE 1/4 Section 15 T14N R66W 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.

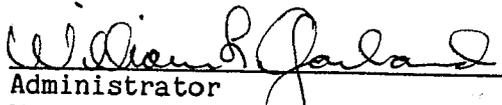
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

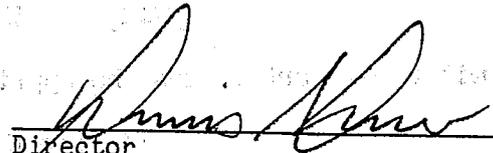
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

July 13, 1989
Date of Issuance

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

Special Conditions for Permit To Construct 89-234

When the drain field is constructed a test pit to a minimum depth of 10 ft shall be dug and a soil log prepared by a licensed engineer. This boring log must be submitted immediately to DEQ with a reference to permit number 89-234. If the soil is different from the top 4 feet then the drain field must be redesigned accordingly. This redesign must be submitted for approval before construction proceeds.

LH/jn

cc: Gust and Johnston
2232 Del Range Suite 203
Cheyenne, Wyoming 82009

PERMIT TO CONSTRUCT

PERMIT NO. 89-235
See Conditions

- X New
- Renewal
- Modified

Williams Natural Gas Facility

This permit hereby authorizes the applicant:

Williams Natural Gas Co.
P O Box 3288
Tulas, OK 74101

to construct, install or modify monitor well system according to the procedures and conditions of the application number 89-235. The facility is located in S16, T21N, R87W in the county of Carbon, 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.

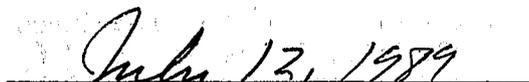
AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality



Date of Issuance

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

Conditions to Permit to Construct 89-235

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 89-235. 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 shall be

Conditions to Permit 89-235 (continued)

implemented when the wells are constructed, installed and developed:

- 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - h. 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
 - i. 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 45 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. Geohydrologic 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;

Conditions to Permit 89-235 (continued)

- 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:

EPA 418.1 (TPH) and EPA 602 (BETX) or EPA 502 (BETX)

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 August.

SCF/mad

cc: Jake Strohmman

RF

PERMIT TO CONSTRUCT

PERMIT NO. 89-236
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Shaffer Drilling Facility

This permit hereby authorizes the applicant:

Shaffer Drilling Facility
1080 North Robertson Road
Casper, Wyoming 82604

to construct, install or modify groundwater monitoring wells according to the procedures and conditions of the application number 89-236. The facility is located in NE, NE, Section 3, T33N, R80W 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.

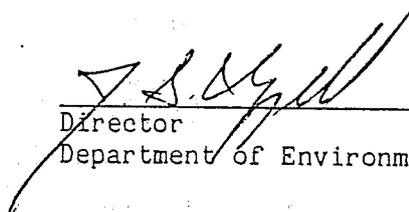
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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

6/29/89

Date of Issuance

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

Conditions for Monitoring Wells

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 89-236. 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 89-236 (continued)

6. In addition to the well construction information submitted with the permit application, the following items relating to well construction shall be implemented when the wells are constructed, installed and developed:
 - 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is strongly recommended;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - i. 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
 - j. 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. Geohydrologic 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 89-236 (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 quarterly for the parameters listed below:
- All EP TOX metals and Chromium (Total) by EPA method 218.3.
- 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 August, 1989.
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.
12. Samples are to be filtered at point of collection.

RL/jt

cc: Jake Strohman

RF

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 89-237

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),

The Judy Company
9133 Woodend Road
Kansas City, KS 66111

is authorized to operate

a mine void grouting project

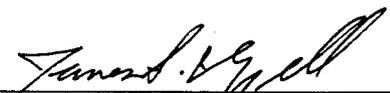
according to procedures and conditions of the application 89-237 and requirements and other conditions of this permit.

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

June 29, 1989
Date



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

June 30, 1989
Date

A. Discharge (Injection) Zone and Area of Review

The Area of Operations for this permit consists of portions of downtown Rock Springs, Wyoming located in the following legal description:

Township 19 North, Range 105 West, Sixth P.M.
Section 36: SW1/4

Township 18 North, Range 105 West, Sixth P.M.
Section 1: NW1/4

The Area of Review has been established to be equal to the above description.

Injection into mine voids in coal seam Number 7 is authorized anywhere within the above Area of Review. Injection into any other void space that may be detected above this seam, whether that void is caused by subsidence or not, is authorized. Injection into any void space less than 30 feet deep from the surface is not authorized.

B. Groundwater Classification

Information supplied by the applicant indicates that the #7 coal seam is dry.

C. Authorized Operations

The permittee is authorized to inject a mixture of portland cement, sand, gravel, fly ash, sodium silicate, calcium chloride, plasticizers and water in any proportion required into mine voids in the Number 7 coal seam of the Rock Springs Aquifer. Grout may also be injected into any void located above the deepest of these seams provided that the void is not specifically constructed for a purpose and being used for that purpose. (This permit does not authorize the filling of sewer lines, basements, storm sewers, or manholes, etc.) It is not necessary to determine if a void is caused by subsidence, natural conditions or manmade activity before grouting, as long as the void is more than 30 feet from the surface.

Food grade propylene glycol may be added to the grout if necessary. Rhodamine dye may be injected along with the grout or separately as required to determine migration pathways between water withdrawal wells and injection wells. Celbex 653 and Mico 88 Sulfonated Naphthalene may be used as additives to the grout.

As many as 100 wells may be constructed under this permit, but this permit shall be limited to the single contract between LQD and The Judy Company and any extensions to that contract.

Pressures at the injection wells shall be controlled so that damage is not caused to existing structures in Rock Springs. Bottom hole pressures shall not exceed 35 psi or .50 psi per foot of depth. If pressures in excess of this are required, the permittee shall calculate the bottom hole pressures and submit the results to Water Quality Division prior to using these pressures. In no case shall the parting pressure of the coal seam be exceeded at any time during the grouting operation. During certain phases of the operation, wellhead pressures as high as 100 psi may be required to overcome the

flow resistance of the grout. The permittee shall be solely responsible for the maintenance of all surface lines and injection tubing that operate at these pressures.

No other use of these injection wells is authorized. Specifically, no waste of any description whatsoever, whether or not it is listed hazardous waste, may be injected into any of these wells. The only substance which may be injected is grout that has been specifically formulated to fill the mine voids.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. The permit indicates only that the standards 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 under this permit.

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:

The grout pump system will be monitored through use of pressure gauges and flow meters. Monitoring boreholes may be used to estimate subsurface grout movement. The bottom hole pressure for each hole shall be calculated prior to placing grout. The bottom hole pressure shall be controlled so that it does not exceed .50 psi per foot of depth in excess of normal hydrostatic pressure at that depth.

G. Requirements for Monitoring the Discharge

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

Injection pressure shall be monitored continuously to prevent fracturing of the confining strata. Injection volume shall be monitored and recorded for each injection well.

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 recurrence 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.

Public notice is not required prior to issuance of this permit.

Existing regulations do not require public notice of the permit review or request for public comment every 10 years for this discharge.

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:

Injection tubing shall have a working strength by specification (or by test if it is used tubing) of at least 500 psi before it is used in any pressure application. Tubings not meeting this requirement shall be limited to 50 psi in any application.

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:

All wells shall be abandoned by filling the hole with cuttings to a depth of no more than 15 feet. Above this, a 10 foot plug of concrete shall be emplaced as shown on the application documents. The top of the hole shall be plugged to match the surroundings.

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.

The permittee has assured sufficient financial strength to insure that all holes drilled under this permit will be properly plugged.

O. Special Measures the Director Finds Necessary:

The operations authorized under this permit shall commence within one year of the issue date of the permit, or the permit will be invalid.

P. Special Permit Conditions:

Pollution or waste which migrates into an aquifer containing a usable ground-water 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.

xc: Stan Bernard, LQD

R7

LAND APPLICATION PERMIT

PERMIT NO. 89-238
See Conditions

Casper Station

This permit hereby authorizes the applicant:

Platte Pipe Line Company
P. O. Box 2330
Casper, WY 82602

to land apply fresh water with crude oil sheen acquired from testing processes. The application site is located in Section 35, T34N, R80W in the county of Natrona, 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 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 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 application site at the above location, for the purpose of compliance with the provisions of this permit.

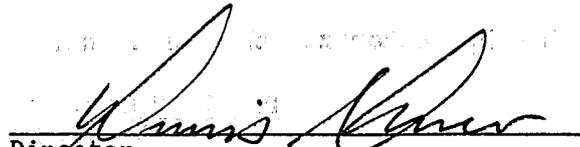
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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.

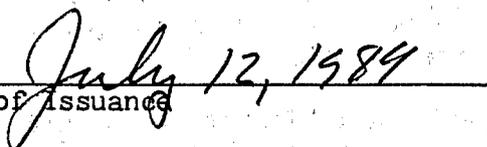
AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality



Date of Issuance

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

Conditions to Land Application Permit #89-238

1. Wastewater 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 for vehicular application or 15 percent for spray irrigation or irrigation by gated pipe on the contour. Vegetated areas of the site shall not be spray-irrigated where possible plant leaf injury may result from salt residue.
3. Wastewater 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, 122 West 25th, Herschler Building, 4 West, Cheyenne, Wyoming 82002, phone number 777-7781, 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 1 to April 30.

LBH/mad

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 89-239R

Jenny Lake Comfort Station WWTP
(Name of Facility)

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

Grand Teton National Park

P.O. Drawer 170

Moose, WY 83012

to construct septic tank and leachfield with dosing siphon according to the procedures and conditions of the application No. 89-239R. The facility is located in Section 25, T44N, R116W 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.

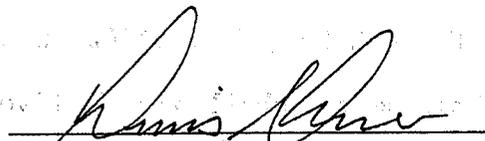
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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



Date of Issuance

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

RF

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 89-240R

UTI Septic Tank/Evaporation Pond
(Name of Facility)

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

Universal Transport, Inc.

P.O. Box 1538

Rock Springs, WY 82902

to construct a sewage collection line, septic tank and evaporation pond according to the procedures and conditions of the application No. 89-240R. The facility is located in NW 1/4 Section 18 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.

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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.

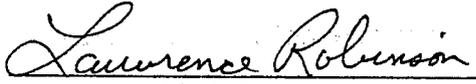
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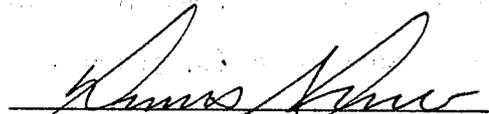
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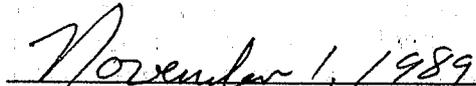
AUTHORIZED BY:


Administrator

for 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.

PERMIT TO CONSTRUCT

PERMIT NO. 89-241
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

Aspen No. 1

This permit hereby authorizes the applicant:

Deerwood Ranch Ltd.
599 State Highway 11
Laramie, Wyoming 82070

to construct, install or modify septic tank and drainfield system for 12 cottage sites according to the procedures and conditions of the application number 89-241. The facility is located in Section 10, T15N, R77W in the county of Albany, 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.

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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: Southeast 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.

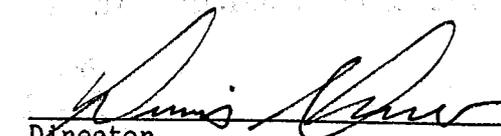
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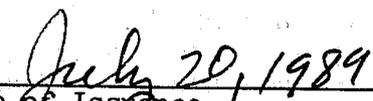
AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality



Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #89-241

1. Under the provisions of Chapter XI, Section 24, an operation and maintenance manual is required. This permit is being issued for one septic tank serving one cottage on each of 12 lots with one common drainfield. The design is approved without change, but measures need be taken to insure installation and operation measures conform with the design over time. One way to do this would be with an operation and maintenance manual that becomes a covenant to each lot sold. The operations manual shall include a continuously updated as-built drawing of the entire system. This manual must be approved by DEQ before the first septic tank is placed in operation as a condition to this permit.
2. The developer and the successors, the homeowners association, need to be able to protect the system from an individual owner that fails to maintain his septic tank. Therefore it is recommended that covenants be included to allow entry onto the individual's lot to perform necessary maintenance to the septic tank and to monitor flow to the system.
3. This construction permit is only good for five years. After that time it will have to be modified before additional septic tanks can be added to the system.
4. The county has been informed by the State of the arrangements that this permit allows for installation of the individual septic tanks. The county has been requested to inspect installation even though this permit is issued by the state. The operations manual should require notification be made to the Albany County/City of Laramie Health Officer each time construction is scheduled.

M

PERMIT TO CONSTRUCT

PERMIT NO. 89-242
SEE SPECIAL CONDITIONS

New
Renewal
X Modified

PARK MEADOWS HOLDING TANK

This permit hereby authorizes the applicant:

Park Meadows Landowners Association
708 Baldwin
Cheyenne Wyoming 82001

to construct, install or modify a revision of monitoring requirements for holding tank according to the procedures and conditions of the application number 89-242. The facility is located in Section 6, T13N, R71W in the county of Albany, 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: Southeast 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.

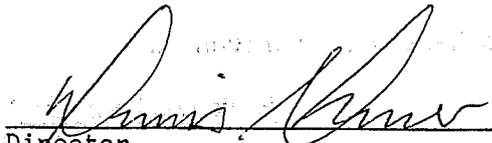
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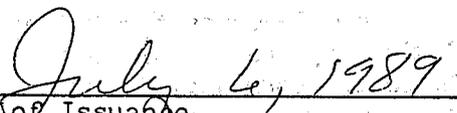
AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality



Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #89-242

1. This permit is a modification of the monitoring requirements established by Permit 86-116.
2. The depth of waste in the holding tank should be measured in May and September of each year and recorded in the log maintained by the Landowners Association.
3. The tank should be pumped out at least every other year regardless of the amount of waste present. The waste removal should be recorded in the log.

LBH/jn

PERMIT TO CONSTRUCT

PERMIT NO. 89-243

X New
Renewal
Modified

Moss Residence Septic Tank

This permit hereby authorizes the applicant:

Bentsen D. Moss
P.O. Box 2872
Cheyenne, WY 82003

to construct, install or modify single residence septic tank and drainfield according to the procedures and conditions of the application number 89-243. The facility is located in Tract 13, North Hills Subdivision, Section 8, 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: Southeast 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 R. Gaudin
Administrator
Water Quality Division

Annis Jones
Director
Department of Environmental Quality

July 7, 1989
Date of Issuance

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

LBH/jt

89-244

R7



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

Department of Environmental Quality

Herschler Building ● 122 West 25th Street ● Cheyenne, WY 82002

ADMINISTRATION (307) 777-7758 FAX 777-7682	ABANDONED MINES (307) 777-6145 FAX 634-0799	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7368 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 634-0799	SOLID & HAZARDOUS WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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February 24, 1994

Mr. Harold Colby
City of Laramie
P.O. Box C
Laramie, WY 82070

RE: Remediation of PCE-Contaminated Groundwater - City Street Department Shops

Dear Mr. Colby:

The Department of Environmental Quality, Water Quality Division has reviewed the above referenced document submitted by Weston Engineering. Comments and requirements are summarized on the enclosed Groundwater Pollution Control review form. Please contact me directly if you have any questions.

Sincerely,

Don Fischer
Senior Analyst
Water Quality Division

DF/nc 40878.LTR

Enclosure: Groundwater Pollution Control Review Form

cc: Kevin Frederick, Supervisor, GPC Program
Todd Jarvis, Weston Engineering

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

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION

Herschler Bldg., 4 West
Cheyenne, Wyoming 82002

PROJECT: CITY OF LARAMIE STREET DEPARTMENT SHOPS
REMEDATION PROPOSAL FOR PCE CONTAMINATION

APPLICANT: CITY OF LARAMIE
P.O. Box C
Laramie, WY 82070

ENGINEER/
CONSULTANT: Mr. Todd Jarvis
Weston Engineering, Inc.
P.O. Box 6037
Laramie, WY 82070

WATER QUALITY DIVISION REFERENCE (PERMIT) NUMBER: 89-244

EXISTING NEW AS BUILT

TITLE: Remediation of PCE-Contaminated Groundwater - City of
Laramie Street Department Shops

PLANS SPECS PROPOSAL REPORT

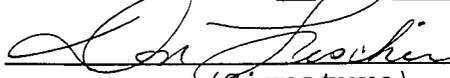
DATE ON PROPOSAL/PLANS/REPORT: October 13, 1994

IS THIS PROPOSAL SUBMITTED PURSUANT TO:

"CONDITIONS" TO ANY WQD PERMIT? NO YES

A LOV, NOV OR OTHER ENFORCEMENT? NO YES (3/89)

REVIEWING GEOLOGIST:



(Signature)

REVIEWING ENGINEER:

N/A

(Signature)

DATE OF THIS REVIEW: 2/24/94

COMMENTS: GROUNDWATER SECTION

1. SUMMARY OF EXISTING CONTAMINATION:

1.1 CONTAMINANT OF CONCERN

The contaminant of concern at the Laramie Street Department Shop is perchlorethylene (PCE). Concentrations of PCE from the last sampling event (May, 1992) range from 3 to 36 micrograms/liter in groundwater from the monitoring wells at this site.

1.2 SOURCE OF CONTAMINATION

The source of PCE at this facility remains unknown. Possibilities for a source include historical disposal at the site and fire suppression of a building in 1947. According the Shop Superintendent, PCE has not been used at the facility in the last 15 years, and probably was never used. A 1992 investigation discounted a nearby laundromat-dry cleaning service as a source for the PCE.

1.3 GEOLOGY/HYDROGEOLOGY

The geology beneath the city shops is a weathered bedrock consisting of gypsiferous siltstones, sandstones and claystones. The gypsum is frequently dissolved, creating vertical and horizontal cavities commonly referred to as karst. Water extracted from this area will come primarily from these karst features. The depth to groundwater at this site is approximately 5 feet.

1.4 EXTENT OF CONTAMINATION

Soil

Nine locations, including reasonably expected source areas, were tested during the soil gas survey. The survey determined that PCE was not detected in the unsaturated zone and no source area was identified.

Groundwater

The extent of contamination was determined by driving a Hydropunch™ with a hollow-stem auger rig, followed by obtaining a sample of groundwater in a teflon bailer. The samples were then analyzed for headspace above water using a gas chromatograph. The results of these tests coupled with results of laboratory analysis of water from the monitoring wells shows that the extent of PCE contamination exists beyond the boundaries of the Street Department property.

1.5 AQUIFER CLASSIFICATION

Aquifer classification must be established by the Water Quality Division. James M. Montgomery Engineering does not have the authority to determine aquifer classification, although they can recommend one. The department does concur that the aquifer beneath this site is not suitable for domestic use based upon data supplied.

Parameter	Concent. (mg/l)	Class I Standard	Class II Standard	Class III Standard
TDS	3750	500	2000	5000
Boron	1.08	0.75	0.75	5.0
Sulfate	1700	250	200	3000

Although the aquifer is not suitable for domestic use, it must be protected for its intended use and uses for which it is suitable, pursuant to Wyoming Water Quality Rules and Regulations, Chapter VIII. Chapter VIII, Section 4 (d) (6) states, "underground water of Class I, II, or III shall not contain any biological, hazardous, toxic or potentially toxic materials or substances in concentrations or amounts which, based upon the latest available scientific information and as determined by the Administrator, will impair this water for its use suitability or which may contribute to a condition in contravention of groundwater quality standards or to any toxic or hazardous effect on natural biota.

1.6 EXISTING USE OF GROUNDWATER

The well survey indicated that a few wells are locally used for domestic water supply; however, these wells are deep completions, drawing water from the Chugwater aquifer and deeper Casper Formation. Dwellings in the immediate vicinity of the City Shops derive drinking and irrigation water from city taps. Consequently, there are no known or potential target populations or other environmental receptors of the PCE contaminated groundwater.

2. CONCLUSION OF ADEQUACY OF WORK COMPLETED TO DATE:

REMEDIATION ALTERNATIVES

2.1 PUMP AND TREAT STUDY

Pump and Treat is not a viable alternative for remediation of this site. The hydrogeology is controlled by gypsum solution karst. Water extracted from this area during pumping comes primarily from the karst features and carries little if any contamination. Aside from the karst features, the site generally has low permeabilities. The low permeability in the area was demonstrated during the pump test of MW #1-C. During this test, no drawdown was observed in MW #1-D, which is located at a distance of 50 feet. Contamination is concentrated in areas of lower permeability. The following table shows the inverse relationship between the hydraulic conductivities established from data from the pump tests and PCE concentrations at the site. The pump test data indicate that the PCE contamination is concentrated in areas of lower permeability.

MONITOR WELL	PCE CONCENTRATION $\mu\text{g/l}$ (8/91)	HYDRAULIC CONDUCTIVITY (GPD/FT ²)	TRANSMISSIVITY (GPD/FT)
MW-1C	2.8	605	3000
MW-1D	36.1	50	230
MW-1E	29.4	48	275

2.2 PUMP AND TREAT WITH SURFACTANT'S FEASIBILITY STUDY

The City of Laramie contracted INTERA to address the possibility of using chemically enhanced solubilization (CES) at the site. INTERA dismissed the site for the use of this process due to the low concentrations of PCE. INTERA stated that the primary benefit of the process is that it addresses the DNAPL pools that form on top of impermeable layers. In the case of the Laramie site, the low PCE concentrations suggest that no such pools exist. As a general rule, if concentrations of 1 to 10 percent of the solubility of the particular DNAPL in water are observed, the likelihood of DNAPL being present as either pools or vertical fingers is high. Since the aqueous solubility of PCE is 150 milligrams/liter, concentrations

of 40 micrograms/liter at this site represents only .02 percent of the aqueous solubility. This is not indicative of a large amount of residual contamination.

2.3 BIOREMEDIATION TREATABILITY STUDY

Active bioremediation is the only treatment alternative that could conceivably be applied at the site, albeit at great expense. A bench scale study performed by International Remediation Corporation (IRC) found that indigenous bacteria in groundwater could be stimulated to slightly degrade the PCE with the addition of proprietary catalysts. However, for bioremediation to be feasible at the site three steps must be taken:

- 2.3.1 adjustment of soil and groundwater pH. Soil pH at the site is 8.1, while groundwater pH is 6.3. The recommended pH range for bioremediation is 7.0 +/- 0.5 pH units;
- 2.3.2 elimination of 2 strains of indigenous bacteria;
- 2.3.3 increasing the populations of the PCE degrading bacteria.

IRC and EarthSense, another firm contracted by the city to study the potential for bioremediation, indicated that further studies were unwarranted and infeasible due to the low PCE concentrations and hydrogeologic conditions at the Laramie site.

3. REQUESTS/REQUIREMENTS/RECOMMENDATIONS:

3.1 STATUS OF SITE

Due to the hydrologic nature and low concentrations of PCE at the site, the department does not require further remediation studies at this time. Additional remediation efforts may be required at a future date with technological advances in PCE remediation techniques. The department can not close a site with contamination that exceeds the Wyoming groundwater quality standard (Maximum Contaminant Level (MCL)) established for that parameter. The MCL for PCE is 0.5 micrograms/liter.

3.2 MONITORING REQUIREMENTS

The City of Laramie Street Department Shops shall sample and analyze groundwater from MW-1E for PCE on an annual

basis. The report containing the analytical results from the groundwater monitoring of MW-1E shall be submitted to the following address by May 1 of each year, beginning May 1, 1994:

WDEQ/WQD
SE District Groundwater Section
Groundwater Pollution Control Program
Herschler Building 4W
122 W. 25th Street
Cheyenne, WY 82002

The remaining on-site monitoring wells are located in areas where they could be damaged (driveways, alleys, etc.). These wells (MW-1B, MW-1C, and MW-1D) shall be maintained until at least May 1, 1995, at which time the City may submit a plan and schedule to plug and abandon in accordance with Chapter XI, Part G of Wyoming Water Quality Rules and Regulations.

END OF REVIEW

DF/nc 40877.LTR

PERMIT TO CONSTRUCT

PERMIT NO. 89-244

See Conditions

X New
Renewal
Modified

City of Laramie Street Department Shop

This permit hereby authorizes the applicant:

City of Laramie
P O Box C
Laramie, WY 82070

to construct, install or modify soil borings and groundwater monitoring according to the procedures and conditions of the application number 89-244. The facility is located in SW $\frac{1}{4}$, S28, T16N, R73W 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.

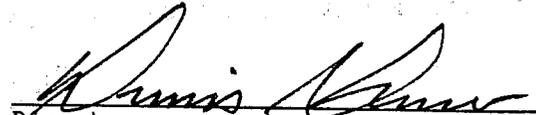
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

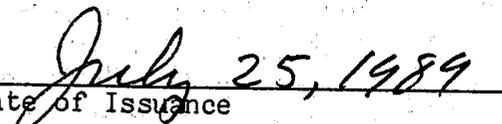
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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


Date of Issuance

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

Conditions to Permit to Construct #89-244

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 89-244. 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 shall be

implemented when the wells are constructed, installed and developed:

- 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is strongly recommended;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - i. 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
 - j. 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. Geohydrologic 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;

Conditions to Permit 89-244 (continued)

- 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.

DM/mad

cc: Jake Strohmman



JIM GERINGER
GOVERNOR

Department of Envi

Herschler Building • 122 West 25th Str

ADMINISTRATION (307) 777-7758 FAX 777-7682	ABANDONED MINES (307) 777-6145 FAX 634-0799	AIR QUALITY (307) 777-7391 FAX 777-7682	INDUSTRIAL SITIN (307) 777-7368 FAX 777-6937
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8/15/95

89-244

Review for
Conditions

Permitted in
July of 1989.

B.

ER QUALITY
7) 777-7781
X 777-5973

August 15, 1995

Mr. Harold F. Colby
Street Superintendent
City of Laramie
P.O. Box C
Laramie, WY 82070

**Re: 'No Further Action At This Time' Status
Street Department Shops
955 N. 4th., Laramie, WY**

Dear Mr. Colby:

The Water Quality Division (WQD) has reviewed the Weston Engineering letters (April 5, 1995 and May 8, 1995). The letters presented the results of sampling of Well MW-1E on March 16, 1995 and requested permission to abandon the other three monitoring wells and Well MW-1E. Comments, recommendations and/or requirements are summarized on the enclosed Groundwater Pollution Control (GPC) Program review form.

Please contact Mr. Phil Stump, WDEQ/WQD, Cheyenne (777-5449) should you have any questions regarding this review.

Sincerely,

Phillip Stump
Phillip Stump
Senior Environmental Analyst
Water Quality Division

PBS/b/53567.ltr

cc: Kevin Frederick, Supervisor, Groundwater Pollution Control Program

Todd Jarvis, Weston Engineering, Inc.

enclosure: GPC Program Review Form

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

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

PROJECT: **Remediation of PCE-Contaminated Groundwater
City of Laramie Street Department Shops**

APPLICANT: **Harold F. Colby
Street Superintendent
City of Laramie
P.O. Box C
Laramie, WY 82070**

ENGINEER/
CONSULTANT: **Todd Jarvis
Weston Engineering, Inc.
P.O. Box 6037
Laramie, WY 82070**

WATER QUALITY DIVISION REFERENCE (PERMIT) NUMBER: **89-244**

EXISTING NEW AS BUILT

TITLE: Well Abandonment, 'No Further Action at this Time'

PLANS SPECS PROPOSAL REPORT

DATE ON PROPOSAL/PLANS/REPORT: **April 5, 1995 and May 8, 1995**

IS THIS PROPOSAL SUBMITTED PURSUANT TO:

'CONDITIONS' TO ANY WQD PERMIT? NO YES

AN LOV, NOV OR OTHER ENFORCEMENT? NO YES (3/89)

REVIEWING PERSONNEL: Phillip Stump, Senior Environmental Analyst

DATE OF THIS REVIEW: August 15, 1995

ACTION: **Authorized for 'No Further Action at this Time'**

COMMENTS: GROUNDWATER SECTION

I. SUMMARY OF EXISTING CONTAMINATION:

This site has been the subject of a number of reports since 1989. The concentrations of tetrachloroethene (PCE) at monitoring well MW-1E have varied between 18 ppm. and 40 ppm. during since 1989. During the annual sampling events in 1994 and 1995, the PCE concentration was 24 ppm.

The potential source of the PCE contamination at this site remains unknown. Historical aerial photographs indicate that the site may have served as a disposal or landfill area in the past. Trenching in the area has excavated old bottles, automobile bodies, and various other junk. A bottle marked "dry cleaning" fluid was also removed. Fire extinguishers were used to douse a fire in the late 1940's and some old fire extinguishers contained PCE chemicals. According to the Shop Superintendent, PCE has not been used at the facility in the last 15 years, and probably was never used. A 1992 investigation discounted a nearby dry cleaning facility as a source of the PCE.

The lithology at the site consists of a weathered bedrock with gypsiferous silts, sands, and clay. Dissolution of the gypsum has formed cavities in the rock or karst formations. The depth to groundwater is approximately 5 ft. and the groundwater flows through karst areas.

Soil gas surveys in the area did not detect PCE and no source areas were identified. Groundwater investigations in the area identified that the extent of PCE contamination extends about 1 1/2 blocks to the N. and S. and approximately 1/2 block to the east and to the west of the City Shops building.

Ambient groundwater samples of the aquifer have indicated that the water is not suitable for domestic use: total dissolved solids (TDS) = 3750 mg/l and sulfate = 1700 mg/l. Well surveys of the area only identified a few deeper wells in the Chugwater and Casper formations. The residential areas nearby are connected to the city water system.

Three remediation alternatives were evaluated for this facility: pump and treat, pump and treat with surfactants, and bioremediation. The pump tests indicated that the monitoring well located near a karst area (MW-1C) has a higher yield (6 gpm) than the other monitoring wells that were tested (0.75 and 1.25 gpm, in MW-1D and MW-1E, respectively.) Apparently, the PCE contamination in the higher yielding karst areas has been reduced by of the movement of groundwater and the PCE contamination remains in the less permeable areas.

The City is requesting that WQD grant site closure so that MW-1E can be plugged and abandoned along with the other three onsite wells. The reasons for requesting site closure were stated as follows:

1. "The ever-increasing risk of monitoring well damage and associated potential contamination at the site, due to the location of the wells in a high traffic area utilized by heavy machinery;
2. The technical impracticability of complete removal of PCE from the karst aquifer;
3. The apparent lack of value of the monitoring wells for the Third Street Remediation Project;
4. The DEQ-initiated implementation of a groundwater management plan for the affected area in conjunction with the State Engineer's Office."

II. REQUESTS/REQUIREMENTS/RECOMMENDATIONS:

1. The WQD's review dated February 24, 1994, requested that a plugging and abandonment plan for the three monitoring wells (MW-1b, MW-1C, and MW-1D) be submitted. WQD approved of the plugging and abandonment plan that was submitted in the Weston Engineering letter (April 5, 1995). The Weston Engineering letter (June 15, 1995) documented the proper abandonment of the three referenced monitoring wells on June 14, 1995. The Weston Engineering letter (August 11, 1995) documented that no public comments were received and requested permission to properly plug and abandon MW-1E.
2. In WQD's review dated February 24, 1994, WQD acknowledged the impracticability of remediating the PCE contamination.
3. The WQD GPC Program has confirmed with the UST/LUST Program that the investigations performed on the 3rd St. Project did not measure any PCE groundwater contamination above EPA Maximum Contaminant Levels (MCLs). The UST/LUST Program also concurred that the remediation of PCE was not technically practical because of the site specific characteristics at this facility. This confirmation was required to verify that remedial action requirements are consistent between WQD Programs.
4. The City of Laramie published a Public Notice in The Laramie Daily Boomerang, July 9, 1995, that summarized WQD's proposal to grant 'No Further Action at this Time' status to this facility. Since no comments were received from the public during the 30 day comment period, WQD can proceed with this proposal.
5. WQD grants permission to properly plug and abandon Well MW-1E. Since WQD can not grant complete site closure, WQD approves that the status of the site is 'No Further Action at this Time.' WQD's records of this facility will remain on file, but the files will remain inactive. The site may be moved to an active status because of a future occurrence; such as, if future technological advances and potential water needs warrant the remediation of the existing contamination or future investigations uncover significant PCE contamination on adjacent properties, etc..

END OF REVIEW

89-245

GERBER

Nichols Home

6/21/89

UR

8/21/89

1-14-89

BS

7/24/89

AW

Same as 89-293

(copy of card in file)

16

PERMIT TO CONSTRUCT

PERMIT NO. 89-246
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

PP&L Wyodak Plant

This permit hereby authorizes the applicant:

Pacific Power & Light Co.
48 Wyodak Road
Gillette, WY 82716

to construct, install or modify monitoring well according to the procedures and conditions of the application number 89-246. The facility is located in NE $\frac{1}{4}$ NE $\frac{1}{4}$ S28, T50N, R71W in the county of Campbell, 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.

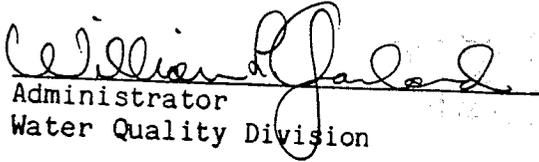
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

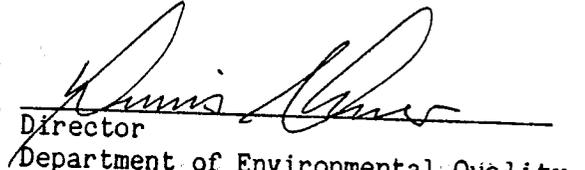
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer, 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

September 8, 1989
Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT #89-246

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 89-246. 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 shall be implemented when the wells are constructed, installed and developed:
 - 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. Factory slotted casing is recommended for the perforated interval;
 - 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. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - g. A protective casing and locking cap is strongly recommended;
 - h. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected; and
 - i. 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.
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 site map showing physical features, well locations and elevations;
 - b. Final location, construction details and logs of all monitoring wells;
 - c. Geohydrologic maps and/or cross sections that clearly describe the subsurface distribution of geological materials and groundwater occurrence;
 - d. Water level and product thickness measurements;
 - e. Sample collection procedures;

Conditions to Permit 89-246 (continued)

- f. A map delineating the extent of the subsurface contamination including free product, soil and dissolved groundwater contamination and concentrations;
 - g. A potentiometric surface map showing the direction of groundwater movement, pond water level elevations; and
 - h. 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:

Nitrate as N	Cadmium
Nitrite as N	Chromium
Oil and Grease	Cobalt
Sulfate	Copper
Chloride	Iron
Total Dissolved Solids	Lead
Specific Conductance	Selenium
pH	Vanadium
Aluminum	Zinc
Arsenic	Uranium
Boron	Mercury

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.

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

RS/nc

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

July 18, 1989

Gordon Strom
PP&L Wyodak Plant
48 Wyodak Road
Gillette, Wyoming 82716

RE: Review of Permit Application No. 89-246
Wyodak Plant
Campbell County, Wyoming

Dear Mr. Strom:

The Water Quality Division (WQD) has reviewed the permit application to replace groundwater monitor well AGW-1 with another well nearby. This is not presently authorized for construction due mainly to the need for some further information. This is outlined in the following comments:

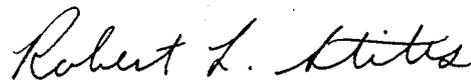
1. The submitted location plan is sufficient to illustrate the planned location of the well. A diagram of planned well construction, which can be a schematic for the purpose of the application, must be included in the application package. An example has been enclosed for your reference.
2. Also needed are specifications for well construction that detail total depth, depth to groundwater, planned screened intervals, filter pack, seal type and placement, and surface seal (as applicable). This may be included in the diagram for well construction or separately. A letter format is also acceptable.
3. Please submit hydrogeological information pertaining to the existing AGW-1 or ash pond area so that the WQD can evaluate the suitability of screened intervals and the potential for cross-connecting separate aquifers, if they exist. A hydrogeological cross section would be helpful, boring logs may be sufficient.
 - 3.1 This information is also needed to evaluate the proposed plugging method for the existing well. The plugging and abandonment must meet the new minimum requirements and procedures in Part G of Chapter XI, Wyoming Water Quality Rules and Regulations. A copy of Part G is enclosed for your reference.

Gordon Strom
July 18, 1989
Page 2

A complete application package consists of three copies each of the completed application form; plans (location and well construction); and specifications. Photocopies are acceptable but an original signature and date are required on at least one of the application forms.

The WQD requests that these items be addressed within 30 days of your receipt of this letter. Please feel free to call this office at 307-777-7781 if you have any questions or comments. Thank you for your time and attention.

Sincerely,



Robert L. Stites
Groundwater Engineering Evaluator
Water Quality Division

RLS/jn

Enclosures: Part G
Well Permitting Checklist

cc: Jake Strohman, DEQ/WQD
Susan Fields, DEQ/WQD
Carol Pfarr, DEQ/WQD

R7

PERMIT TO CONSTRUCT

PERMIT NO. 89-247
SEE SPECIAL CONDITIONS

- X New
- Renewal
- Modified

Cathcart Septic Tank and Drainfield

This permit hereby authorizes the applicant:

Richard and Ramona Cathcart
1046 Rangeline Road HJR
Cheyenne WY 82007

to construct, install or modify septic tank and drainfield according to the procedures and conditions of the application number 89-247. The facility is located in Section 11, T13N, R64W 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: Southeast 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.

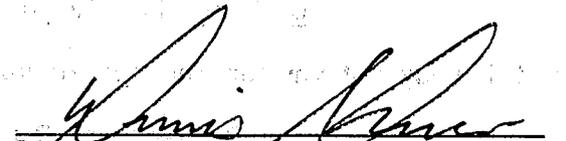
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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.

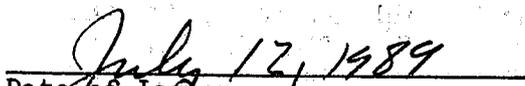
AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality



Date of Issuance

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

CONDITIONS TO PERMIT TO CONSTRUCT TO #89-247

1. Laramie County Environmental Health, 1710 Snyder Avenue, Cheyenne, Wyoming, Phone Number 638-8545 must notified 48 hours before construction begins. At that time provide Environmental Health with this permit number and the address and location.
2. Laramie County licensed installers and haulers must be used for installation and maintenance.

LBH/mad

cc: Laramie County Health Department

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 89-248R
* Conditions on Permit

Wilson Sinclair Service Station
(Name of Facility)

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

Robert Lee Lundy

P.O. Box 18

Wilson, WY 83014

to install 3 groundwater monitor wells according to the procedures and conditions of the application No. 89-248R. The facility is located in SW 1/4 SW 1/4 Section 22, 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.

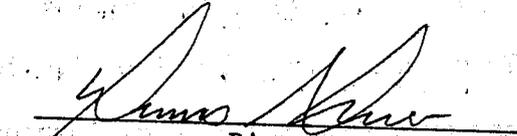
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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.

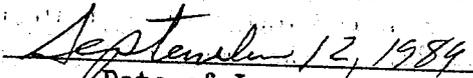
AUTHORIZED BY:



Administrator
Water Quality Division



Director
Dept. of Environmental Quality



Date of Issuance

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

Conditions for Monitoring Wells

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 89-248R. 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. 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. 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;
 - b. 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;
 - c. 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;
 - d. Factory slotted casing is recommended for the perforated interval. Slotted casing shall extend 1-2 feet above highest expected groundwater table;
 - e. A top and bottom cap shall be installed to prevent sediment and surface water from entering the well;
 - f. A protective casing and locking cap is strongly recommended;
 - g. The monitoring well shall be developed by the use of a pump or bailer so that representative groundwater samples can be collected;
 - h. Protective casing shall be cemented into a sloping concrete cap; and

- i. 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 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;
 - 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 Lander office by the last day of the month following the end of October 1989. The first set of results are due by the last day of November 1989.
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



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR



Department of Environmental Quality

250 Lincoln Street • Lander, Wyoming 82520

Air Quality Division
(307) 332-3144

Land Quality Division
(307) 332-3047

Solid Waste Management Program
(307) 332-6924

Water Quality Division
(307) 332-6755

ARCHIVES

April 2, 1991

City of Worland
c/o Mr. Sherman Allred
Donnell & Associates
P. O. Box 226
Worland, WY 82401

RE: "As-Built" Authorization
Tharp-Ilg Water Line
WQD Ref No. 89-249R

Dear Sherman:

This letter is in response to the above referenced facility. After reviewing the revised plans, they appear to meet the minimum design standards for the State of Wyoming. A "Permit to Construct" cannot be issued since the facility has already been built. Please retain this letter as verification that the facility has been accepted by the Wyoming Department of Environmental Quality.

Sincerely,

Steve Gerber, P.E.
Northwest District Supervisor

SG/jyi

enclosure



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

RECEIVED

FEB 7 1991



WATER QUALITY DIVISION

Department of Environmental Quality

210 Lincoln Street • Lander, Wyoming 82520

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

CERTIFIED P 584 341 711

February 5, 1991

City of Worland
c/o Mike Donnell, Donnell & Associates
P. O. Box 388
Worland, WY 82401

Dear Mike:

Our records indicate your application for a permit to construct has not been resubmitted to this office for review and authorization. The specific information for your proposed project are:

Facility Name: Tharp & ILG Water Extension

DEQ/WQD Reference Number: 89-249

Engineering Consultant: Robert Shelton

DEQ/WQD Review Engineer: Steve Gerber

Date of DEQ/WQD Review: July 14, 1989

Please indicate below the status of your application and return this form to our office.

- The application will not be resubmitted as the proposed project has been canceled.
- The application will be resubmitted within thirty (30) days.
- The facility has been constructed, or is under construction. As-built construction plans and specifications will be submitted within thirty (30) days.
- Other Remarks: _____

You are reminded that the construction, installation, or modification of any sewage system, treatment works, disposal system, or other facility capable of causing or contributing to pollution, or public water supply system without a permit to Construct is a violation of Wyoming State

City of Worland
Tharp & ILG Water Extension
February 5, 1991
Page 2

Statutes, and is punishable with a fine not to exceed \$10,000 for each day of violation. Unless the Water Quality Division review engineer receives information concerning the status of this project within fifteen (15) days of the receipt of this letter, follow-up action will be taken.

Sincerely,



Steve Gerber, P.E.
Northwest District Supervisor

SG/jyi

cc: IPS, DEQ/WQD, Cheyenne

R7

PERMIT TO CONSTRUCT

PERMIT NO. 89-250
SEE SPECIAL CONDITIONS

X New
Renewal
Modified

CONOCO PIPELINE COMPANY - DEEP ANODES

This permit hereby authorizes the applicant:

Conoco Pipe Line Company
245 East 1100 North
North Salt Lake, UT 84054

to construct, install or modify deep bed anodes according to the procedures and conditions of the application number 89-250. The facility is located Statewide in all Townships 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.

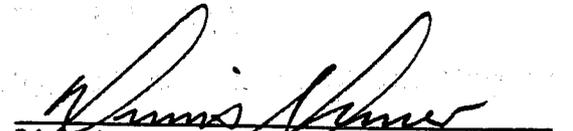
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Engineer, 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.

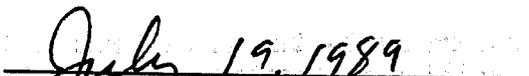
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

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


Date of Issuance

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

SPECIAL CONDITIONS FOR PERMIT TO CONSTRUCT 89-250

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 89-250.
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 each anode 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. Similar anodes may be installed during the term of this permit throughout Wyoming. All installations to have similar construction specifications.