

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-1

Paradise Valley

(Name of Facility)

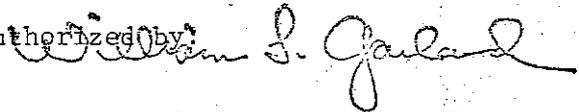
This permit hereby authorizes the applicant:

Clare	Jim	
(Last)	(First)	(Middle)
Box 493		
(Street or P.O. Box)		
Casper	Natrona	Wyoming 82601
(City)	(County)	(State)

to construct, install, or modify a Sewage Treatment Plant Improvements  
facility located in the City of Casper  
(Legal Description)

in the County of Natrona, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



Supervisor - Water Quality Div.

Director  
Wyoming Dept. of Environmental Quality

February 9, 1977

Date of Issuance

cc: Worthington, Lenhart, and Carpenter, Inc.  
Nix Anderson  
Charles Porter, Solid Waste Management

REVIEW OF PLANS AND SPECIFICATIONS

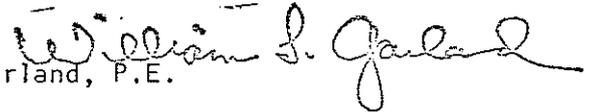
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Paradise Valley, Sewage Treatment Plant Improvements, Casper

ARCHITECT OR ENGINEER: Orrin Bower, Worthington, Lenhart, and Carpenter, Inc.,  
632 South David, Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 77-1

REVIEWING ENGINEER: Jake Strohman, William L. Garland, P.E.



DATE OF REVIEW: February 9, 1977

Supervisor - Water Quality Div.

ACTION: CONSTRUCTION AUTHORIZED, SEE CONDITION

COMMENTS: 1. A disposal site is required for tank cleaning and lagoon sludge. This site requires prior approval from solid waste and this office. Casper landfill cannot be utilized. This site shall be proposed according to Solid Waste Rules and Regulations.

JS/jo

cc: Jim Clare, Paradise Valley Utility, Box 493, Casper,  
Wyoming 82601  
Nix Anderson  
Charles Porter, Solid Waste Management

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Sanitary Sewer and Septic System, Phase III, North Recreation Complex,  
Rock Springs, Wyoming

ARCHITECT OR ENGINEER: Johnson-Fermelia and Crank, Inc., P.O. Box 1633,  
Rock Springs, Wyoming 82901

WATER QUALITY DIVISION REFERENCE NUMBER: 77-2

REVIEWING ENGINEER: David W. Hill, William L. Garland, P.E.



DATE OF REVIEW: January 18, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION.

- COMMENTS:
- 1) Plans must be signed or sealed by an engineer who is registered in the State of Wyoming.
  - 2) The leaching trenches must be at least 6 ft. apart.
  - 3) Please have owner or owner's representative fill out and submit 2 copies "Application for Permit to Construct, Install, etc."

DWH/jo

Enclosures - "Application for Permit to Construct, Install, etc."

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 77-2R

North Recreation Complex

(Name of Facility)

This permit hereby authorizes the applicant:

City of Rock Springs

c/o Johnson-Fermelia and Crank, Inc. (Last) (First) (Middle)  
P.O. Box 1633

(Street or P.O. Box)

Rock Springs Sweetwater Wyoming 82901  
(City) (County) (State)

to construct, install, or modify a Sewage Disposal System

facility located in Section 10, T19N, R105W

(Legal Description)

in the County of Sweetwater, in the State of

Wyoming. This permit shall be effective for a period of 2 years

from the date of issuance of this permit not to exceed five (5) years.

Authorized by:

*William J. Gabel*

Supervisor Water Quality Div.  
Director

Wyoming Dept. of Environmental Quality

January 25, 1977

Date of Issuance

REVIEW OF PLANS AND SPECIFICATIONS

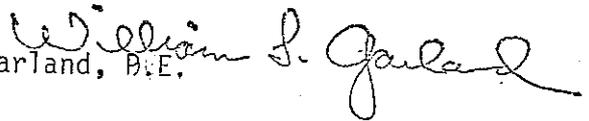
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Jeffrey City Water Supply Improvements, Jeffrey City, Wyoming,  
Fremont County

ARCHITECT OR ENGINEER: Russ Donley, Western Engineers - Architects, Inc.  
2111 E. 2nd Street, Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 77-3

REVIEWING ENGINEER: David W. Hill, William L. Garland, P.E.



DATE OF REVIEW: January 19, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

- COMMENTS:
- 1) Plans and specifications must be sealed or signed by an engineer registered in the State of Wyoming.
  - 2) Please have owner or designated representative fill out and submit two copies "Application for Permit to Construct, Install, etc."
  - 3) Two sets of plans and specifications are needed. One set will be returned to you upon DEQ authorization.

SPECIFICATIONS

- 4) Water settled backfill should not be used.
- 5) Cast iron pipe shall meet latest revision of AWWA C-106 or AWWA C-108. We are unfamiliar with Federal Specifications WW-p-4216. We would appreciate it if you would submit a copy of these specifications.
- 6) PVC pipe with an SDR of 21 meets pressure class 100, not 150, and PVC pipe with an SDR of 17 meets pressure class 150, not 200 under AWWA C900-75.

PLANS

- 7) Please submit details of the water well (i.e. - depth, grouting details, capping details, pitless adapter details, yield tests, chemical analysis, bacteriological analysis, etc.).

PROJECT: Jeffrey City Water Supply Improvements, Jeffrey City, Wyoming,  
Fremont County

REFERENCE NUMBER: 77-3

- 8) Please submit the standard thrust block detail sheet and indicate on the plan sheet the locations of all proposed thrust blocking.
- 9) The door to the chlorination room shall open outwards.
- 10) The door shall be provided with a shatter resistant inspection window.
- 11) The chlorine room should be provided with a shatter resistant inspection window installed in the interior wall. - Recommendation only.
- 12) The chlorine ejector must be located in the chlorine room. Chlorine feed lines shall not carry chlorine gas beyond the chlorine room.
- 13) Weighing scales are needed for the chlorine cylinders.
- 14) A typical water-sewer line crossover detail is needed.
- 15) Please indicate the amount of softener backwash water discharged to the drainage pit at any one time.
- 16) Monthly fluoride sampling must be undertaken. Please contact Mr. Robert Pinther of this office when the fluoridation system begins operation. Two bottles must be submitted per month.

DWH/jo

cc: Western Nuclear, Inc., Attention: Dick Fairservis,  
Townsite Manager, Jeffrey City, Wyoming 82310

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-3R

Jeffrey City Water System

(Name of Facility)

This permit hereby authorizes the applicant:

Western Nuclear, Inc. c/o

Fairservis

Richard

James

(Last)

(First)

(Middle)

P.O. Box 630

(Street or P.O. Box)

Jeffrey City

Fremont

Wyoming 82310

(City)

(County)

(State)

to construct, install, or modify a Chlorination, Controls Building

facility located in Section 15, T29N, R92W

(Legal Description)

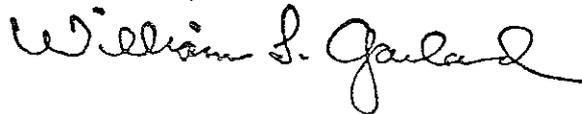
in the County of Fremont,

in the State of

Wyoming. This permit shall be effective for a period of 2 years

from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



Special Director

Wyoming Dept. of Environmental Quality

March 8, 1977

Date of Issuance

cc: Western Engineers - Architects, Inc., 2111 E. 2nd Street,  
Casper, Wyoming 82601



*Department of Environmental Quality*

*Water Quality Division*

HATHAWAY BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

January 26, 1977

Tuboscope, Inc.  
P.O. Box 808  
Houston, Texas 77001

ATTENTION: Donald H. Holick

RE: 77-4, Commercial Sewage Disposal

Dear Mr. Holick:

Construction is Not Authorized.

This office is in receipt of two sets of plans and a soil report for a proposed facility at Casper, Wyoming.

State Law requires that this facility be designed by an engineer licensed to practice in the State of Wyoming. Wyoming State Law also requires that a construction permit be obtained from this office prior to construction. Violations are subject to a maximum fine of \$10,000 per day.

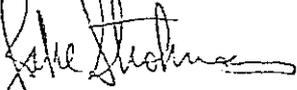
The plans at furnished require:

1. Seal or signature of the designing engineer per Chapter III.
2. Distance to highest seasonal groundwater level at location within 8 ft. of ground surface. (Physically determine)
3. Material specifications for pipe, septic tank, leach field, sewer line through foundation, etc.
4. Detail plans of septic tank and leach field.
5. Leach field cannot be located under driveway.
6. Location distances (well, septic tank, leach field, property lines, building, roadways, etc.)
7. Design information (volume of wastes, leach field sizing, type of wastes).
8. Location and disposal methods of any sumps.
9. Tie ends of leach field together.

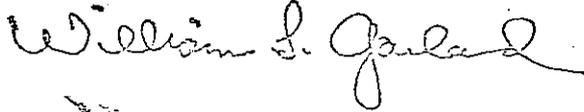
Tuboscope, Inc.  
January 26, 1977  
Page 2

Should any questions arise, do not hesitate to contact me.

Yours truly,



Jake Strohmman  
Environmental Engineer  
Water Quality Division



<sup>Supervisor - Water Quality Div.</sup>  
William L. Garland  
Supervisor  
Water Quality Division

JS/jo

Enclosure

cc: William L. Garland, Supervisor, Water Quality Division  
Nix Anderson, 241 South Conwell, Casper, Wyoming 82601

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-5

Bighorn View Subdivision  
(Name of Facility)

This permit hereby authorizes the applicant:

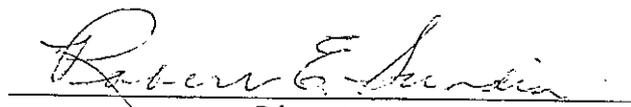
Smith                      Ray                      C.  
(Last)                      (First)                      (Middle)  
West of Sheridan  
(Street or P.O. Box)  
Sheridan                      Sheridan                      Wyoming. 82801  
(City)                      (County)                      (State)

to construct, install, or modify a Public Water Distribution System and Sewer  
Collection System  
facility located in Section 32, T57N, R86W - Town of Dayton  
(Legal Description)

in the County of Sheridan, in the State of  
Wyoming. This permit shall be effective for a period of 1 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:

  
Administrator  
Water Quality Division

  
Director  
Wyoming Dept. of Environmental Quality

May 23, 1977

Date of Issuance

cc: Walter J. Pilch and Associates, P.O. Box 6498, Sheridan, WY 82801

REVIEW OF PLANS AND SPECIFICATIONS

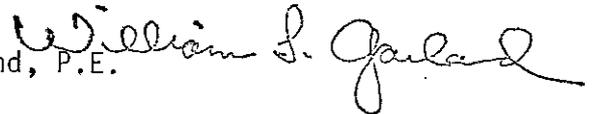
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: City of Riverton, Proposed Domestic Water Well, Riverton, Wyoming,  
Fremont County

ARCHITECT OR ENGINEER: City Engineer's Office, City of Riverton, P.O. Box  
1700, Riverton, Wyoming 82501

WATER QUALITY DIVISION REFERENCE NUMBER: 77-6

REVIEWING ENGINEER: David W. Hill, William L. Garland, P.E.



DATE OF REVIEW: January 20, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

- COMMENTS:
- 1) All plans and specifications must be sealed or signed by an engineer registered in the State of Wyoming.
  - 2) Please fill out and submit two copies "Application for Permit to Construct, Install, etc."
  - 3) Two copies of the plans and specifications shall be submitted to this office. One set shall be returned to you upon approval.
  - 4) The casing shall terminate at least 18 inches above the ground surface. Your specifications say two feet but your plan shows termination one foot above ground.

Am I correct in assuming the specifications take president?

DWH/jo  
Enclosures

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 77-6R

Airport EDA No. 1

(Name of Facility)

This permit hereby authorizes the applicant:

City of Riverton

c/o William P. Williams, City Engineer (Last) (First) (Middle)  
P.O. Box 1700  
Riverton Fremont Wyoming 82501  
(City) (County) (State)

to construct, install, or modify a Domestic Water Well  
facility located in Section 18, T1N, R4E  
(Legal Description)

in the County of Fremont, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:  
*William J. Garland*

Supervisor Water Quality Div  
Director  
Wyoming Dept. of Environmental Quality

January 26, 1977

Date of Issuance

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 77-7

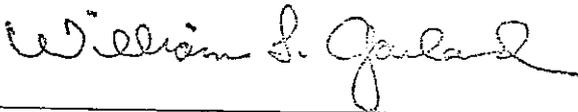
Western Hills  
(Name of Facility)

This permit hereby authorizes the applicant:

Christian, Spring, Sielbach and Associates  
(Last) (First) (Middle)  
200 North American Road  
(Street or P.O. Box)  
Cheyenne Laramie Wyoming 82001  
(City) (County) (State)

to construct, install, or modify a Water and Sewer Improvements  
facility located in Section 13, T14N, R67W  
(Legal Description)

in the County of Laramie, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:  
  
\_\_\_\_\_  
Director  
Wyoming Dept. of Environmental Quality  
Supervisor, Water Quality Div.

January 18, 1977  
Date of Issuance

cc: Don Pack, Director, Environmental Health, City-County Health Unit,  
315 West 20th, Cheyenne, Wyoming 82001

REVIEW OF PLANS AND SPECIFICATIONS

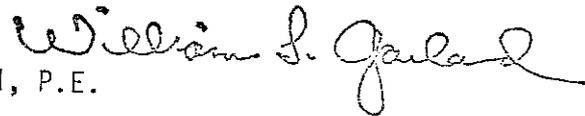
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Karls KOA, Inc.

ARCHITECT OR ENGINEER: D. M. Hopkins and Associates, 1709 Carey Avenue,  
Cheyenne, Wyoming 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 77-8

REVIEWING ENGINEER: Tom Mueller, William L. Garland, P.E.



DATE OF REVIEW: January 26, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. Sewer elevations shall be submitted to this office.
  2. Manholes shall be required at all changes in line and grade of the sewers. A manhole detail shall be necessary. A traffic manhole should not be required.
  3. Source of water to the wash houses, dump station, mobile homes, etc., shall be indicated.
  4. The total number of camper spaces, facilities in the wash houses and expected daily sewage flow shall be provided.
  5. All leach field lines shall be limited to 100 ft.
  6. Septic tank details shall be provided.
  7. Where are the 15 mobile homes mentioned on the plans to be located? Preliminary calculations indicate that twice as much leach field may be required for 15 mobile homes. Justification of the proposed leach field size shall be required.
  8. Dump station details, especially backflow prevention, shall be required.
  9. This office has recently become very concerned with the use of leach fields in conjunction with camper dump stations. The use of heavy metal (i.e. Copper and Zinc) based bacterial inhibitors in portable toilets raises the question of groundwater pollution by non-organic materials (i.e. the heavy metals) which are not treated by standard septic tank-leach fields. Has any other method of disposal for these wastes been considered? please address this problem.

PROJECT: Karls KOA, Inc.

PROJECT NUMBER: 77-8

Due to the additional information requested, this review should not be regarded as complete. If there are any questions, please contact this office.

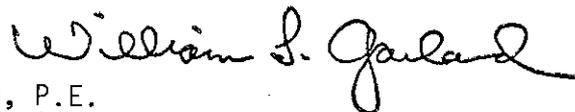
REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Karl's KOA, Inc.

ARCHITECT OR ENGINEER: D.M. Hopkins and Associates, 1709 Carey Avenue,  
Cheyenne, Wyoming 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 77-8R



REVIEWING ENGINEER: Tom Mueller, William L. Garland, P.E.

DATE OF REVIEW: March 3, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

COMMENTS: 1. Since the Campground will supply water to more than 10 service connections it is a public water supply. The following information shall be required:

- a) detail of wellhead
- b) layout of water distribution
- c) water main material

2. All other items in the initial review have been satisfactorily addressed. However, at such time as the Campground is served by City Water and Sewer, any extension of such services within the Campground will require another permit.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Karl's KOA, Inc.

ARCHITECT OR ENGINEER: D. M. Hopkins and Associates, 1709 Carey Avenue,  
Cheyenne, Wyoming 82001

WATER QUALITY DIVISION REFERENCE NUMBER:

77-8RR

*William L. Garland*

REVIEWING ENGINEER: Tom Mueller, William L. Garland, P.E.

DATE OF REVIEW: March 18, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS: The water system layout shall be amended to loop the lines together at the North and South ends. Also, please indicate water line sizes, valve locations and service details. As soon as this information is supplied, a permit can be issued.

PERMIT TO CONSTRUCT

- New  
 Renewal  
 Modified

Permit No. 77-8RRR

Karl's KOA  
(Name of Facility)

This permit hereby authorizes the applicant:

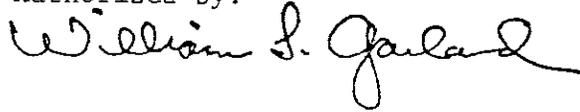
<u>Karl</u> (Last)	<u>F.</u> (First)	<u>W.</u> (Middle)
<u>c/o D. M. Hopkins and Associates</u> <u>1709 Carey Avenue</u> (Street or P.O. Box)		
<u>Cheyenne</u> (City)	<u>Laramie</u> (County)	<u>Wyoming 82001</u> (State)

to construct, install, or modify a Water supply and Sewage treatment  
facility located in Section 27, T14N, R66W  
(Legal Description)

in the County of Laramie, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

NOTE: THIS PERMIT COVERS ONLY THE PROPOSED PROJECT AS APPLIED FOR. ANY  
MODIFICATIONS, EXTENSION OR REPLACEMENT OF THE SYSTEM, PARTICULARLY  
FOR INCREASED WATER SUPPLY, WILL REQUIRE AN ADDITIONAL PERMIT.

Authorized by:



\_\_\_\_\_  
Director  
Wyoming Dept. of Environmental Quality

April 8, 1977  
Date of Issuance

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 77-10

Kelly Heights - Eastgate Additions

(Name of Facility)

This permit hereby authorizes the applicant:

City of Casper

(Last)

(First)

(Middle)

City-County Building, Room 124

(Street or P.O. Box)

Casper

(City)

Natrona

(County)

Wyoming 82601

(State)

to construct, install, or modify a Sewer Line Extensions

facility located in the City of Casper

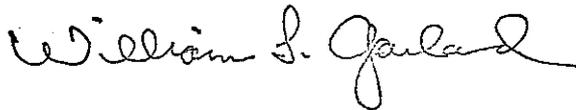
(Legal Description)

in the County of Natrona, in the State of

Wyoming. This permit shall be effective for a period of 2 years

from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



Director  
Supervisor - Water Quality Div.  
Wyoming Dept. of Environmental Quality

January 14, 1977

Date of Issuance

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Twin Creek Mine, Anti-Pollution Reservoirs, Lincoln County

ARCHITECT OR ENGINEER: Jack Reed, P.E., Peter Kiewit Sons Company, Mining  
Division, 1000 Kiewit Plaza, Omaha, Nebraska 68131

WATER QUALITY DIVISION REFERENCE NUMBER: 77-11R

REVIEWING ENGINEER: David W. Hill, William L. Garland, P.E.

DATE OF REVIEW: March 23, 1977

*William L. Garland*  
Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION.

- COMMENTS:
- 1) Information on seepage rates in the reservoir No. 1 area is still needed.
  - 2) We will not issue the "Permit to Construct" until the application for discharge permit for reservoir No. 1 is received in this office.
  - 3) Continuous flow monitoring is required for the discharge from reservoir No. 1. Please submit plans and specifications.

DWH/jo  
Enclosure - Application for Discharge Permit

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Twin Creek Mine, Anti-Pollution Reservoirs, Lincoln  
County

ARCHITECT OR ENGINEER: Jack Reed, P.E. Peter Kiewit Son's Co.,  
Mining Division, 1000 Kiewit Plaza, Omaha, Nebraska  
68131

WATER QUALITY DIVISION REFERENCE NUMBER: 77-11

REVIEWING ENGINEER: David W. Hill, William L. Garland, P.E.

*William L. Garland*

DATE OF REVIEW: January 28, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION,

- COMMENTS:
- 1) The outlet pipes from all the reservoirs shall be supplied with shut-off valves which can be used if needed.
  - 2) Compaction specifications for the damfill are needed.
  - 3) Please submit soil classification data for the earth fill used.
  - 4) Submit information of all groundwater depths in the reservoir areas.
  - 5) Please discuss seepage rates in the reservoir areas. Also include a geologic report of the area.
  - 6) Please fill out and submit two copies "Application for Permit to Construct, Install, etc."

DWH/jo  
Enclosure

PERMIT TO CONSTRUCT

- New  
 Renewal  
 Modified

Permit No. 77-12

"AS CONSTRUCTED"

Draw Street Sewer and Water Extension  
(Name of Facility)

This permit hereby authorizes the applicant:

Houtz Construction  
(Last) (First) (Middle)  
c/o The City of Cody  
1338 Rumsey Avenue  
(Street or P.O. Box)  
Cody Park Wyoming 82414  
(City) (County) (State)

to construct, install, or modify a Sewer and Water Extension  
facility located in the City of Cody  
(Legal Description)

in the County of Park, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:

William S. Garland

Director  
Wyoming ~~Supervisor~~ <sup>Water Quality Div.</sup> of Environmental Quality

January 13, 1977

Date of Issuance

REVIEW OF PLANS AND SPECIFICATIONS

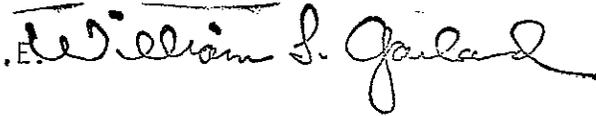
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Town of Encampment, Water Line Replacement and Extension

ARCHITECT OR ENGINEER: Nelson, Haley, Patterson and Quirk, Inc., 625 East  
Madison, Suite 5, Riverton, Wyoming 82501

WATER QUALITY DIVISION REFERENCE NUMBER: 77-13

REVIEWING ENGINEER: Tom Mueller, William L. Garland, P.E.



DATE OF REVIEW: January 18, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. The line to be replaced cannot be installed as 8" pipe unless it is supplied by at least one 8" line. The other line sizes must be checked.
  2. Neither the new 6" line, nor the 6" fire hydrants, shall be constructed as extensions of a 4" line. Minimum line size for water systems is 6".
  3. Service tap detail drawings shall be provided.
  4. Thrust block, valve pad and hydrant pad detail drawings shall be provided.

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-13R

Encampment Water Line Replacement and Extension  
(Name of Facility)

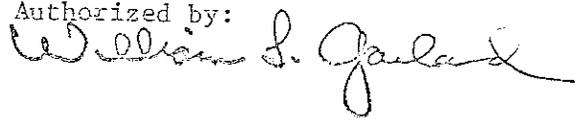
This permit hereby authorizes the applicant:

Town of Encampment  
(Last) (First) (Middle)  
P.O. Box 5  
(Street or P.O. Box)  
Encampment Carbon Wyoming 82325  
(City) (County) (State)

to construct, install, or modify a Municipal Water Main  
facility located in Section 1, T14N, R84W  
(Legal Description)

in the County of Carbon, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

NOTE: SEE ACCOMPANYING MEMORANDUM.

Authorized by:  


Superior Water Quality Div.  
Director  
Wyoming Dept. of Environmental Quality

February 28, 1977  
Date of Issuance

cc: Nelson, Haley, Patterson and Quirk, 625 East Madison, Suite 5, Riverton,  
Wyoming 82501



*Department of Environmental Quality*  
*Water Quality Division*

HATHAWAY BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

M E M O R A N D U M

TO: Town of Encampment  
FROM: *TM* Tom Mueller, Environmental Engineer, Water Quality Division  
SUBJECT: Encampment Water System Improvements  
DATE: February 28, 1977

The Town of Encampment should be aware that replacement of 4" water mains, with 6" or larger mains, will be required in any further improvements.

TM/jo  
cc: Jim Gores, Nelson, Haley, Patterson and Quirk, 625 East Madison,  
Suite 5, Riverton, Wyoming 82501

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 77-14

Eastgate II

(Name of Facility)

This permit hereby authorizes the applicant:

City of Casper

(Last) (First) (Middle)

Room 124 - City-County Building

(Street or P.O. Box)

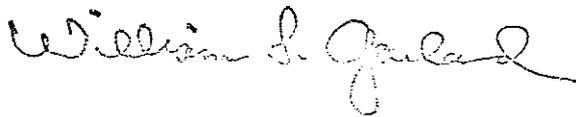
Casper Natrona Wyoming 82601

(City) (County) (State)

to construct, install, or modify a Public Utility Lines  
facility located in SE $\frac{1}{4}$  - Portions of SE $\frac{1}{4}$  - SW $\frac{1}{4}$  - Sec. 12, T33N, R79W  
(Legal Description)

in the County of Natrona, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



Supervisor ~~Director~~ Director Utility Div.  
Wyoming Dept. of Environmental Quality

January 26, 1977

Date of Issuance  
cc: E. C. Lenhart, P.E., Casper Board of Public Utilities, 130 West 8th Street,  
Casper, Wyoming 82601

REVIEW OF PLANS AND SPECIFICATIONS

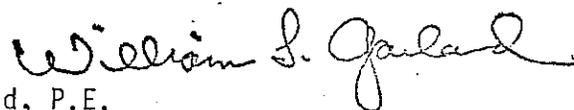
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Westgate Addition

ARCHITECT OR ENGINEER: Christian, Spring, Sielbach and Associates, 200 North  
American Road, Cheyenne, Wyoming 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 77-15

REVIEWING ENGINEER: Tom Mueller, William L. Garland, P.E.



DATE OF REVIEW: January 31, 1977

Supervisor - Water Quality Div.

ACTION: CONSTRUCTION IS NOT AUTHORIZED. SEE COMMENTS.

COMMENTS: In consultation with Ray Sherard, Cheyenne Director of Public Works,  
it was ascertained that construction on this project may be staged.  
In light of this, we agreed that:

- a) if both 6" water lines West along Carlson are constructed, they shall be tied together.
- b) if only one line is constructed, there shall be a fire hydrant at its termination.

A permit will be issued when the Water Quality Division receives verification of this from the Engineer.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 77-15R

Westgate Addition  
(Name of Facility)

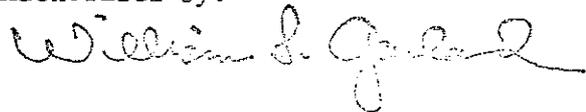
This permit hereby authorizes the applicant:

Westgate Development  
(Last) (First) (Middle)  
c/o Francis Ferguson, Managing Partner  
1651 Carey Avenue  
(Street or P.O. Box)  
Cheyenne Laramie Wyoming 82001  
(City) (County) (State)

to construct, install, or modify a Water Distribution, Sewer Collection  
facility located in Section 24, T14N, R67W  
(Legal Description)

in the County of Laramie, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



Supervisory Director  
Wyoming Dept. of Environmental Quality

February 24, 1977  
Date of Issuance

cc: CSSA, 1780 Westland Rd., Cheyenne, Wyoming 82001

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Vista West and Westgate Subdivision, Water Storage Tank, Natrona Co.,

ARCHITECT OR ENGINEER: Robert Streeter, II, P.E., Sigma Engineering, Box 4060,  
Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 77-16

REVIEWING ENGINEER: Jake Strohman, William L. Garland, P.E.

DATE OF REVIEW: February 4, 1977

*William L. Garland*  
Supervisor - Water Quality Div.

ACTION: CONSTRUCTION NOT AUTHORIZED.

- COMMENTS:
1. Furnish design information which indicates adequate tank volume for subdivision uses.
  2. Ensure stilling basin pipe has adequate draining. Pipe should be 4" above standing water, runoff water or ground elevation, whichever is higher.
  3. Is overflow piping protected from freezing? Indicate location on plans.
  4. How does inlet and outlet pipes terminate in the storage tank? Indicate on plan sheet.



REVIEW OF PLANS AND SPECIFICATIONS

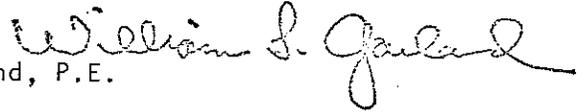
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Vista West and Westgate Subdivisions, Water Supply Improvements,  
Steel Water Storage Reservoirs.

ARCHITECT OR ENGINEER: Sigma Engineering, Box 4060, Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 77-16R

REVIEWING ENGINEER: Jake Strohman, William L. Garland, P.E.



DATE OF REVIEW: February 17, 1977

Supervisor - Water Quality Div.

ACTION: AUTHORIZED FOR CONSTRUCTION

COMMENTS: The stilling well alternate is unacceptable.

Design consideration should be given to corrosion control due to the termination of the inlet piping. The termination location of the inlet piping is such that chlorine will be highly corrosive as water splashes into the storage tank. If the aeration is not required, the inlet should be terminated below the surface and sufficient distance from outlet piping to ensure adequate chlorine detention time.

THE STATE



OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HATHAWAY BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

February 17, 1977

Sigma Engineering  
Box 4060  
Casper, Wyoming 82601

Dear Sirs:

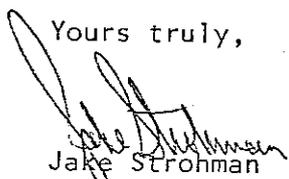
RE: Vista West and Westgate Subdivisions, 77-16R

We are sorry to report that there has been an accident in our office involving the plans, that you submitted to us. We have a basket which holds all of the plans that are in the process of being issued a permit. Unfortunately, one of the janitors on the evening shift emptied it, thinking it was a waste basket.

We are sending you the Permit to Construct for the referenced facility, since the plans have met specifications, and request an additional set of plans for our files.

We apologize for the inconvenience.

Yours truly,

  
Jake Strohmman  
Environmental Engineer  
Water Quality Division

JS:JO/jo

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 77-17RR

Poison Spider Water Improvements  
(Name of Facility)

This permit hereby authorizes the applicant:

Poison Spider Water Company  
(Last) (First) (Middle)  
c/o Western Engineers - Architects  
501 No. Sun Drive  
(Street or P.O. Box)  
Casper Natrona Wyoming 82601  
(City) (County) (State)

to construct, install, or modify a Water Improvements  
facility located in West of Casper  
(Legal Description)

in the County of Natrona, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by: William S. Gauland

Supervisor - Water Quality Div.  
Director  
Wyoming Dept. of Environmental Quality

April 5, 1977

Date of Issuance

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Poison Spider Water Improvements, Natrona County

ARCHITECT OR ENGINEER: Russ Donley, Western Engineers - Architects, Inc.  
501 No. Sun Drive  
Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 77-17RR

REVIEWING ENGINEER: Jake Strohman, William L. Garland, P.E.

DATE OF REVIEW: April 5, 1977

Supervisor: Water Quality Div.

ACTION: PHASE I & II - CONSTRUCTION AUTHORIZED

COMMENTS: Provide monitoring information to this office by September 15, 1977  
to determine extent of treatment required in Phase III.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Poison Spider Water Co., Improvements, West of Casper

ARCHITECT OR ENGINEER: None Listed, Western Engineers - Architects, Inc.,  
501 N. Sun Drive, Casper, Wyoming Attention:  
Barry Venn

WATER QUALITY DIVISION REFERENCE NUMBER: 77-17

REVIEWING ENGINEER: Jake Strohman, William L. Garland, P.E.

DATE OF REVIEW: January 28, 1977

*William L. Garland*  
Supervisor - Water Quality Div.

ACTION: CONSTRUCTION IS NOT AUTHORIZED

COMMENTS: The following information is required to obtain a construction permit:

1. Seal or signature of designing engineer.
2. How many units are presently on this supply? How many units is this design to serve? Furnish design information.
3. Does CS-256-63 for PVC pipe meet or exceed AWWA C900 specifications?
4. What is the 100 year flood level in this area of the Platte River? What is the legal description of the plant site location?
5. Furnish reasoning for not requiring two units. Two filter units is a requirement by Ten State Standards and E. Robert Bauman (authority on DE Filters).
6. Furnish design of infiltration gallery.
7. What is the quality of water to be treated by the DE filter? Was a pilot plant set up to determine the filter medium grade or grades which will provide the desired clarity - permeability relationship for your design? Furnish these results. The quality of the raw water should be required for a duration where the stream varies from maximum to minimum quality.

PROJECT: Poison Spider Water Company, Improvement, West of  
Casper

REFERENCE NUMBER: 77-17

8. Gas chlorination equipment requires separate housing. (See Ten State Standards for requirements).
9. Chlorine Detention time is not adequate prior to reaching distribution system.
10. Hach 2100A is acceptable by this office and EPA for turbidity.

JS/jo  
Enclosure  
cc: Nix Anderson

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Town of Carpenter closed septic system (vault toilet) for Fire Hall, Carpenter, Wyoming

ARCHITECT OR ENGINEER: Wyoming Water Inc., 1902 Thomas Avenue, No. 207, Cheyenne, Wyoming 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 77-19

REVIEWING ENGINEER: Frank R. Harman, P.E. *Frank R. Harman*

DATE OF REVIEW: January 24, 1977

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. The 4 inch PVC sewer pipe is too close to the well. If a distance of 50 feet cannot be provided between the two, then the sanitary sewer should be of cast iron.
  2. Also the first 5 feet of the sewer leaving the building shall be of cast iron.

cc: Don Pack Director, Environmental Health, City-County Health Unit, 315 W. 20th, Cheyenne, Wyoming 82001

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 77-19R

Closed Septic System for Fire Hall

(Name of Facility)

This permit hereby authorizes the applicant:

Town of Carpenter

(Last) c/o Peter J. Hutchison, (First) Wyoming Water, Inc. (Middle)  
1902 Thomas Avenue, Room 207

(Street or P.O. Box)

Cheyenne Laramie Wyoming 82001  
(City) (County) (State)

to construct, install, or modify a Closed Septic System

facility located in Lots 19 through 24 - Block 12

(Legal Description)

in the County of Laramie, in the State of

Wyoming. This permit shall be effective for a period of 2 years

from the date of issuance of this permit not to exceed five (5) years.

Authorized by:

Frank R. Harman

Per Director

Wyoming Dept. of Environmental Quality

February 14, 1977

Date of Issuance

cc: Don Pack, Director, Environmental Health, City-County Health Unit,  
315 W. 20th, Cheyenne, Wyoming 82001

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Indian Paintbrush Water System - Second Filing, Section 33, T41N,  
R117W

ARCHITECT OR ENGINEER: Mickey Yamashiro, P.E., Nelson Engineering, P.O. Box  
1141, Jackson, Wyoming 83001

WATER QUALITY DIVISION REFERENCE NUMBER: 77-20

REVIEWING ENGINEER: David W. Hill, William L. Garland, P.E.

DATE OF REVIEW: February 7, 1977

*William L. Garland*  
Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

- 1) Please submit all design data for sizing of the storage tank. This tank must be sized according to fire flow requirements.
- 2) All fire hydrants shall meet AWWA C502-73.
- 3) Valves should be located at not more than 800 feet intervals. Another gate valve is needed on Paintbrush Trail.
- 4) Provide details on the air/vacuum relief valve used on the existing 12000 gallon storage tank.
- 5) Please submit complete pump data for the in-line pumps (i.e. head, flow, horsepower, manufacturer, etc.)
- 6) Provide applicable specifications and standards for all pipes and valves used in the pump house.
- 7) An underground steel storage tank will not be allowed. The lower third of the tank can be bedded however. Provide details.
- 8) Underdrains must be provided in the storage tank area. Provide details.
- 9) The new steel storage tank shall meet AWWA D100-73. Insert this in specifications.
- 10) Provide building details around storage tank if building is to be used.
- 11) The upper storage tank shall not be pressurized. A vent and an overflow shall be provided.

PROJECT: Indian Paintbrush Water System - Second Filing, Section 33, T41N,  
R117W

REFERENCE NUMBER: 77-20

- 12) The manhole on the storage tank shall be framed at least four inches above the surface of the tank and shall be fitted with a solid watertight cover which overlaps the framed opening and extends down around the frame at least two inches. It shall be hinged and locked.
- 13) The overflow pipe shall be able to handle the filling rate. Provide design criteria for the pipe sizing. This pipe shall also be screened.
- 14) The drain line from the storage tank must be at least two feet above the spill line of the receiving ditch, and must be provided with a screened end or a flapper valve. Please provide details.
- 15) Provide storage tank disinfection procedures. (i.e. - according to AWWA D102-64, Section 5).



PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-21RRR

Water and Sewer System  
(Name of Facility)

This permit hereby authorizes the applicant:

Colorado Interstate Gas Company  
(Last) (First) (Middle)  
P.O. Box 1087  
(Street or P.O. Box)  
Colorado Springs Colorado 80944  
(City) (County) (State)

to construct, install, or modify a Water and Wastewater System  
facility located in Section 11, T19N, R98W  
(Legal Description)  
in the County of Sweetwater, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:

  
Administrator  
Water Quality Division

  
Director  
Wyoming Dept. of Environmental Quality

August 10, 1977

Date of Issuance

cc: Mr. R. Michael Brenneman, P.E., Upland Industries, Suite 1000, 110 N. 14th ST.,  
Omaha, Nebraska 68102

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Table Rock Village, Colorado Interstate Gas, Site  
Development, Sweetwater County

ARCHITECT OR ENGINEER: R. Michael Brenneman, P.E., Upland Industries  
Suite 1000, 110 North 14th Street, Omaha,  
Nebraska 68102

WATER QUALITY DIVISION REFERENCE NUMBER: 77-21

REVIEWING ENGINEER: David W. Hill, William L. Garland, P.E.

DATE OF REVIEW: January 28, 1977

*William L. Garland*  
Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED CONSTRUCTION

COMMENTS:

GENERAL

- 1) Submit two copies of all plans and specifications to DEQ. One set shall be returned to you upon our approval.
- 2) Submit complete design criteria for sizing of the water and wastewater treatment systems, including fire flow design of the storage tank.

WATER SYSTEM

Wells

I am under the assumption that CIG is constructing the wells. Our "Rules and Regulations, Chapter III" Section 15. a. and b. allow well construction prior to DEQ approval in order to obtain design data. However, DEQ must approve the site before drilling begins. This has not been done. The selected site is extremely important since land treatment of the wastewater is proposed. The following information is required. We may upon reviewing the submissions require an alternate well site, or a change in location of the spray irrigation system.

- 3) Please have CIG submit complete details of the wells (i.e. - depth, casing, grouting, capping, design yield, chemical analysis, disinfection procedures, submersible pump details, well log, etc.)

Other comments we have concerning the well are:

PROJECT: Table Rock Village, Colorado Interstate Gas, Site  
Development, Sweetwater County

REFERENCE NUMBER: 77-21

- 4) Will an air relief/vacuum relief valve be needed at the well head?
- 5) Will surge protection be needed?
- 6) The well shall be provided with a reinforced concrete platform at least four feet square and sloped to drain away from the well head.
- 7) The top of the casing shall be at least 18 inches above ground surface.

WATER TREATMENT PLANT (IF USED)

- 8) Complete manufacturer's plans and specifications are needed.

Stand pipe

- 9) Complete manufacturer's plans and specifications.
- 10) Overflow shall be provided with a twenty-four mesh noncorrodible screen.

Water Lines

- 11) Will a booster pump be needed to supply fire flow at a minimum pressure of 20 psi?

WASTEWATER SYSTEM

Package Treatment Plant

- 12) Supply manufacturer's plans and specifications for the plant.
- 13) The plant shall be surrounded by a building or fence - supply details.

Polishing Pond

- 14) Supply groundwater depth, percolation rate data and soil profile data for this lagoon site.
- 15) Warning signs are needed - Supply details.

PROJECT: Table Rock Village, Colorado Interstate Gas, Site  
Development, Sweetwater County

REFERENCE NUMBER: 77-21

Dump Station

- 16) The hole shall be fitted with a foot operated self closing hatch.
- 17) Submit warning sign details.
- 18) A water tower with applicable accessories shall be provided for flushing away spillage - submit details.

Spray Irrigation Field

- 19) A complete design report in accordance with Addendum No. 2 "Ten State Standards" (enclosed) is needed.

DWH/jo

cc: Steve Rogack, Colorado Interstate Gas Company,  
P.O. Box 1087, Colorado Springs, Colorado 80944

REVIEW OF PLANS AND SPECIFICATIONS

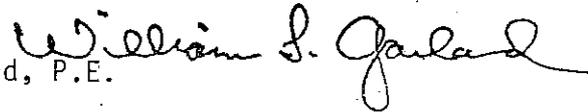
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Table Rock Village, Colorado Interstate Gas Site Development,  
Sweetwater County

ARCHITECT OR ENGINEER: R. Michael Brenneman, P.E., Upland Industries,  
Suite 1000, 110 North 14th Street,  
Omaha, Nebraska 68102

WATER QUALITY DIVISION REFERENCE NUMBER: 77-21R

REVIEWING ENGINEER: David W. Hill, William L. Garland, P.E.



DATE OF REVIEW: April 8, 1977

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

GENERAL

This Department's position at the present time is that all systems utilizing land disposal of wastewater shall provide secondary treatment including disinfection of the wastewater before land disposal can be used.

WATER SYSTEM

Wells

- 1) We still need information on depth, design yield, disinfection procedures, chemical analysis, submersible pump details (i.e. capacity, head, etc.).

Stand Pipe

- 2) Complete manufacturer's plans and specifications are still needed, including painting and disinfection specifications.

Package Treatment Plant

- 3) Disinfection must be provided.
- 4) Thought should be given to the use of a bar screen in front of the plant to keep large solids out of the aeration basins.
- 5) Contrary to the manufacturer's claims, sludge will accumulate in the system. Please address sludge handling.

Dump Station

- 6) Warning and instruction sign details still needed.

PROJECT: Table Rock Village, Colorado Interstate Gas Site Development,  
Sweetwater County -

REFERENCE NUMBER: 77-21R

• Dump Station

- 7) Submit details of the frost free hydrant. It must have provisions for backflow prevention and automatic water shut off.

Spray Irrigation Field

- 8) A complete design report is still needed. A sufficient buffer zone must be provided if wastewater effluent spray irrigation is to be used. Thought should be given to discharging from the facility during the winter so that an ice cap does not build up.
- 9) Weekly monitoring of the spray irrigation field fecal coliform count will be required in order to monitor the health hazards of the aerosols. The monitoring reports shall be submitted to this office.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Table Rock Village, Colorado Interstate Gas Site Development  
Sweetwater County

ARCHITECT OR ENGINEER: R. Michael Brenneman, P. E.

Upland Industries  
Suite 1000, 110 N. 14th St.  
Omaha, Nebraska 68102

WATER QUALITY DIVISION REFERENCE NUMBER: 77-21RR

REVIEWING ENGINEER: David W. Hill, <sup>EXH</sup> Don Armstrong, P. E.

DATE OF REVIEW: June 14, 1977

*Don Armstrong*  
*William S. Gauld*

ACTION: Not Authorized for Construction

COMMENTS:

- 1) Sludge handling and disposal from the package plant still must be addressed.
- 2) The hydrant at the dump station must have a backflow preventer (i.e. - siphon breaker or reduced pressure backflow preventer). Supply details. The washing station must have an automatic water shut off.
- 3) The fecal coliform shall be monitored at the spray irrigation site coming out of the nozzles. The fecal coliform test shall be performed once a month with a grab sample in accordance with Standard Methods. The results shall be submitted monthly to this office. The monitoring requirements shall be reevaluated in one year.

REVIEW OF PLANS AND SPECIFICATIONS

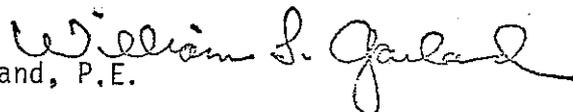
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Double Eagle Solution Mining Test Facility Pond

ARCHITECT OR ENGINEER: John Carver, Environmental Chemist, Kerr-McGee Corporation, Kerr-McGee Center, Oklahoma City, Oklahoma 73125

WATER QUALITY DIVISION REFERENCE NUMBER: 77-22

REVIEWING ENGINEER: Tom Mueller, William L. Garland, P.E.



DATE OF REVIEW: February 4, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION, SEE COMMENTS.

- COMMENTS:
- 1) Most of the information used in reviewing this application was obtained from the Double Eagle Environmental Report.
  - 2) The Report indicates a Radium pond immediately adjacent to the evaporation pond. Details of this pond shall also be submitted.
  - 3) Details of the influent structure to the evaporation pond shall be submitted. Such details should indicate how accidental introduction of radioactive solutions, intended for the other pond, is to be avoided.
  - 4) Specifications for the evaporation pond shall include the following:
    - a minimum of 2 feet of freeboard between the top of the dikes and the maximum expected water level.
    - specifications for the ground clearing and compaction of the dikes.
    - details of the sand bedding for the liner.
    - details of the piezometric monitoring and/or leak collection system below the pond.

THE STATE



OF WYOMING

ED HERSCHLER  
GOVERNOR

## *Department of Environmental Quality*

### *Water Quality Division*

HATHAWAY BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

August 24, 1977

Mr. John M. Carver  
Environmental Specialist  
Kerr-McGee Nuclear Corp.  
Kerr-McGee Center  
Oklahoma City, OK 73125

RE: Solution Mining Test Pond  
Construction Permit Ref.  
Number 77-22.

Dear Mr. Carver:

We have received your letter of August 9, 1977 in response to our review of the application for the referenced permit. In light of the fact that all the design information we have received to date is preliminary, the Water Quality Division cannot issue a permit at this time.

The information as submitted, however, can receive preliminary approval. At such time as Kerr-McGee proceeds with detailed engineering for the project construction plans and specifications should be submitted. If such plans and specifications are acceptable, a permit can then be issued.

If you have any further questions on this, feel free to call.

Yours truly,

*Tom Mueller*

Tom Mueller  
Environmental Engineer

TM/do

cc

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 77-23

Medicine Bow Settling Pond #2  
(Name of Facility)

This permit hereby authorizes the applicant:

Arch Mineral Corporation  
\_\_\_\_\_  
(Last) (First) (Middle)  
500 North Broadway  
\_\_\_\_\_  
(Street or P.O. Box)  
St. Louis MO 63102  
\_\_\_\_\_  
(City) (County) (State)

to construct, install, or modify a Wastewater Treatment Pond  
facility located in Section 29, T23N, R83W  
(Legal Description)

in the County of Carbon, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:  
*William S. Galar*

\_\_\_\_\_  
Supervisor, Director Quality Div.  
Wyoming Dept. of Environmental Quality

February 4, 1977

Date of Issuance

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION

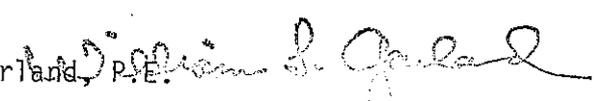
State Office Building

Cheyenne, Wyoming 82002

PROJECT: Meadowlark Subdivision, Snake River Development Company,  
P.O. Box 26, Baggs, Wyoming 82321

ARCHITECT OR ENGINEER: Baker and Associates, 451 School Street,  
Craig, Colorado 81625

WATER QUALITY DIVISION REFERENCE NUMBER: 77-24

REVIEWING ENGINEER: Tom Mueller, William L. Garland, P.E. 

DATE OF REVIEW: February 8, 1977

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. The plans shall carry the signature and/or seal of a professional engineer registered in Wyoming.
  2. The following specifications shall be submitted:
    - sewer pipe specifications
    - water pipe specifications
    - trench backfill specifications
    - sewer infiltration and test specifications
    - water line pressure and leakage test specifications
    - water line disinfection specifications
  3. Details of the steel casings to be used under the highway shall be submitted.
  4. Complete details of lift station construction shall be submitted.
  5. How are lots 91 through 95 to be served?
  6. Is the property South and East of the Subdivision capable of being developed? If so, have the sewer and water systems been sized with this possibility considered?
  7. When is the remainder of the Subdivision to be developed? If a firm date is not possible it may be required to loop the water lines at the end of Hummingbird and Wippoorwill Streets.

PROJECT: Meadowlark Subdivision

REFERENCE NUMBER: 77-24

8. The water line at the North end of Wippoorwill Street should be looped across State Hwy 70 into the city system.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Meadowlark Subdivision, Snake River Development Company, P.O. Box 26, Baggs, Wyoming 82321

ARCHITECT OR ENGINEER: Baker and Associates, 451 School Street, Craig, Colorado 81625

WATER QUALITY DIVISION REFERENCE NUMBER: 77-24R

*William L. Garland*

REVIEWING ENGINEER: Tom Mueller, William L. Garland, P.E.

DATE OF REVIEW: February 23, 1977



Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

COMMENTS: As evidenced by "As Built" notation on the drawings, Stage One of the project has been completed. YOU SHOULD BE AWARE THAT SUCH CONSTRUCTION WAS UNAUTHORIZED, AND AS SUCH, IN VIOLATION OF THE LAW. Any further such unauthorized construction will be followed by a Cease and Desist Order from this Department, and, if necessary, enforcement proceedings. The maximum fine for such unauthorized construction is \$10,000 per day of violation.

With respect to the plans and specifications:

1. The water main specifications submitted is unacceptable. PVC water mains shall meet the requirements of AWWA C-900. This specification sets the maximum SDR as follows:

Pressure Class	SDR
100	25
150	18
200	14

Pipe with SDR 21 may be used if downrated to Class 100. Class 160 pipe shall not be used under any circumstances; it is not generally manufactured for dual service (i.e. fire and domestic.)

2. As in the previous review, the water main at the North end of Wipoorwill shall be looped across State Hwy. 70 into the City system.
3. As in the previous review, details of the steel casings to be used under the highways shall be submitted.
4. Infiltration into sewer lines shall be limited to 200 gallons per inch per mile per day, as specified in Ten State Standards.

PROJECT: Meadowlark Subdivision

REFERENCE NUMBER: 77-24R

5. The design of the sewage lift station is marginal. There are two compressors, but a duplex ejector, should be used as well. No standby power is indicated. Calculations indicate that the station will operate at or above capacity at peak flows for this subdivision, which will mean replacement of the station before the sewers can be extended. Finally, at what elevation in the wet well is the ejector inlet located? It would appear from the drawings that the wet well cannot be drained.

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-24RR

Meadowlark Subdivision  
(Name of Facility)

This permit hereby authorizes the applicant:

Snake River Development Company

(Last) (First) (Middle)  
c/o Baker and Associates  
451 School Street

(Street or P.O. Box)

Craig Colorado 81625  
(City) (County) (State)

to construct, install, or modify a Water Distribution and Sewage Collection  
facility located in Section 5, T12N, R91W  
(Legal Description)

in the County of Carbon, in the State of  
Wyoming. This permit shall be effective for a period of 3 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by: William J. Garland

Supervisor - Water Quality Div.

Director  
Wyoming Dept. of Environmental Quality

April 5, 1977

Date of Issuance

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-25

Silver Dollar, Inc.

(Name of Facility)

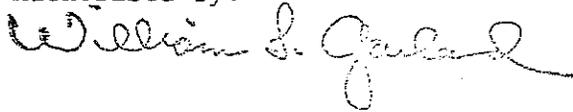
This permit hereby authorizes the applicant:

<u>Tannehill</u> (Last)	<u>Jack</u> (First)	<u>M.</u> (Middle)
<u>Star Route, Box 227</u> (Street or P.O. Box)		
<u>Jackson</u> (City)	<u>Teton</u> (County)	<u>Wyoming 83001</u> (State)

to construct, install, or modify a Wastewater Treatment System  
facility located in West ½, Section 23, T19N, R105W  
(Legal Description)

in the County of Sweetwater, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



Supervisor - Sweetwater County, Wyo.  
Director

Wyoming Dept. of Environmental Quality

January 26, 1977

Date of Issuance

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-27

Alcova Lakeview Estates

(Name of Facility)

This permit hereby authorizes the applicant:

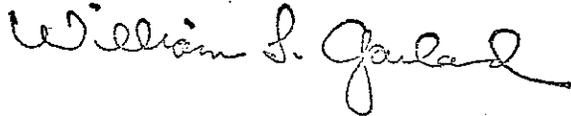
<u>Asbell</u>	<u>W.</u>	<u>R.</u>
(Last)	(First)	(Middle)
<u>3800 Wolf Creek Estates</u>		
(Street or P.O. Box)		
<u>Casper</u>	<u>Natrona</u>	<u>Wyoming 82601</u>
(City)	(County)	(State)

to construct, install, or modify a Extension and Upgrading of Water Supply  
facility located in the City of Casper

(Legal Description)

in the County of Natrona, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



Supervisor - Director  
Wyoming Dept. of Environmental Quality

February 4, 1977

Date of Issuance  
cc: Robert Pinther, Water Quality Division  
B. F. Cronin, Global Engineering, P.O. Box 532, Casper, Wyoming 82601

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-28R

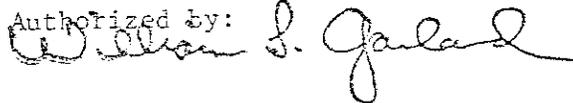
Tesoro Refinery  
(Name of Facility)

This permit hereby authorizes the applicant:

Tesoro Petroleum Corporation  
(Last) (First) (Middle)  
c/o Bob Kumpe Engineering  
P.O. Box 4240  
(Street or P.O. Box)  
Casper Wyoming 82601  
(City) (County) (State)

to construct, install, or modify a Petroleum Refinery Waste Treatment  
facility located in The City of New Castle  
(Legal Description)

in the County of Weston, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by: 

Supervisor - Water Quality Div.  
Director  
Wyoming Dept. of Environmental Quality

April 6, 1977  
Date of Issuance

cc: Mr. Ron Grantham, 8700 Tesoro Dr., San Antonio, Texas 78286

REVIEW OF PLANS AND SPECIFICATIONS

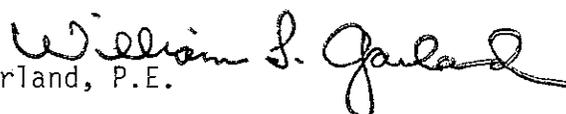
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Tesoro Petroleum Corporation, Waste Water Treatment Facilities - Newcastle Refinery

ARCHITECT OR ENGINEER: Bob Kumpe Engineering, P.O. Box 4240, Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 77-28

REVIEWING ENGINEER: Terry R. Book, William L. Garland, P.E.



DATE OF REVIEW: March 3, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. Please clarify whether there will be two pits with dual pump arrangement or one pit with three pumps as shown on Sheet #6. Also, detail how the pumps will operate.
  2. A pump curve shall be provided.
  3. Anticipated normal and maximum flow volumes shall be provided. Hydrologic data should be included to detail what portion is plant waste and what portion is storm run off.
  4. Manufacturer's data shall be provided on the Dissolved Air Flotation Unit.
  5. Details of the piping from the API Separator to the Dissolved Air Flotation Unit shall be provided.
  6. Please clarify whether the aeration unit is 50" x 248" or 7' x 17'.
  7. Please clarify what the difference in elevation will be between normal water level and emergency overflow.
  8. Due to possible contamination, the drain to daylight under the aeration basin will not be allowed. The water must be routed through the treatment process.
  9. From the data supplied by Tesoro, the proposed system will not provide adequate treatment for phenols. Please clarify what will be done to rectify this problem.

PROJECT: Tesoro Petroleum Corporation, Waste Water Treatment Facilities -  
Newcastle Refinery

REFERENCE NUMBER: 77-28

10. The API Separator shows a 6" normal outlet line but all piping details are 4" or 16" please clarify.
11. Sections A-A and B-B on Sheet #3 appear to be reversed, please clarify. Where do the slop oil and water draw recirculation lines go?
12. Please clarify what is intended for future skimmers in ponds 1 and 2 and also how the future skimmer pit will function.
13. No outlet details were provided for ponds 1, 2 and 3, please provide. No inlet details were provided for any of the ponds, please provide.
14. A 15.08 day detention time is shown, but this assumes the ponds are completely full which is not the case during normal operation, please clarify.
15. Please provide manufacturer's data on the metering device which will be installed on the Parshall flume.
16. Due to the number of comments, this cannot be considered a final review of plans and specifications. The entire project will be reviewed again upon receipt of the requested information and revisions.

TRB/jo

cc: Mr. Robert L. Macomber, Tesoro Petroleum Corporation,  
P.O. Box 820, Newcastle, Wyoming 82701

REVIEW OF PLANS AND SPECIFICATIONS

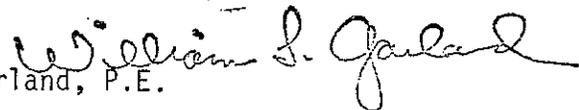
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Sweetwater, Inc., Water Extension and Sewage Disposal, Park  
County

ARCHITECT OR ENGINEER: George Tresler, Box 1050, Cody, Wyoming 82414  
Owner: Wayne Maubach, Sweetwater Inc., Wapiti,  
Wyoming 82450

WATER QUALITY DIVISION REFERENCE NUMBER: 77-29

REVIEWING ENGINEER: Jake Strohmman, William L. Garland, P.E.



DATE OF REVIEW: February 4, 1977

Supervisor - Water Quality Div.

ACTION: CONSTRUCTION IS NOT AUTHORIZED.

- COMMENTS:
1. 6 inch sewer main to septic tank is required where two cabins or more are on the same line.
  2. Material specifications are required (pipe, manhole, septic tank, distribution box, etc.)
  3. Show construction requirements of manholes, septic tank, distribution box, etc.
  4. Tie ends of leach field together with perforated pipe. What grade is the leach field to be installed at?
  5. Minimum diameter of 42" manholes are required every 400 feet, change in direction, grade or size. A cleanout or lamp hole can only be installed on a line which is 150 ft. or less.
  6. Show a profile of the sewage collection system.
  7. State backfill, alignment, infiltration, and grade specifications.
  8. The water system is considered a public water supply since ten or more service connections exist. The design of the existing system and proposed extension are required to be approved by this office before construction. Failure to obtain a construction permit could result in large daily fines.

JS/jo

cc: William George, Worland, Wyoming

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Sweetwater, Inc., Water Extension and Sewage Disposal, Park County

ARCHITECT OR ENGINEER: George Tresler, Box 1050, Cody, Wyoming 82414

WATER QUALITY DIVISION REFERENCE NUMBER: 77-29R

*William L. Garland*

REVIEWING ENGINEER: Jake Strohman, William L. Garland, P.E.

DATE OF REVIEW: February 25, 1977

Supervisor - Water Quality Div.

ACTION: CONSTRUCTION IS NOT AUTHORIZED

- COMMENTS:
1. Six inch diameter pipe is to meet ASTM D3034 specifications.
  2. A manhole is required at the change in size on the sewage line extending to the North. Recommend a cleanout at the end of the 4 inch line in place of a manhole.
  3. State alignment - grade construction checks as well as infiltration - exfiltration checks on sewer line.
  4. Enclosed is a copy of "Ten State Standards" for Water Works. Furnish "As Built" plans of the existing water system showing all lines, spring development, volume of flow, all valves and connections, specifications and details on all pumps storage, material specs, etc.

JS/jo

Enclosure: Ten State Standards (Water)

REVIEW OF PLANS AND SPECIFICATIONS

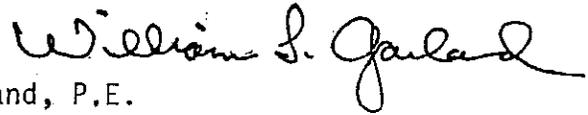
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Sweetwater, Inc., Water Extension and Sewage Disposal, Park County,  
Owner: Wayne Maubach, Sweetwater Inc., Wapiti, WY 82450

ARCHITECT OR ENGINEER: George Tresler, Box 1050, Cody, Wyoming 82414

WATER QUALITY DIVISION REFERENCE NUMBER: 77-29RR

REVIEWING ENGINEER: Jake Strohman, William L. Garland, P.E.



DATE OF REVIEW: 6-9-77

ACTION: CONSTRUCTION IS NOT AUTHORIZED

- COMMENTS:
1. Move MH #1 upstream to the second cabin. Change 4" line to 6 inch line from MH #1 to MH #2. Only one service connection to a 4 inch line.
  2. Move MH #3 upstream two cabins and change 4" from MH #3 to MH #2 to 6 inch line.
  3. Send the design of the water system. (Peak demand, flow of pump, yield of spring, pressure at end of line during peak demand, etc.)
  4. Furnish detailed drawings of system to determine if system is sanitarly constructed.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Town of Wamsutter, Water Supply Well No. 7, Wamsutter, Wyoming,  
Sweetwater County

ARCHITECT OR ENGINEER: Mickey Yamashiro, Nelson Engineering, P.O. Box 1141,  
Jackson, Wyoming 83001

WATER QUALITY DIVISION REFERENCE NUMBER: 77-30

*William L. Garland*

REVIEWING ENGINEER: David W. Hill, William L. Garland, P.E.

Supervisor - Water Quality Div.

DATE OF REVIEW: February 8, 1977

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

- COMMENTS:
- 1) A detailed profile view of the well would be very helpful in reviewing (i.e. - capping details, venting details, casing height above pumphouse floor, discharge piping details, details of handling overflow, grouting details, etc.)
  - 2) Is the flowing well water to be stopped or permitted to overflow? Please provide details.

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-30R

Wamsutter - Well No. 7  
(Name of Facility)

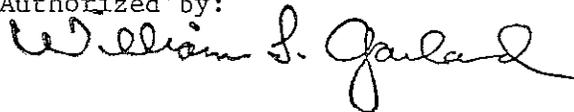
This permit hereby authorizes the applicant:

Town of Wamsutter  
(Last) (First) (Middle)  
P.O. Box 53  
(Street or P.O. Box)  
Wamsutter Sweetwater Wyoming 82336  
(City) (County) (State)

to construct, install, or modify a Water Well  
facility located in Section 20, R94W  
(Legal Description)

in the County of Sweetwater, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



~~Supervisor, Water Quality Div.~~  
Director

Wyoming Dept. of Environmental Quality

March 8, 1977

Date of Issuance

cc: Mickey Yamashiro, Nelson Engineering, P.O. Box 1141, Jackson, WY 83001

REVIEW OF PLANS AND SPECIFICATIONS

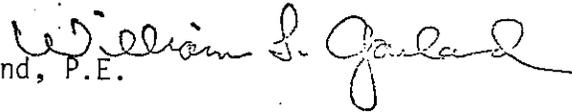
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Backwash Settling Ponds (Cody)

ARCHITECT OR ENGINEER: Lee Graham, P.E., Graham and Associates, P.O. Box 348,  
Cody, Wyoming 82414

WATER QUALITY DIVISION REFERENCE NUMBER: 77-31

REVIEWING ENGINEER: Jake Strohmman, William L. Garland, P.E.



DATE OF REVIEW: February 3, 1977

Supervisor - Water Quality Div.

ACTION: CONSTRUCTION NOT AUTHORIZED.

- COMMENTS:
1. Submit design information on volume of backwash to be treated and concentrations of suspended solids.
  2. Send compaction specifications and design consideration for compaction or structures to prevent seepage around outlet pipes through the dikes.
  3. Material specifications of pipe.
  4. The lower end of the open ditch follows the same path as the existing drainage ditch. How is this drainage to be diverted from the settling ponds?

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-31R

City Water Treatment Plant

(Name of Facility)

This permit hereby authorizes the applicant:

City of Cody

c/o Lee Graham, P.E., Graham and Associates  
P.O. Box 348

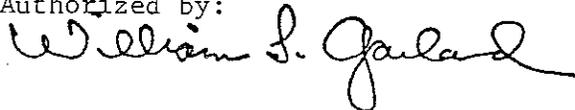
(Street or P.O. Box)

Cody Park Wyoming 82414  
(City) (County) (State)

to construct, install, or modify a Wastewater Settling Basins and Delivery/Drainage Ditches  
facility located in the City of Cody  
(Legal Description)

in the County of Park, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



Supervisor - Water Quality Div.  
Director

Wyoming Dept. of Environmental Quality

March 17, 1977

Date of Issuance

REVIEW OF PLANS AND SPECIFICATIONS

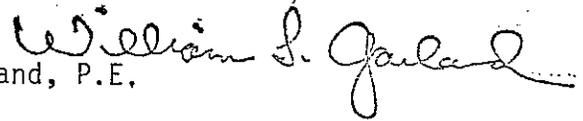
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Grandview Ranchettes, Water Supply and Distribution System,  
Cody, Wyoming

ARCHITECT OR ENGINEER: None Listed. Engineering Associates, P.O. Box 1539,  
Cody, Wyoming 82414 Owner: Irvin Gerber, Rt. 1, Box 2395,  
Cody, Wyoming 82414

WATER QUALITY DIVISION REFERENCE NUMBER: 77-32

REVIEWING ENGINEER: Jake Strohman, William L. Garland, P.E.



DATE OF REVIEW: February 3, 1977

Supervisor - Water Quality Div.

ACTION: CONSTRUCTION WITHOUT A PERMIT. (CONSTRUCTION IS UNACCEPTABLE)

COMMENTS: The following information is required to evaluate the system:

1. What is the systems proposed usage (i.e. Domestic Wateruse, lawn irrigation, firefighting, etc.)
2. Water main specifications.
3. Pipe bedding and backfill specifications.
4. Pressure test procedure.
5. Water line disinfection procedure.
6. Design of storage tank (access, drain, overflow, vent, inlet, volume, disinfection procedure, material specifications, inside tank coating, etc.)
7. How is the chorinator designed to function? Where is the water to the ejector to be furnished from?
8. How is the pump mounted?
9. Send plans and specifications for the filter supplying distribution system pump.
10. Compaction specifications of the pond dike.
11. Send a chemical analysis of the pond water.

The following items on the furnished plans are unacceptable:

PROJECT: Grandview Ranchettes, Water Supply and Distribution System,  
Cody, Wyoming

REFERENCE NUMBER: 77-32

1. At least two hours chlorine contact time is required prior to reaching the distribution system. The line from the pump to the storage tank should not be connected to the distribution system or a tank to provide the two hour contact time, will be required.
2. The distribution system shall be looped or a flushing hydrant, fire hydrant or blowoff valve installed on all deadends. Send plans and specifications.
3. Chlorine room requires air tight seal with regard to pumping unit. The room requires a ventilation fan and a heater to keep the temperature 60<sup>o</sup>F. A shatter proof window is also required on the door. The ventilation fan should be automatically turned on when the door opens.
4. On June 24, 1977, the Federal Safe Drinking Water Act goes into effect. The requirements for turbidity are as follows:
  1. Monthly average cannot exceed 1 T.U.
  2. No two consecutive days can exceed 5 T.U.'s

In order to obtain sufficient data to determine whether further treatment and the type required, a turbidimeter should be obtained and the turbidity monitored daily. A HACH 201A TURBIDIMETER is acceptable for this determination. A sample tap should be installed on the outlet side of pump and the turbidity checked during pump operation.

All surface water sources require treatment for use as a public water supply. The infiltration gallery is not considered a treatment process. Unless the turbidity requirements can be met, further treatment is required.

This public water system is not approved by this office and house financing institutions have been made aware of this.

REVIEW OF PLANS AND SPECIFICATIONS

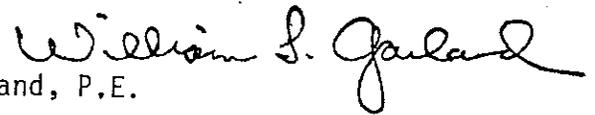
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Grandview Ranchettes, Water System, Cody, WY  
Owner: Irvin Gerber, Rt. 1, Box 2395, Cody, WY 82414

ARCHITECT OR ENGINEER: Don Livingston, P.E., Engineering Associates, P.O. Box  
1539, Cody, Wyoming 82414

WATER QUALITY DIVISION REFERENCE NUMBER: 77-32R

REVIEWING ENGINEER: Jake Strohman, William L. Garland, P.E.



DATE OF REVIEW: June 8, 1977

ACTION: CONSTRUCTION WITHOUT A PERMIT (SYSTEM IS UNACCEPTABLE)

- COMMENTS:
1. Minimum specifications for PVC water pipe is AWWA C-900. The SDR ratio of 25 is the maximum allowable and the pipe is rated at 100 psi. The commercial class 125 psi installed is not suitable for public water supply use nor is the 160 psi commercial class. Therefore, the pipe requires replacement.
  2. The storage tank is unacceptable. The tank requires a drain for cleaning. The storage tank should not be drained into the distribution system for cleaning. What are the material specifications for painting and coating the interior of the storage tank? Does the material meet specifications of AWWA D-102? What procedures of application was used? Are all aspects of the storage tank constructed according to Ten State Standards.
  3. Item 9 of the last review was not answered. What are the material specifications of the filter material?
  4. The chlorine contact time is required as stated in the previous review. Provide data to support a minimum of 2 hours contact time before reaching the first service connection when the subdivision is completely developed.
  5. Send details and specifications for the exhaust fan in chlorine room.
  6. Ten State Standards requires a shatterproof inspection window on the interior wall. In your case between the pump room and chlorine room.
  7. The turbidimeter should be acquired so that monitoring can be documented as to whether additional treatment will be required or not.



*Department of Environmental Quality*  
*Water Quality Division*

HATHAWAY BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

January 31, 1977

Christian, Spring, Sielbach and Associates  
2020 Grand Avenue  
Billings, Montana 59102

ATTENTION: Gerald M. Gaston, P.E.

RE: Infiltration - Inflow  
Investigation, Lovell,  
Wyoming 77-33

Dear Mr. Gaston:

This office has reviewed the revised report on the above referenced project. The report is inadequate to determine whether further investigation of infiltration - inflow is required. Items which need further information include:

1. A discussion of age, length, type, material of construction and know physical conditions of sewer system.
2. Will any transportation problems exist in the collection or interceptor system due to I/I flows?
3. Before an evaluation can be made as to the requirements for a sewer system evaluation survey, the best practical treatment process should be determined. After the selection of this process, determination can be made as to whether treatment or removal of I/I is cost effective. This office will await until a process is proposed and approved by this office and EPA before consideration can be given to I/I. After the process is approved, this report will probably need revised.

Items in the existing report which have raised questions are included:

Christian, Spring, Sielbach and Associates  
January 31, 1977  
Page 2

On page 5, Ten State Standards, 1971 Revised, sets a maximum allowable infiltration rate of 200 gallons per inch of pipe diameter per mile per day. This is a construction standard.

Also on page 5, how does BOD<sub>5</sub> (#/day) increase from 313 to 530 and TSS (#/day) increase from 320 to 550 by the dilution of groundwater?

On page 6, how can you justify an increase of \$5000 for anaerobic digestion and \$13,000 for sludge drying costs by infiltration - inflow?

On page 7, where did the figure ".67 mgd" come from?

Should any questions arise, do not hesitate to contact me.

Yours truly,

  
Jake Strohmman  
Environmental Engineer  
Water Quality Division

JS/jo

cc: Mr. Jim Brooks, EPA, Denver, Colorado

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Little America Retention Ponds, P.O. Box 1529, Cheyenne, Wyoming 82001

ARCHITECT OR ENGINEER: D. M. Hopkins and Associates, 1709 Carey Avenue,  
Cheyenne, Wyoming 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 77-34

REVIEWING ENGINEER: Tom Mueller, William L. Garland, P.E.

DATE OF REVIEW: February 8, 1977

*William L. Garland*  
Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. Specifications for pipe, bedding, and backfill shall be submitted.
  2. Although this is a storm sewer, some manholes shall be required to facilitate cleaning.
  3. Approximate sewer profiles shall be submitted. If it becomes necessary to make field changes, "as - built" drawings can be submitted following construction.
  4. Soil tests of the lagoon areas shall be made, and estimates of percolation loss shall be submitted.
  5. Specifications for dike material and ground preparation shall be submitted.
  6. The "Sanuril" type chlorinator is unacceptable. Details of a system, capable of chlorinating to a regulated residual dosage, shall be submitted.
  7. A discharge is shown on the plans. If this is to be retained a) the discharge permit must be maintained, b) details of the outfall must be submitted, and c) the chlorination system shall be capable of meeting both fecal coliform and total residual chlorine limitations.

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-34R

Holdings Little America Sewage Lagoons  
(Name of Facility)

This permit hereby authorizes the applicant:

Holdings Little America

(Last) (First) (Middle)  
c/o D. M. Hoplins and Associates  
1709 Carey Avenue

(Street or P.O. Box)

Cheyenne Laramie Wyoming 82001  
(City) (County) (State)

to construct, install, or modify a Sewage Treatment

facility located in Section 2, T13N, R67W

(Legal Description)

in the County of Laramie, in the State of

Wyoming. This permit shall be effective for a period of 1 years

from the date of issuance of this permit not to exceed five (5) years.

NOTE: THE DISCHARGE PERMIT IS TO BE MAINTAINED FOR DRAINAGE OF IRRIGATION LINES.

Authorized by:



Director

Wyoming Dept. of Environmental Quality

May 10, 1977

Date of Issuance

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Twelfth Street Improvements, Sewer and Water - Gillette

ARCHITECT OR ENGINEER: TSP Wyoming, 532 Val Vista, Sheridan, Wyoming 82801

WATER QUALITY DIVISION REFERENCE NUMBER: 77-36

REVIEWING ENGINEER: Terry R. Book, William L. Garland, P.E.

DATE OF REVIEW: February 17, 1977

*William L. Garland*  
Superior - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. Please complete one (1) of the enclosed application forms and return it to us with the following additional information.
  2. Compaction specifications for backfill shall be provided, "thoroughly compacted by mechanical compaction equipment" is not sufficient.
  3. Please clarify ASTM specification D3032-73 for PVC sewer pipe.
  4. It is difficult to tell what portion of the new system is covered under this submittal. Is only the 8" water and 8" sewer line along 12th Street included or does it include the 6" and 8" laterals for the side streets?
  5. A.W.W.A. Specifications require a maximum SDR of 18 for PVC pipe rated at 150 psi, and a maximum SDR of 14 for 200 psi. A.W.W.A. specification must be followed.
  6. Manhole flow channels shall avoid sharp corners and shall provide smooth transition in direction of flow. The details provided are inadequate.
  7. Disinfection of water mains shall conform to A.W.W.A. C601-68.
  8. Infiltration-exfiltration tests do not meet Ten State Standards. Infiltration-exfiltration shall not exceed 200 gallons per inch of pipe diameter per mile per day for any section of the sewer system.

REVIEW OF PLANS AND SPECIFICATIONS

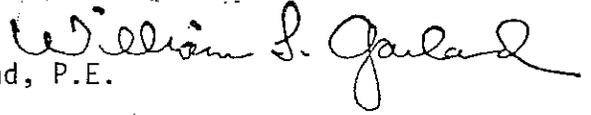
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: 12th Street Sewer and Water Improvements - City of Gillette

ARCHITECT OR ENGINEER: Richard Horak, P.E., TSP Wyoming, 532 Val Vista,  
Sheridan, WY 82801

WATER QUALITY DIVISION REFERENCE NUMBER: 77-36RR

REVIEWING ENGINEER: Dan H. Kim, William L. Garland, P.E.



DATE OF REVIEW: May 20, 1977

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
- 1) Maximum distance between manholes is 400 feet. The distance between two manholes on Stanley Avenue is longer than 400 feet.
  - 2) Due to the vertical separation of less than 18" between water and sewer mains located at 12th Street and Stanley Avenue, a clarification as to whether the crossings of service lines with mains will conform to our Chapter III Regulations, is required.
  - 3) Additional water line valves are recommended on Stanley Avenue, Church Avenue and Elon Avenue to prevent entire loop section from loosing water supply, should a line break or maintenance.
  - 4) Details of water and sewer service connections are required.
  - 5) Show the locations of plugged water and sewer main stubs in detail on the plans.
  - 6) Your specifications on disinfection of water mains still do not conform to AWWA C601-68.
  - 7) Due to insufficient information in your submittals this cannot be considered a final review of plans and specifications.

DHK/jo

cc: Mr. Gary Albertson, City Engineer, Public Works Department,  
City of Gillette, 400 S., Gillette, WY 82716

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-36RRR

12th Street Improvement - City of Gillette  
(Name of Facility)

This permit hereby authorizes the applicant:

City of Gillette, Public Works Dept. c/o Garry Albertson  
(Last) (First) (Middle)

400 S. Gillette  
(Street or P.O. Box)

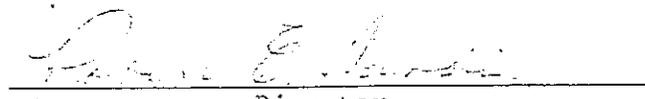
Gillette Campbell Wyoming 82716  
(City) (County) (State)

to construct, install, or modify a Water and Sewer Extensions  
facility located in Section 26, T50N, R72W  
(Legal Description)

in the County of Campbell, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:

  
Administrator  
Water Quality Division

  
Director  
Wyoming Dept. of Environmental Quality

August 5, 1977  
Date of Issuance

cc: TSP Wyoming, 532 Val Vista, Sheridan, WY 82801

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-37

Interstate Industrial Park

(Name of Facility)

This permit hereby authorizes the applicant:

Wardwell Water & Sewer

(Last) (First) (Middle)

P.O. Box 728

(Street or P.O. Box)

Mills Natrona Wyoming 82644

(City) (County) (State)

to construct, install, or modify a Distribution System

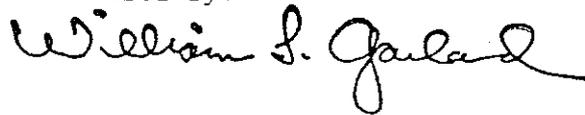
facility located in SE $\frac{1}{4}$  - NW $\frac{1}{4}$  - SW $\frac{1}{4}$  - NE $\frac{1}{4}$  - NE $\frac{1}{4}$  - SW $\frac{1}{4}$  - NW $\frac{1}{4}$  - SE $\frac{1}{4}$  - Sec. 32, T34N, R79W, 6th P.M.  
(Legal Description)

in the County of Natrona, in the State of

Wyoming. This permit shall be effective for a period of 2 years

from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



Supervisor ~~Director~~ Water Quality Div.

Wyoming Dept. of Environmental Quality

March 23, 1977

Date of Issuance

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 77-38

Rivers West & Green Valley Mobile Home Park  
(Name of Facility)

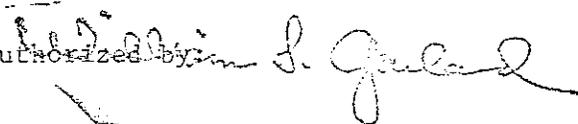
This permit hereby authorizes the applicant:

<u>Pittman</u> (Last)	<u>T.</u> (First)	<u>W.</u> (Middle)
<u>1145 S. Wolcott</u> (Street or P.O. Box)		
<u>Casper</u> (City)	<u>Natrona</u> (County)	<u>Wyoming 82601</u> (State)

to construct, install, or modify a Sewage Treatment Facilities  
facility located in the City of Casper  
(Legal Description)

in the County of Natrona, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by

  
Supervisor - Water Quality Div.

Director  
Wyoming Dept. of Environmental Quality

February 17, 1977

Date of Issuance  
cc: Brooks Water and Sewer District

REVIEW OF PLANS AND SPECIFICATIONS

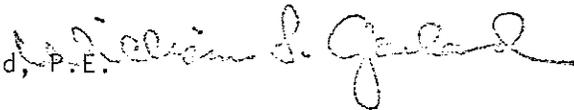
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Rivers West Estates and Green Valley Mobile Home Park, STP Standby  
Power - Brooks Water and Sewer

ARCHITECT OR ENGINEER: Vern Torgerson, P.E., Rice, Marek, Holtz and Patterson, Inc.,  
437 S. Spruce, Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 77-38

REVIEWING ENGINEER: Jake Strohman, William L. Garland, P.E.



DATE OF REVIEW: February 17, 1977

Supervisor - Water Quality Div.

ACTION: CONSTRUCTION AUTHORIZED

COMMENTS: Place the fill pipe termination and cap for the deisel storage  
so that adequate surface drainage can be utilized to prevent  
water from getting into the tank.

JS/jo  
cc: Brooks Water and Sewer District

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-39

Collins Enterprises Office Building  
(Name of Facility)

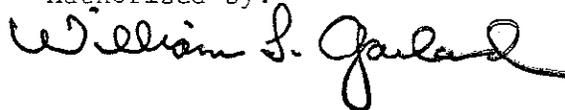
This permit hereby authorizes the applicant:

<u>Collins</u> (Last)	<u>Clarence</u> (First)	<u>E.</u> (Middle)
<u>99 Collins Rd.</u> (Street or P.O. Box)		
<u>Gillette</u> (City)	<u>Campbell</u> (County)	<u>Wyoming 82716</u> (State)

to construct, install, or modify a Wastewater Treatment Facility  
facility located in Section 30, T50N, R71W  
(Legal Description)

in the County of Campbell, in the State of  
Wyoming. This permit shall be effective for a period of 1 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



~~Supervisor - Water Quality Div.~~  
Director

Wyoming Dept. of Environmental Quality

February 25, 1977

Date of Issuance

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 77-40

Divide Addition

(Name of Facility)

This permit hereby authorizes the applicant:

Casper Board of Public Utilities

(Last)

(First)

(Middle)

136 West 8th Street

(Street or P.O. Box)

Casper

Natrona

Wyoming 82601

(City)

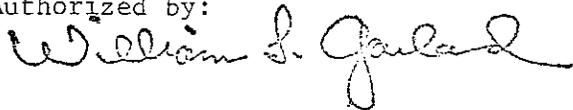
(County)

(State)

to construct, install, or modify a Water and Sewer Line Extension  
facility located in the City of Casper, Arrowhead Road and Central Driveway  
(Legal Description)

in the County of Natrona, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



~~Supervisor~~ Water Quality Div.  
Director

Wyoming Dept. of Environmental Quality

February 17, 1977

Date of Issuance

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 77-41

Valley Hills Addition #2

(Name of Facility)

This permit hereby authorizes the applicant:

Casper Board of Public Utilities

(Last)

(First)

(Middle)

136 West 8th Street

(Street or P.O. Box)

Casper

Natrona

Wyoming 82601

(City)

(County)

(State)

to construct, install, or modify a Water and Sewer Extension  
facility located in the City of Casper, Tract 1 on Janel Drive  
(Legal Description)

in the County of Natrona, in the State of

Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



Supervisor, Water Quality Div.  
Director

Wyoming Dept. of Environmental Quality

February 17, 1977

Date of Issuance



*Department of Environmental Quality*  
*Water Quality Division*

HATHAWAY BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

February 17, 1977

Casper Board of Public Utilities  
136 West 8th Street  
Casper, Wyoming 82601

Dear Sirs:

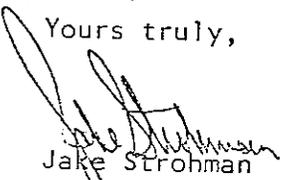
RE: Divide Addition and Valley Hills Addition,  
77-40 and 77-41

We are sorry to report that there has been an accident in our office involving the plans, that you submitted to us. We have a basket which holds all of the plans that are in the process of being issued a permit. Unfortunately, one of the janitors on the evening shift emptied it, thinking it was a waste basket.

We are sending you the Permit to Construct for the referenced facility, since the plans have met specifications, and request an additional set of plans for our files.

We apologize for the inconvenience.

Yours truly,

  
Jake Strohmman  
Environmental Engineer  
Water Quality Division

JS:JO/jo

REVIEW OF PLANS AND SPECIFICATIONS

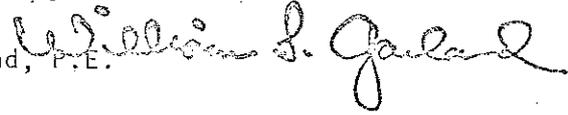
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Antelope Valley, Water System Improvements, Gillette

ARCHITECT OR ENGINEER: Faulkner-Kellogg and Associates, Inc., Consulting  
Engineers, 1425 Brentwood Street, Lakewood, Colorado 80215

WATER QUALITY DIVISION REFERENCE NUMBER: 77-42

REVIEWING ENGINEER: Terry R. Book, William L. Garland, P.E.



DATE OF REVIEW: February 18, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. Specifications shall be provided for ACP, cast iron and PVC pipe, valves, hydrants, storage tank, compaction, etc.
  2. Full detail of the storage facility shall be provided.
  3. Storage facilities shall be sized to provide both domestic demands and fire flow demands.
  4. Design pressures and calculations shall be provided. A contour map of the area shall be provided.
  5. Enclosed is a copy of Ten State Standards for Water Works. Prior to resubmittal, the provisions of these standards must be complied with.

REVIEW OF PLANS AND SPECIFICATIONS

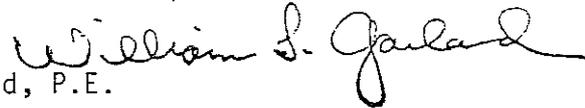
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Antelope Valley, Water System Improvements, Gillette

ARCHITECT OR ENGINEER: Faulkner-Kellogg and Associates, Inc., Consulting  
Engineers, 1425 Brentwood Street, Lakewood, Colorado 80215

WATER QUALITY DIVISION REFERENCE NUMBER: 77-42R

REVIEWING ENGINEER: Terry R. Book, William L. Garland, P.E.



DATE OF REVIEW: April 15, 1977

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. Please clarify whether the force main is 8 inch or 4 inch PVC.
  2. The General Notes call for water lines to be a minimum of 5' below finished grade but sheet 8 of 8 calls for 4' - 6", please clarify.
  3. Sheet 6 of 8 shows two dead-end water mains. Where dead-end mains occur they should be provided with a fire hydrant, flushing hydrant or blow-off for flushing purposes.
  4. Page 2 of the Engineer's Report calls for the water storage tank to be constructed according to AWWA D700-73 which should be D100-73.
  5. The plans state the storage tank will be at elevation 4840' while the specifications say 5,840', please clarify. Also, the plans call for a working pressure of 125 psi while the specifications say 86.7 psi, please clarify.
  6. The specifications call for asbestos cement, cast or ductile iron pipe while the plans call for PVC pipe, please clarify.
  7. What specification does AWWA C-11-71 refer to under Water Main Equipment?
  8. AWWA C-504-70 has been revised to AWWA C-504-74. All Valves must meet AWWA Standards.
  9. Water settling of backfill is not allowed.
  10. Manufacturer's data shall be provided on the well pump, well seal, etc. Typical details for each well shall be provided.

PROJECT: Antelope Valley, Water System Improvements, Gillette

REFERENCE NUMBER: 77-42R

11. The open end of an air-relief pipe should be extended from a manhole or enclosing chamber to a point at least one foot above ground and provided with a screened, downward-facing elbow.
12. Due to the number of comments, this shall not be considered a final review and the entire project will be reevaluated upon receipt of revised information.

TRB/jo

cc: Mr. Jimmy L. Anderson, Box 1465, Gillette, Wyoming 82716



PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-43 Ref. 75-54R

Black Thunder Mine

(Name of Facility)

This permit hereby authorizes the applicant:

Atlantic Richfield Company

(Last) (First) (Middle)  
1500 Security Life Building  
1616 Glenarm

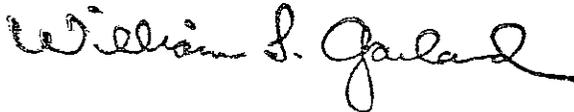
(Street or P.O. Box)

Denver Colorado 80202  
(City) (County) (State)

to construct, install, or modify a Public Water Supply  
facility located in \_\_\_\_\_  
(Legal Description)

in the County of Campbell, in the State of  
Wyoming. This permit shall be effective for a period of 5 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



Supervisor, West Quality Div.  
Wyoming Dept. of Environmental Quality

March 8, 1977

Date of Issuance

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Town of Jackson, Sanitary Sewer Collection System Rehabilitation,  
Jackson, Wyoming, Teton County

ARCHITECT OR ENGINEER: N. Kent Baker, Nelson, Haley, Patterson and Quirk, Inc.,  
P.O. Box 1520, Riverton, Wyoming 82501

WATER QUALITY DIVISION REFERENCE NUMBER: 77-45

REVIEWING ENGINEER: David W. Hill, Don Armstrong, William L. Garland, P.E.

DATE OF REVIEW: February 24, 1977

ACTION: NOT AUTHORIZED FOR CONSTRUCTION.

COMMENTS:

- 1) Provisions shall be made for an alternate bid in the contract documents to include a Performance Bond or guarantee to cover the chemical grouting (sewer line and manhole sealing) for a guarantee period of not less than two years after final inspection of the project by EPA and DEQ.
- 2) Pg 02560-6 - Alignment Tests - Each section of sewer between manholes shall be lamped by the Engineer...
- 3) Pg. 02560-6 Infiltration Tests, Our standard for allowable infiltration exfiltration is 200 gallons per day per inch of pipe diameter per mile. This is 8.33 gallons per hour per inch of pipe diameter per mile assuming a constant infiltration rate.
- 4) Pg. 02560-7 Air Test, Air tests shall be conducted on all new sewer lines, regardless of whether the sewer lies above or below the groundwater table. Provide details for below groundwater table testing procedures.
- 5) An 8" x 8" x 4" Wye or 12" x 12" x 4" Wye should be used for all service connections onto new constructed sewer lines if possible. Please comment, Recommendation only.
- 6) Please supply more details on the Flat Creek Crossings. Is the casing to be jacked or buried? All in stream work will require a permit from the U.S. Army Corps of Engineers under Section 401 and 404 of the Federal Water Pollution Control Act. See Comment #8 for details.

PROJECT: Town of Jackson, Sanitary Sewer Collection System Rehabilitation,  
Jackson, Wyoming, Teton County

REFERENCE NUMBER: 77-45

- 7) Please provide more detailed specifications on sealing of the casing ends. We also highly recommend that wooden skids be used for pulling the D.I.P. through the casing so that the bells do not snag on the inside of the casing. It is recommended that the annular opening in the casing be filled with grout.
- 8) All in stream work such as construction of the North Flat Creek Interceptor will require a 404 permit from the U.S. Army Corp of Engineers, Walla Walla District, before construction can proceed. This permit is required for all dredge and fill activities covered under Section 404 of the Water Pollution Control Act. State certification by DEQ in conjunction with Game and Fish is needed before the Corps will issue the permit. Either the Town, engineer, contractor, or any combination must apply for this permit. DEQ has 60 days after receipt of the application to issue or reject certification of the permit. It is highly suggested that application for a permit be started immediately so that lack of a permit will not hold up the contractor. If the engineer or City obtain the 404 permit, insert a statement in the specifications that contractor must comply with conditions of the issued permit.

DWH:DA/jo

Enclosures - 4 applications for State Certification



REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Solution Mining Mill, Irigary Plant - Johnson County

ARCHITECT OR ENGINEER: Wolz and Associates, Engineers, Room 208, Midwest  
Bldg., Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 77-47

REVIEWING ENGINEER: Terry R. Book, William L. Garland, P.E.

DATE OF REVIEW: February 22, 1977

*William L. Garland*  
Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. Two (2) copies of all plans and specifications are required. Only one (1) was received.
  2. The volume of wastes is listed as 2.0 MGD (2,000,000 gal. per day), please clarify.
  3. Please clarify what type of wastes will be treated by this system.
  4. Our calculations indicate that the leach field does not have enough area to dispose of the anticipated liquid volume. Please provide calculations to justify your design. The disposal area as shown is only 2552 ft<sup>2</sup> not 8060 ft<sup>2</sup> as shown on the check list, please clarify.
  5. An overall plan view shall be provided showing location of the facility with respect to landmarks, waterways and/or dry drainages in the area. Contour lines shall be included.

TRB/jo

cc: Mr. A. D. Luck, Wyoming Mineral Corporation, 3900 South  
Wadsworth Blvd., Lakewood, Colorado 80235

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-47R

Solution Mining Mill Irigary Plant  
(Name of Facility)

This permit hereby authorizes the applicant:

Wyoming Mineral Corporation  
(Last) (First) (Middle)  
3900 So. Wadsworth Blvd.  
(Street or P.O. Box)  
Lakewood Colorado 80235  
(City) (County) (State)

to construct, install, or modify a Septic Tank - Leach Field Waste Disposal  
facility located in NW¼, Sec. 9, T45N, R77W  
(Legal Description)

in the County of Johnson, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



\_\_\_\_\_  
Director  
Wyoming Dept. of Environmental Quality

April 7, 1977

Date of Issuance

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Well Field Building, Irrigary Plant - Johnson County

ARCHITECT OR ENGINEER: Wolz and Associates, Engineers, Room 208 Midwest Bldg.,  
Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 77-48

REVIEWING ENGINEER: Terry R. Book, William L. Garland, P.E.

DATE OF REVIEW: February 22, 1977

  
Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. Two (2) copies of all plans and specifications are required. Only one (1) was received.
  2. The volume of wastes is listed as 0.4 MGD (400,000 gal. per day), please clarify.
  3. Please clarify what type of wastes will be treated by this system.
  4. The disposal area as shown is only 640 ft<sup>2</sup> not 1764 ft<sup>2</sup> as shown on the check list, please clarify.
  5. An overall plan view shall be provided showing location of the facility with respect to landmarks, waterways and/or dry drainages in the area. Contour lines shall be included.

TRB/jo

cc: Mr. A. D. Luck, Wyoming Mineral Corporation, 3900 South  
Wadsworth Blvd., Lakewood, Colorado 80235

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-48R

Well-Field Building, Irigary Plant  
(Name of Facility)

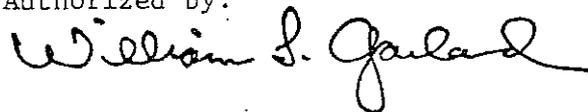
This permit hereby authorizes the applicant:

Wyoming Mineral Corporation  
(Last) (First) (Middle)  
3900 So. Wadsworth Blvd.  
(Street or P.O. Box)  
Lakewood Colorado 80235  
(City) (County) (State)

to construct, install, or modify a Septic Tank - Leach Field Waste Disposal  
facility located in NW¼, Sec. 9, T45N, R77W  
(Legal Description)

in the County of Johnson, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



\_\_\_\_\_  
Director  
Wyoming Dept. of Environmental Quality

April 7, 1977

Date of Issuance

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Analytical Lab, Irrigary Plant - Johnson County

ARCHITECT OR ENGINEER: Wolz and Associates, Engineers, Room 208 Midwest Bldg.,  
Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 77-49

REVIEWING ENGINEER: Terry R. Book, William L. Garland, P.E.

DATE OF REVIEW: February 22, 1977

*William L. Garland*  
Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION. SEE COMMENTS.

- COMMENTS:
1. Two (2) copies of all plans and specifications are required. Only one (1) was received.
  2. Please clarify what type of wastes will be treated by this system.
  3. Manufacturer's data shall be provided for the sump pump, PVC lined swimming pool, PVC tanks and PVC pipe. Will the swimming pool withstand freezing?
  4. Verification shall be provided that the PVC used is compatible with the wastes.
  5. A berm will be required around the swimming pool to contain the volume of the pool.
  6. A permit to construct will have to be obtained for the disposal pond to be constructed in the summer of 1977.
  7. What will be the ultimate disposal of the wastes?
  8. An overall plan view shall be provided showing location of the facility with respect to landmarks, waterways and/or dry drainages in the area. Contour lines shall be included.

TRB/jo

cc: Mr. A. D. Luck, Wyoming Mineral Corporation, 3900 South  
Wadsworth Blvd., Lakewood, Colorado 80235

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-49R

Analytical Lab  
(Name of Facility)

This permit hereby authorizes the applicant:

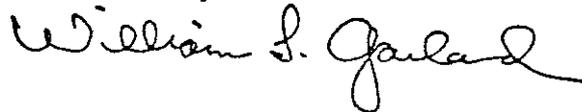
Wyoming Mineral Corporation  
(Last) (First) (Middle)  
3900 So. Wadsworth Blvd.  
(Street or P.O. Box)  
Lakewood Colorado 80235  
(City) (County) (State)

to construct, install, or modify a Laboratory Waste Holding  
facility located in NW¼, Sec. 9, T45N, R77W  
(Legal Description)

in the County of Johnson, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

NOTE: ULTIMATE WASTE DISPOSAL PLAN HAS NOT BEEN AUTHORIZED AND SAID DISPOSAL  
PLAN MUST BE SUBMITTED TO US FOR AUTHORIZATION PRIOR TO IMPLEMENTATION.

Authorized by:



Director  
Wyoming Dept. of Environmental Quality

April 7, 1977

Date of Issuance

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Citidell Subdivision, Sanitary Sewer and Water, Riverton, Wyoming,  
Fremont County

ARCHITECT OR ENGINEER: Miller Consulting Engineers, 5308 South 12th Street,  
Sheboygan, Wisconsin 53081

WATER QUALITY DIVISION REFERENCE NUMBER: 77-507

*William L. Garland*

REVIEWING ENGINEER: David W. Hill, William L. Garland, P.E.

DATE OF REVIEW: March 7, 1977

Supervisor - Water Quality Div.

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS: 1) All plans and specifications must be signed by an engineer registered in the State of Wyoming. A "Permit to Construct" will not be issued until the plans are signed by a Wyoming registered engineer.

SEWER SYSTEM

- 2) Please submit ultimate design flows for use of the 10 inch pipe. Also, is the existing 8 inch line from M.H. 10 + 18.5 scheduled for replacement with a larger size to handle future flows? A letter from the City is needed concerning this.
- 3) Leakage tests shall be specified. Water or low pressure air testing shall be specified.
- 4) A minimum 18 inch clearance shall be maintained at all water-sewer line crossovers. If this 18 inch clearance cannot be obtained, the sewer shall be constructed of materials and joints equivalent to water main standards for a distance of at least 10 feet on each side of the crossings or concrete encasement may be used.

WATER LINES

- 5) Disinfection of the water lines shall proceed according to AWWA C601-68. Insert this into the specifications.
- 6) Wood thrust blocks will not be allowed. Use concrete thrust blocks for the dead end and fire hydrant installation. Please supply details.
- 7) Hydrant drainage pit details are needed.

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 77-50R

Citidell Subdivision  
(Name of Facility)

This permit hereby authorizes the applicant:

<u>Landwer, Jr.</u> (Last)	<u>William</u> (First)	<u></u> (Middle)
<u>Dubois Route</u> (Street or P.O. Box)		
<u>Riverton</u> (City)	<u>Fremont</u> (County)	<u>Wyoming 82501</u> (State)

to construct, install, or modify a Water and Sewer System  
facility located in Section 27, T1N, R4E  
(Legal Description)

in the County of Fremont, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

Authorized by:



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Director  
Wyoming Dept. of Environmental Quality

April 12, 1977

Date of Issuance

cc: Miller Consulting Engineers, 5308 South 12th Street, Sheboygan, Wisconsin 53081