

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS LOG ELECTRIC LOGS FILE X WATER SANDS LOCATION INSPECT SUB. REPORT/858

970807 LOCATION ABANDONED eff. 8.6.97

DATE FILED DECEMBER 28, 1995

LAND: FEE & PATENTED FEE STATE LEASE NO. PUBLIC LEASE NO. INDIAN

DRILLING APPROVED: JULY 15, 1996

SPUDDED IN

COMPLETED 8.6.97 LA PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED: August 6, 1997 LA'D

FIELD: UNDESIGNATED

UNIT:

COUNTY: CARBON

WELL NO. JENSEN 16-132 API NO. 43-007-30312

LOCATION 1206 FSL FT. FROM (N) (S) LINE. 1240 FWL FT. FROM (E) (W) LINE. SW SW 1/4 - 1/4 SEC. 16

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
				15S	10E	16	RIVER GAS CORP.



Jensen 16-132 (4300730312) 6/27/96  
View SW toward nearest residence  
(across pad).



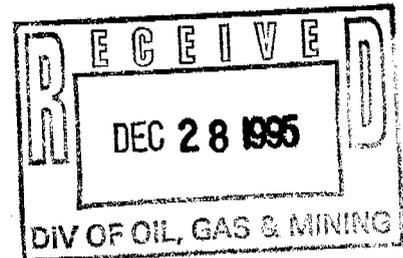
Jensen 16-132 (4300730312) 6/27/96 K  
View NE toward ~~the~~ Mancos shale erosion  
remnant.



**RIVER GAS CORPORATION**

511 Energy Center Blvd.  
Northport, Alabama 35476  
Phone (205) 759-3282  
Fax (205) 759-3188 (Accounting)  
Fax (205) 758-5309 (Corporate)

December 20, 1995



Mr. Michael Hebertson  
Utah Board of Oil, Gas, and Mining  
Suite 350, 3 Triad Center  
355 West North Temple  
Salt Lake City, Utah 84180-1203

RE: Application for Permit to Drill -  
Jensen 16-132, SW 1/4 of SW 1/4 of Sec. 16, T15S, R10E  
S.L.B. & M., Carbon County, Utah

Dear Mr. Hebertson:

Enclosed is an original and one copy of an "Application for Permit to Drill" for the well named above. Attached to the APD is the following information, as prepared by Powers Elevation Co., Inc:

- Exhibit "A": - Copy of survey plat of proposed well site
- Exhibit "B": - Drilling Program
- Exhibit "C": - B.O.P. Diagram
- Exhibit "D": - Surface Use Plan
- Exhibit "E": - Proposed Location/Access
- Exhibit "F": - Typical Road X-Section
- Exhibit "G": - Location Layout
- Exhibit "H": - Well Site Layout
- Exhibit "I": - Evidence of Bond

Exhibit "E" illustrates the proposed pipeline and road routes from the well site, but may be subject to change due to land owner's request.

Please accept this letter as our request that all information regarding this permit be kept confidential, if said information is eligible for such consideration. This request is made in accordance with State of Utah Oil and Gas rule # R649-2-11.

Thank you for your assistance. Please feel free to contact me if you have questions.

Sincerely,



Terry D. Burns

Geologist

cc: Mr. Edward W. Bonner, Utah Department of Natural Resources  
Mr. Eric Jones, BLM in Moab, Utah  
Mr. Dean Nyffler, BLM in Price, Utah  
Mr. Robert A. Hendricks, BLM in Salt Lake City, Utah  
Mr. J.R. French, Texaco  
Mr. R.A. Lamarre, Texaco  
Mr. Gee Lake, Jr., Dominion Reserves

REGISTRAR  
DEC 28 1995

Lease Designation and Serial Number:  
Patented  
If Indian, Allottee or Tribe Name:

APPLICATION FOR PERMIT TO DRILL OR DEEPEN OIL AND GAS MINING

1A. Type of Work: DRILL  DEEPEN   
B. Type of Well: OIL  GAS  OTHER: SINGLE ZONE  MULTIPLE ZONE

7. Unit Agreement Name:

2. Name of Operator:  
River Gas Corp.

8. Farm or Lease Name:  
Jensen

3. Address and Telephone Number:  
511 Energy Center Blvd., Northport, AL 35476

9. Well Number:  
16-132

4. Location of Well (Footages)  
At Surface: 1206' FSL & 1240' FWL  
At Proposed Producing Zone: 367 377

10. Field and Pool, or Wildcat:  
Wildcat

11. Ctr/Ctr, Section, Township, Range, Meridian:  
SW/SW, Sec. 16,  
T15S, R10E

14. Distance in miles and direction from nearest town or post office:  
6.2 miles south of Price, UT

12. County: Carbon  
13. State: UTAH

15. Distance to nearest property or lease line (feet): 114'

16. Number of acres in lease: 240

17. Number of acres assigned to this well: 160

18. Distance to nearest well, drilling, completed, or applied for, on this lease (feet): n/a

19. Proposed Depth: 1395'

20. Rotary or cable tools: Rotary

21. Elevations (show whether DF, RT, GR, etc.):  
5575' GR

22. Approximate date work will start:  
May 1996

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	BETTING DEPTH	QUANTITY OF CEMENT
11"	8 5/8"	24#	300'	110 sx Class G, 15.8 ppq
7 7/8"	5 1/2"	17#	1365'	50/50 Pozmix, tail RFC
	SEE EXHIBIT "B"			

DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

EXHIBITS ATTACHED:

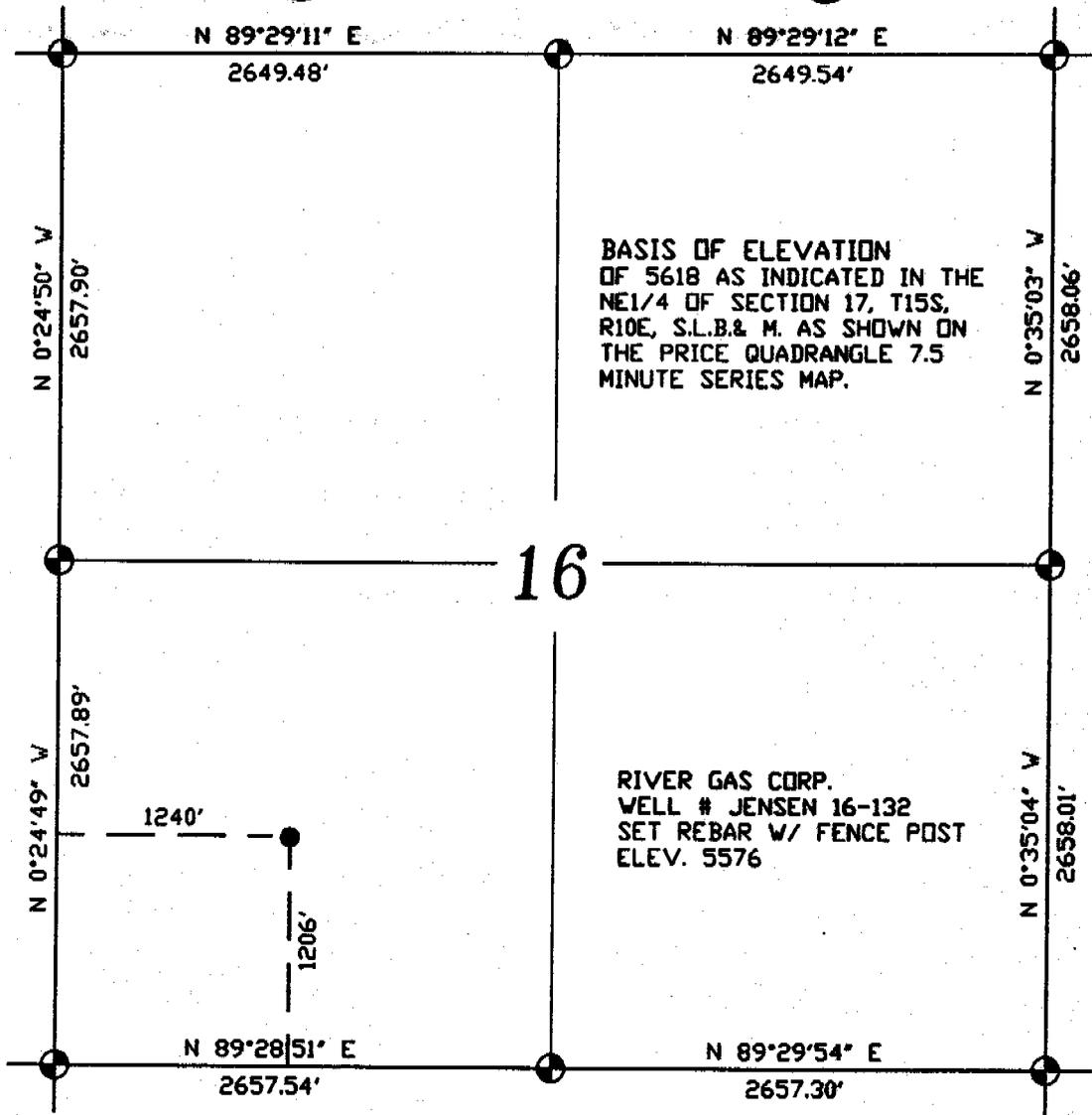
- EXHIBIT "A" Location Plat
- EXHIBIT "B" Drilling Program
- EXHIBIT "C" BOPE Diagram
- EXHIBIT "D" Surface Use Plan
- EXHIBIT "E" Proposed Location/Access
- EXHIBIT "F" Typical Road X-section
- EXHIBIT "G" Location Layout
- EXHIBIT "H" Well Site Layout
- EXHIBIT "I" Evidence of Bond

24. Name & Signature: Janet Watson Agent for River Gas Corp. Title: Agent for River Gas Corp. Date: 12/26/95

(This space for State use only) J. M. Matthews Richard Szymmer Approval: 7/15/96  
API Number Assigned: 43-007-30312

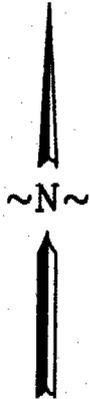
RANGE 10 EAST

TOWNSHIP 15 SOUTH



BASIS OF ELEVATION  
OF 5618 AS INDICATED IN THE  
NE1/4 OF SECTION 17, T15S,  
R10E, S.L.B. & M. AS SHOWN ON  
THE PRICE QUADRANGLE 7.5  
MINUTE SERIES MAP.

RIVER GAS CORP.  
WELL # JENSEN 16-132  
SET REBAR W/ FENCE POST  
ELEV. 5576



**LEGEND**

- ⊕ FOUND BRASS CAP
- SEARCHED FOR BUT NOT FOUND
- ⬠ FOUND ROCK CORNER

**BASIS OF BEARING**

BASIS OF BEARING N 89°29'11" E MEASURED  
BETWEEN THE NW CORNER AND THE N1/4 CORNER  
OF SECTION 16, TOWNSHIP 15 SOUTH, RANGE 10  
EAST, SALT LAKE BASE AND MERIDIAN.

**ENGINEER'S CERTIFICATE**

I, EVAN E. HANSEN, DO HEREBY CERTIFY THAT I AM  
A REGISTERED LAND SURVEYOR AND PROFESSIONAL  
ENGINEER HOLDING CERTIFICATE NUMBER 145656 AS  
PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH.  
I FURTHER CERTIFY THAT I HAVE MADE A SURVEY OF  
THE TRACT OF GROUND SHOWN AND THAT IT IS TRUE  
AND CORRECT TO THE BEST OF MY KNOWLEDGE.

*Evan E. Hansen*  
EVAN E. HANSEN  
DATE JUNE 26, 1996

SW1/4 SEC. 16, T 15 S, R 10 E, S.L.B. & M.

**Empire Engineering**

1665 E. Sagewood Rd. Price, Utah 84501

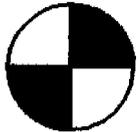
**RIVER GAS CORP.  
WELL # JENSEN 16-132**

Drawn By: RCH	Approved By: EEH	Drawing No. <b>EEOG-96132</b>
Date: 6/26/96	Scale: 1"=1000'	

FORM PS 102B

POWERS ELEVATION CO., INC.  
P.O. Box 440889  
Aurora, CO 80044  
(303)321-2217

ALL POWERS ELEVATION CO., INC.  
elevations originate from  
accepted U.S. Benchmarks.



R10E

S 89°54' W  
1324.1'

Found Concrete Monument

Found #4 Rebar



Basis of Bearing: West line of Section 16, T15S, R10E,  
assumed NORTH-SOUTH.

5315.6'

NORTH

16

T  
15  
S

NOTES:

LOCATION FALLS IN PASTURE.  
THERE ARE NO IMPROVEMENTS WITHIN  
200' OF LOCATION.  
ELEVATION ESTABLISHED FROM NGVD  
1929 DATUM.  
GROUND ELEVATION = 5575'

1240'

1206'

Found Concrete Monument

Fence Corner Post

S 89°50' W

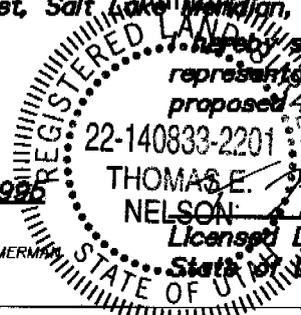
2625.6'



SCALE IN FEET

Powers Elevation Co., Inc. of Denver, Colorado has in accordance with a request from Charles Willis for River Gas Corporation determined the proposed location of Jensen #16-132 to be 1206' FSL & 1240' FWL, Section 16, Township 15 South, Range 10 East, Salt Lake Meridian, Carbon County, Utah.

I hereby state that this plat is an accurate representation of a correct survey showing the proposed location of Jensen #16-132



Date: October 20, 1996

THOMAS E. NELSON

Licensed Land Surveyor No. 22-140833-2201

SURVEYED & DRAWN BY: ED AMMERMAN  
FILE: \RGC\16-132

State of Utah

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

DEC 28 1995

Patented

APPLICATION FOR PERMIT TO DRILL OR DEEPEN, GAS & MINING

1A. Type of Work: DRILL  DEEPEN

B. Type of Well: OIL  GAS  OTHER: SINGLE ZONE  MULTIPLE ZONE

2. Name of Operator:  
River Gas Corp.

3. Address and Telephone Number:  
511 Energy Center Blvd., Northport, AL 35476

4. Location of Well (Footages)  
At Surface: 1206' FSL & 1240' FWL  
At Proposed Producing Zone:

5. Field Designation and Serial Number:  
Patented

6. Farm or Lease Name:  
Jensen

7. Unit Agreement Name:

8. Well Number:  
16-132

9. Field and Pool, or Wildcat:  
Wildcat

10. Ctr/Ctr, Section, Township, Range, Meridian:  
SW/SW, Sec. 16,  
T15S, R10E

11. Distance in miles and direction from nearest town or post office:  
6.2 miles south of Price, UT

12. County: Carbon 13. State: UTAH

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DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

EXHIBITS ATTACHED:

- EXHIBIT "A" Location Plat
- EXHIBIT "B" Drilling Program
- EXHIBIT "C" BOPE Diagram
- EXHIBIT "D" Surface Use Plan
- EXHIBIT "E" Proposed Location/Access
- EXHIBIT "F" Typical Road X-section
- EXHIBIT "G" Location Layout
- EXHIBIT "H" Well Site Layout
- EXHIBIT "I" Evidence of Bond

24. Name & Signature: Janet Watson Title: Agent for River Gas Corp. Date: 12/26/95

(This space for State use only) J. Matthews Petroleum Engineer 7/15/96

API Number Assigned: 43-007-30312 Approval:

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P.O. Box 440889  
Aurora, CO 80044  
(303)321-2217

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elevations originate from  
accepted U.S. Benchmarks.



R10E

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1324.1'

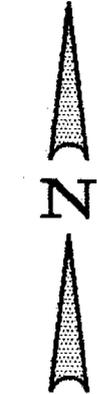
Found Concrete Monument

Found #4 Rebar

5315.6'

Basis of Bearing: West line of Section 16, T15S, R10E,  
assumed NORTH-SOUTH.

NORTH



T  
15  
S

NOTES:

LOCATION FALLS IN PASTURE.  
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GROUND ELEVATION = 5575'

1240'

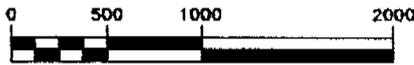
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S 89°50' W

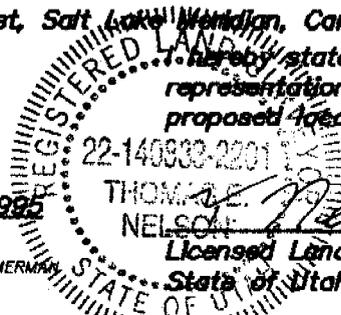
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Date: October 20, 1985

THOMAS E. NELSON

Licensed Land Surveyor No. 22-140833-2201

State of Utah

SURVEYED & DRAWN BY: ED AMMERMAN  
FILE: VRGC\16-132

EXHIBIT "B"  
DRILLING PROGRAM

Attached to Form 3  
River Gas Corp.  
#16-132 Jensen  
SW/4 SW/4, Sec. 16, T15S, R10E  
1206' FSL & 1240' FWL  
Carbon County, Utah

1. The Geologic Surface Formation

Mancos Shale

2. Estimated Tops of Important Geologic Markers.

Blue Gate/Ferron      1010'  
Ferron/Tununk        1295'

3. Projected Gas & H2O zones (Ferron Formation)

Sandstones and coals - 1025' to 1175'

No groundwater is expected to be encountered.

Casing & cementing will be done to protect potentially productive hydrocarbons, lost circulation zones, abnormal pressure zones, and prospectively valuable minerals deposits. All indications of usable water will be reported.

Surface casing will be tested to 1400 psi.

4. The Proposed Casing and Cementing Programs

<u>HOLE SIZE</u>	<u>SETTING DEPTH (INTERVAL)</u>	<u>SECTION LENGTH</u>	<u>SIZE (OD)</u>	<u>WEIGHT, GRADE &amp; JOINT</u>	<u>NEW, USED</u>
11	300'	300'	8 5/8	24#	new
7 7/8	1365'	1365'	5 1/2	17#	new

Cement Program

Surface Casing:      110 sx Class G, 15.8 ppg cement

Production Casing: 50/50 Pozmix and tail in with RFC. The 50/50 Pozmix accounts for 75% total cement, RFC 25%.

Total sx cement 160.  
Cement volumes will vary depending on formations encountered and hole conditions.

The following shall be entered in the driller's log:

- (1) Blowout preventer pressure tests, including test pressures and results;
- (2) Blowout preventer tests for proper functioning;
- (3) Blowout prevention drills conducted;
- (4) Casing run, including size, grade, weight, and depth set;
- (5) How the pipe was cemented, including amount of cement, type, whether cement circulated, location of the cementing tools, etc.;
- (6) Waiting on cement time for each casing string;
- (7) Casing pressure tests after cementing, including test pressures and results.

5. The Operator's Minimum Specifications for Pressure Control

EXHIBIT "C" is a schematic diagram of the blowout preventer equipment. A double gate 3000 psi BOPE will be used with a rotating head. This equipment will be tested to 1400 psi. All tests will be recorded in a Driller's Report Book. Physical operation of BOP's will be checked on each trip.

6. The Type and Characteristics of the Proposed Circulating Muds

0-300	11" hole	Drill with air, will mud-up if necessary
300-1395	7 7/8" hole	Drill with air. 400 psi @ 1500-1800 Scf.

7. The Testing, Logging and Coring Programs to be Followed

0-300	Gamma Ray
300-TD	Gamma Ray, Density, Neutron Porosity, Induction, Caliper

Any Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well. Bottom hole pressure expected is 670 psi maximum.

No hydrogen sulfide or other hazardous gases or fluids have been found, reported or are known to exist at these depths in the area.

8. Anticipated Starting Date and Duration of the Operations.

The well will be drilled in May 1996.

Verbal and/or written notifications listed below shall be submitted in accordance with instructions from the Division of Oil, Gas & Mining:

- (a) prior to beginning construction;
- (b) prior to spudding;
- (c) prior to running any casing or BOP tests;
- (d) prior to plugging the well, for verbal plugging instructions.

Spills, blowouts, fires, leaks, accidents or other unusual occurrences shall be reported to the Division of Oil, Gas & Mining immediately.

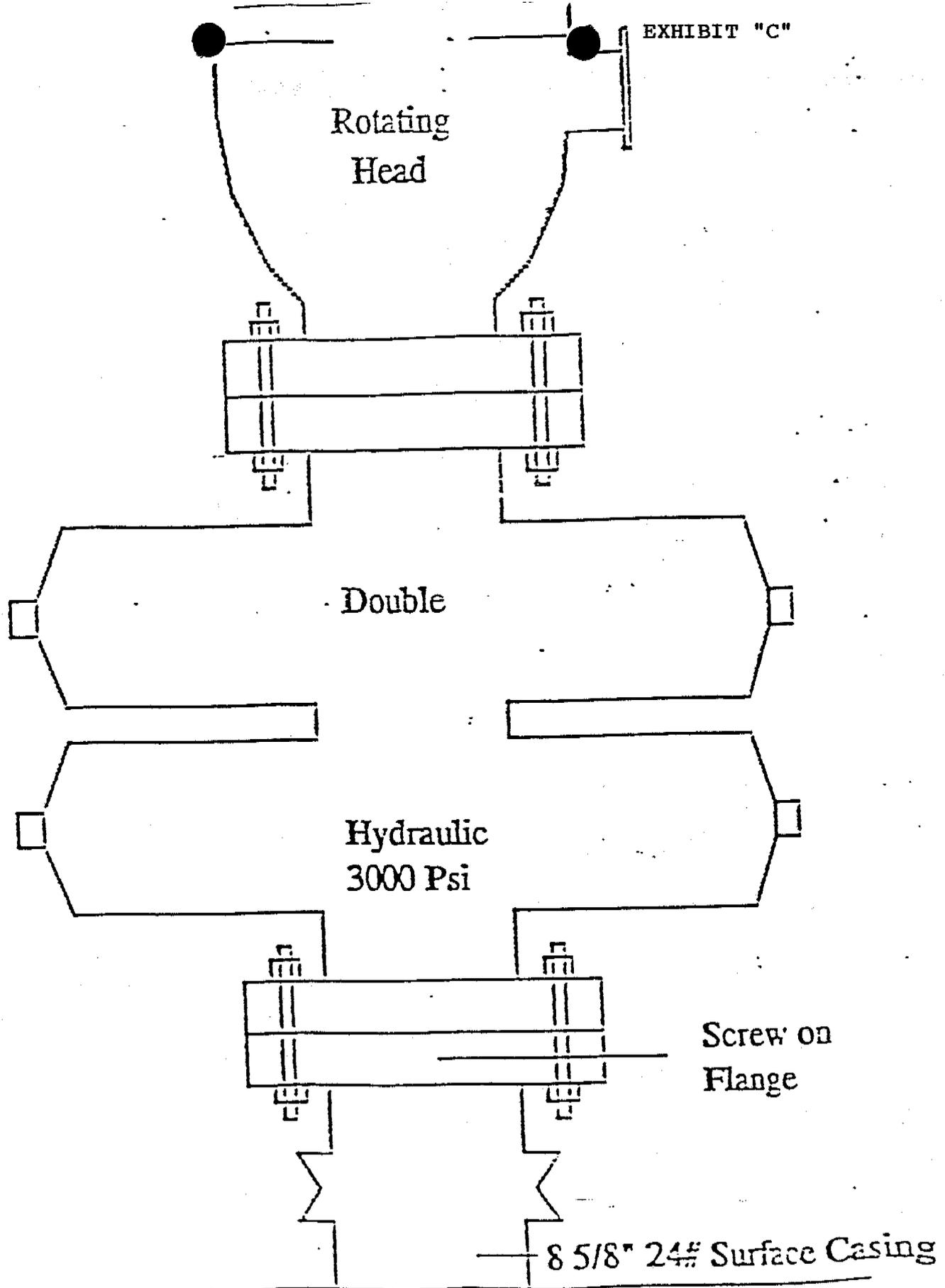


EXHIBIT "D"MULTIPOINT SURFACE USE PLAN

Attached to Form 3  
River Gas Corp.  
#16-132 Jensen  
SW/4 SW/4, Sec. 16, T15S, R10E  
1206' FSL & 1240' FWL  
Carbon County, Utah

## 1. EXISTING ROADS

- A. See Exhibit "E". We do not plan to change, alter or improve upon any existing state or county roads. Existing roads will be maintained in same or better condition.
- B. From intersection State Hwys. 6 & 10 in Price, travel south on Hwy. 10 5.2 miles (2-lane crowned) to County Road 5800 South on left, then easterly .49 mile to beginning of access to #17-133, then north ±1150', then east ±2600' to proposed location.

## 2. PLANNED ACCESS

See Exhibit "E". 2600' of new access is required.

- A. Maximum Width: 14' travel surface with 27' base
- B. Maximum grade: 1%
- C. Turnouts: None
- D. Drainage design: Culverts may be required. Water will be diverted around well pad as necessary.
- E. Cuts and fills: None
- F. Surfacing materials: 4" sand and gravel if necessary.
- G. Gates, cattleguards, fence cuts: None

If well is productive, road will be surfaced and maintained as necessary to prevent soil erosion and accommodate year-round traffic.

## 3. LOCATION OF EXISTING WELLS

- A. See Exhibit "E". There are no existing wells within one

mile of the proposed location.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. If the well is a producer, installation of production facilities will be as shown on EXHIBIT "H". Buried powerlines run along access on the east or north, gathering lines on the south or west.
- B. Rehabilitation of all pad areas not used for production facilities will be made in accordance with landowner stipulations.

5. LOCATION AND TYPE OF WATER SUPPLY

- A. Water to be used for drilling will be purchased from the Price River Water Improvement District (tel. 801-637-6350). This has been arranged by Mr. Michael J. Farrens, Vice President of River Gas Corp. - Utah Operations. He has been in contact with Mr. Phillip Palmer. Mr. Farrens has discussed this arrangement with Mark Page of the Division of Water Rights (tel. 801-637-1303) over the telephone. The Division of Water Rights is to furnish the Oil & Gas Division with a letter of approval concerning this matter.
- B. Water will be transported by truck over approved access roads.
- C. No water well is to be drilled for this location.

6. SOURCE OF CONSTRUCTION MATERIALS

- A. Any construction materials needed will be obtained locally and hauled to the location on existing roads.
- B. No construction or surfacing materials will be taken from Federal/Indian land.

7. METHODS FOR HANDLING WASTE DISPOSAL

- A. As the well will be air drilled, a small reserve pit will be constructed with a minimum of one-half the total depth below the original ground surface on the lowest point within the pit. The pit will not be lined unless conditions encountered during construction warrant it. Three sides of the reserve pit will be fenced within 24 hours after completion of construction and the fourth side within 24 hours after drilling operations cease with four strands of barbed wire, or woven wire topped with barbed wire to a height of not less than four feet. The fence will be kept in good repair while the pit is

drying.

- B. Following drilling, the liquid waste will be evaporated from the pit and the pit backfilled and returned to natural grade.

No liquid hydrocarbons will be discharged to the reserve pit or location.

- C. In the event fluids are produced, any oil will be retained in tankage until sold and any water produced will be retained until its quality can be determined. The quality and quantity of the water will determine the method of disposal.
- D. Trash will be contained in a portable metal container and will be hauled from location periodically and disposed of at an approved disposal site. Chemical toilets will be placed on location and sewage will be disposed of at an appropriate disposal site.

#### 8. ANCILLARY FACILITIES

- A. We anticipate no need for ancillary facilities with the exception of three trailers to be located on the drill site.

#### 9. WELLSITE LAYOUT

- A. Available topsoil will be removed from the location and stockpiled. If ground frost prevents the segregation and removal of the topsoil material from the less desirable subsoil material, cross-ripping to the depth of the topsoil material may be necessary. Location of mud tanks, reserve and burn pits, and soil stockpiles will be located as shown on the attachments.
- B. A blooie pit will be located 150' diagonally from the drill hole. A line will be placed on the surface from the center hole to the burn pit. Burn pit will not be lined, but will be fenced on four sides to protect livestock/wildlife.
- C. Access to the well pad will be as shown on Exhibit "G".
- D. Natural runoff will be diverted around the well pad.

#### 10. PLANS FOR RESTORATION OF SURFACE

- A. All surface areas not required for producing operations will be graded to as near original condition as

possible and contoured to maintain possible erosion to a minimum.

- B. Available topsoil will be stockpiled and will be evenly distributed over the disturbed areas and the area will be reseeded as prescribed by the landowner.
- C. Pits and any other area that would present a hazard to wildlife or livestock will be fenced off when the rig is released and removed.
- D. Any oil accumulation on the pit will be removed or overhead flagged as dictated by then existing conditions.
- E. Date of commencement will be May, 1996. Rehabilitation will commence following completion of the well. Rat and mouse holes will be filled immediately upon release of the drilling rig from the location. If the wellsite is to be abandoned, all disturbed areas will be recontoured to the natural contour as is possible.

#### 11. SURFACE OWNERSHIP

- A. The wellsite and access road will be constructed on lands owned by LDS, 50 East North Temple, Salt Lake City, UT 84150. The operator shall contact the landowner and the Division of Oil, Gas & Mining 48 hours prior to beginning construction activities.

#### 12. OTHER INFORMATION

The surface is irrigated farmland. The nearest dwelling is 0.5 mile to the southwest. Nearest live water 0.5 mile south (Carbon Canal).

If there is snow on the ground when construction begins, it will be removed before the soil is disturbed, and piled downhill from the topsoil stockpile location.

The backslope will be constructed no steeper than 4:1, the foreslope no steeper than 4:1.

All equipment and vehicles will be confined to the access road and well pad.

A complete copy of the approved Application for Permit to Drill (APD) including conditions and stipulations, shall be on the wellsite during construction and drilling operations.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the Division of Oil, Gas and Mining.

13. COMPANY REPRESENTATIVE

THROUGH A.P.D. APPROVAL

Janet Watson  
Agent/Consultant for  
River Gas Corp.  
P. O. Box 440889  
Aurora, Co. 80044  
(303) 321-2217

MAIL APPROVED A.P.D. TO

Terry Burns  
River Gas Corp.  
511 Energy Cntr. Blvd.  
Northport, AL 35476  
(205) 759-3282

FIELD REPRESENTATIVE

Steve Prince  
(801) 637-8876  
M-(801) 636-5256

DIRT CONTRACTOR

NELCO  
Larry Jensen  
(801) 637-3495  
M-(801) 636-5268

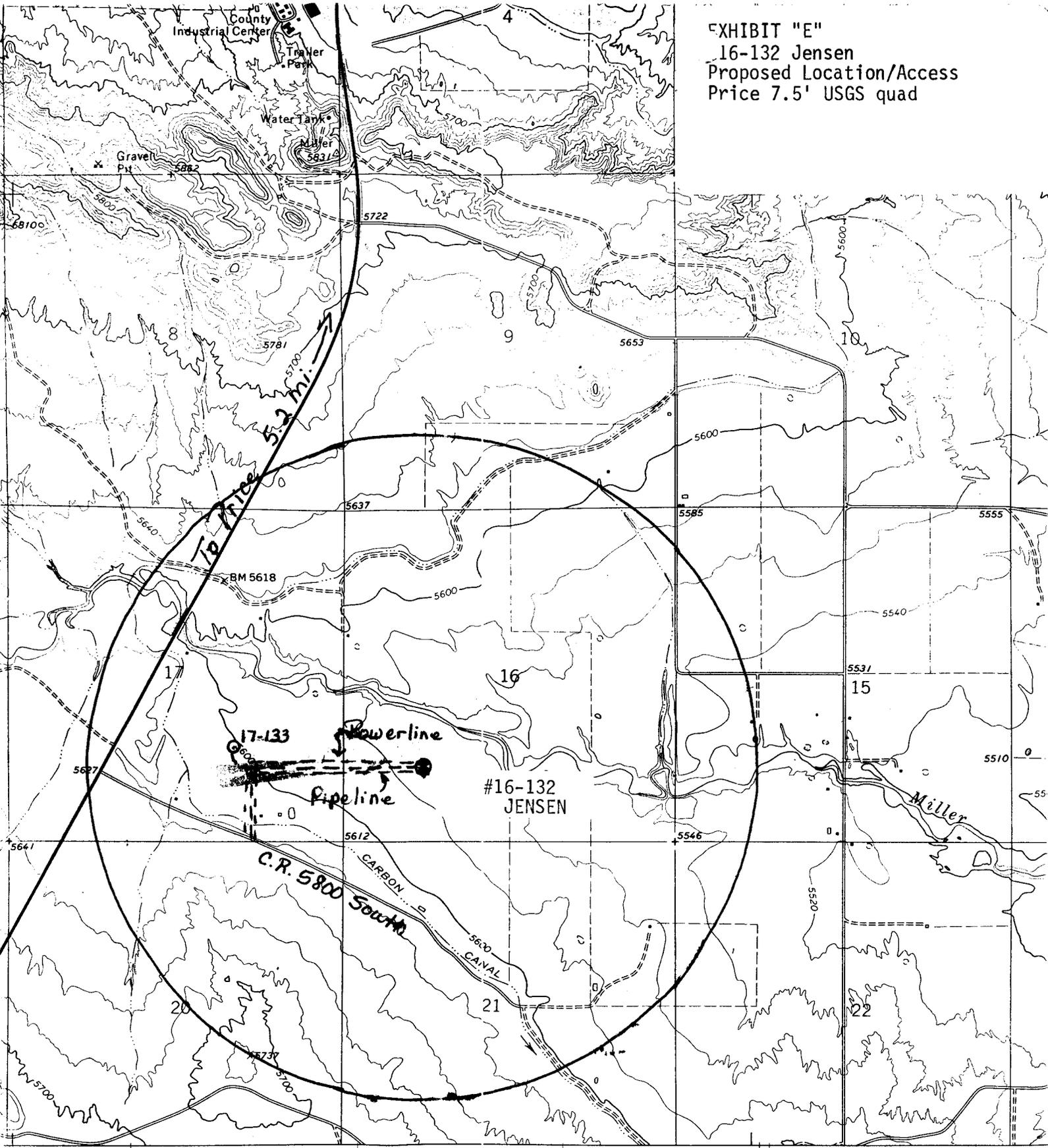
14. CERTIFICATION

I hereby certify that I, or persons under my direct supervision have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct, and that the work associated with the operations proposed herein will be performed by River Gas Corp. and its subcontractors in conformity with this plan and the terms and conditions under which it is approved.

12/26/95  
Date

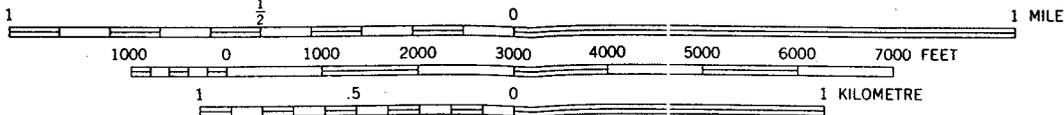
Janet Watson  
Janet Watson  
Agent for River Gas Corp.

EXHIBIT "E"  
 #16-132 Jensen  
 Proposed Location/Access  
 Price 7.5' USGS quad



50'      515      (ELMO) 3862 IV NE      517      47'30"      519

SCALE 1:24 000

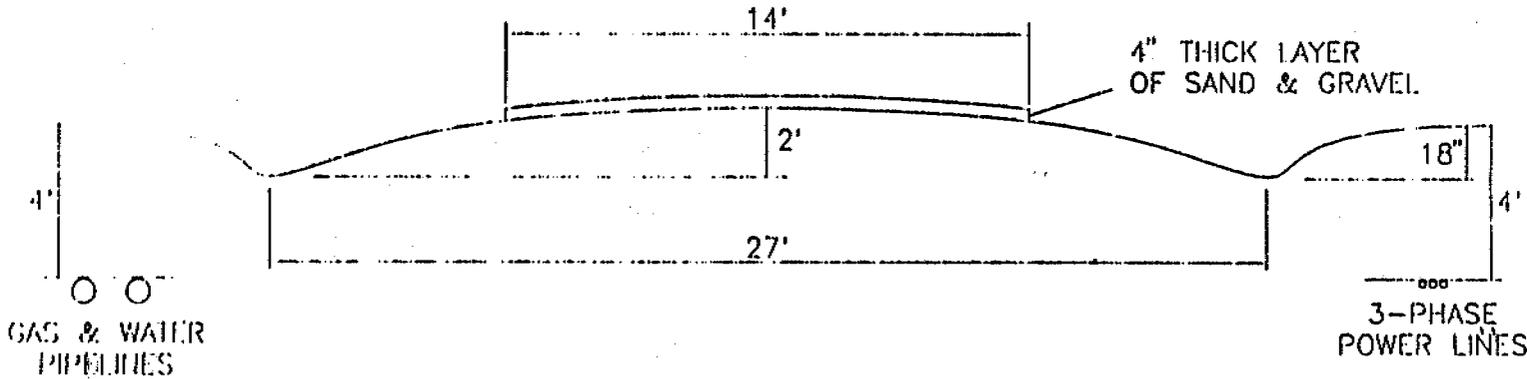


CONTOUR INTERVAL 20 FEET  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929



QUADRANGLE LOCATION

# RIVER GAS CORPORATION

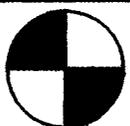
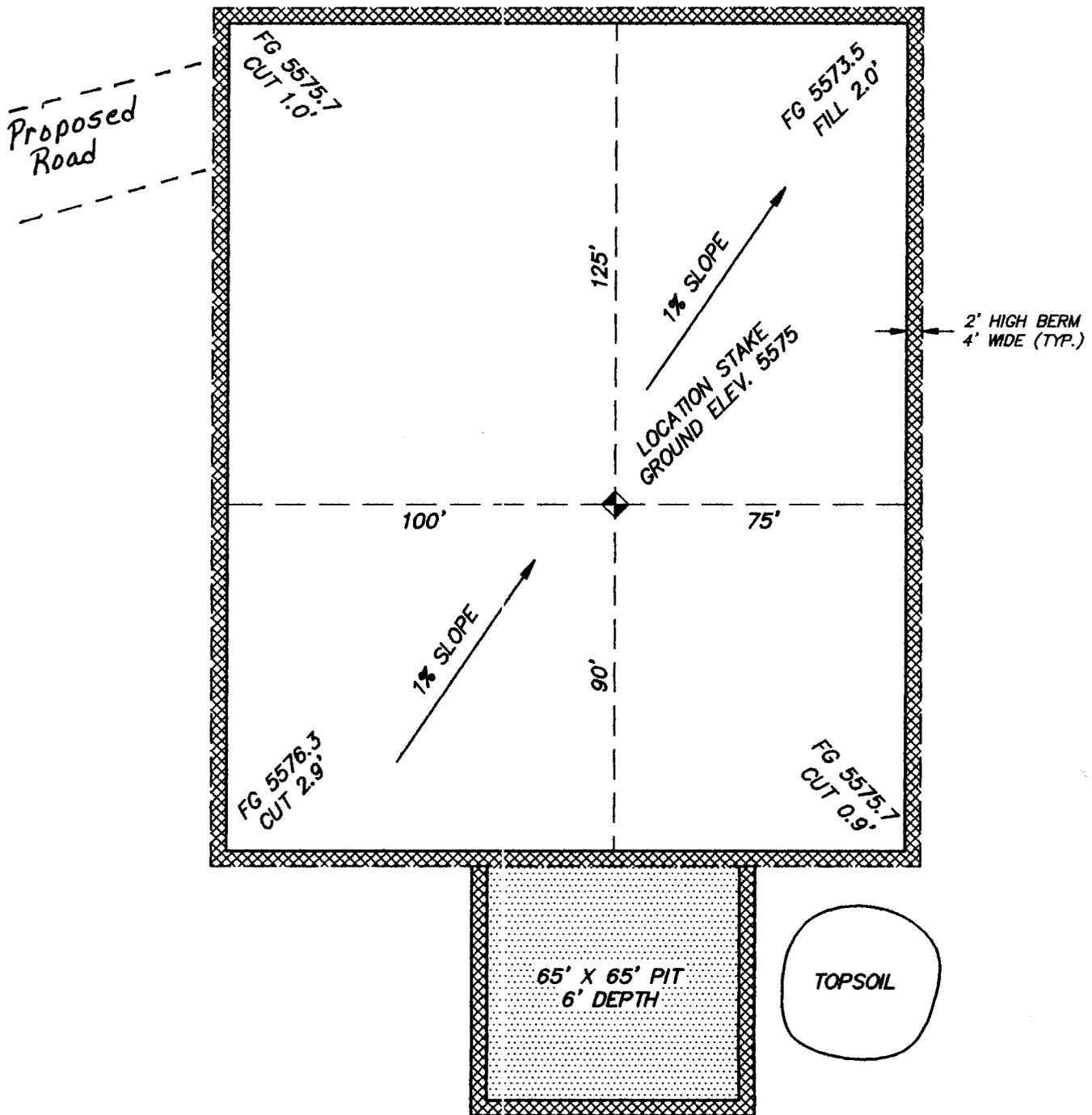
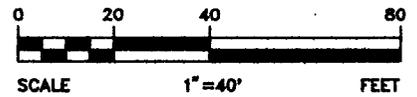
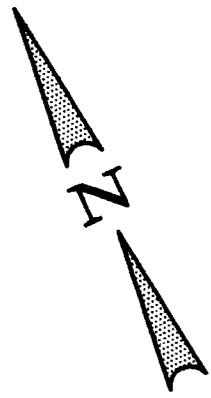


## TYPICAL ROAD CROSS-SECTION

NOT TO SCALE

3/23/95

# RIVER GAS CORPORATION JENSEN #16-132 LOCATION PIT & PAD LAYOUT



**Powers Elevation  
Co., Inc.**

OIL FIELD ENGINEERS & SURVEYORS  
13900 E. HARVARD AVE., SUITE 113  
AURORA, CO. 80014  
(303) 321-2217 FAX (303) 321-2218

FG = FINISHED GRADE

Scale : 1"=40' Date : 10-21-95

Surveyed & Drawn by: AMMERMAN

Checked : AMMERMAN

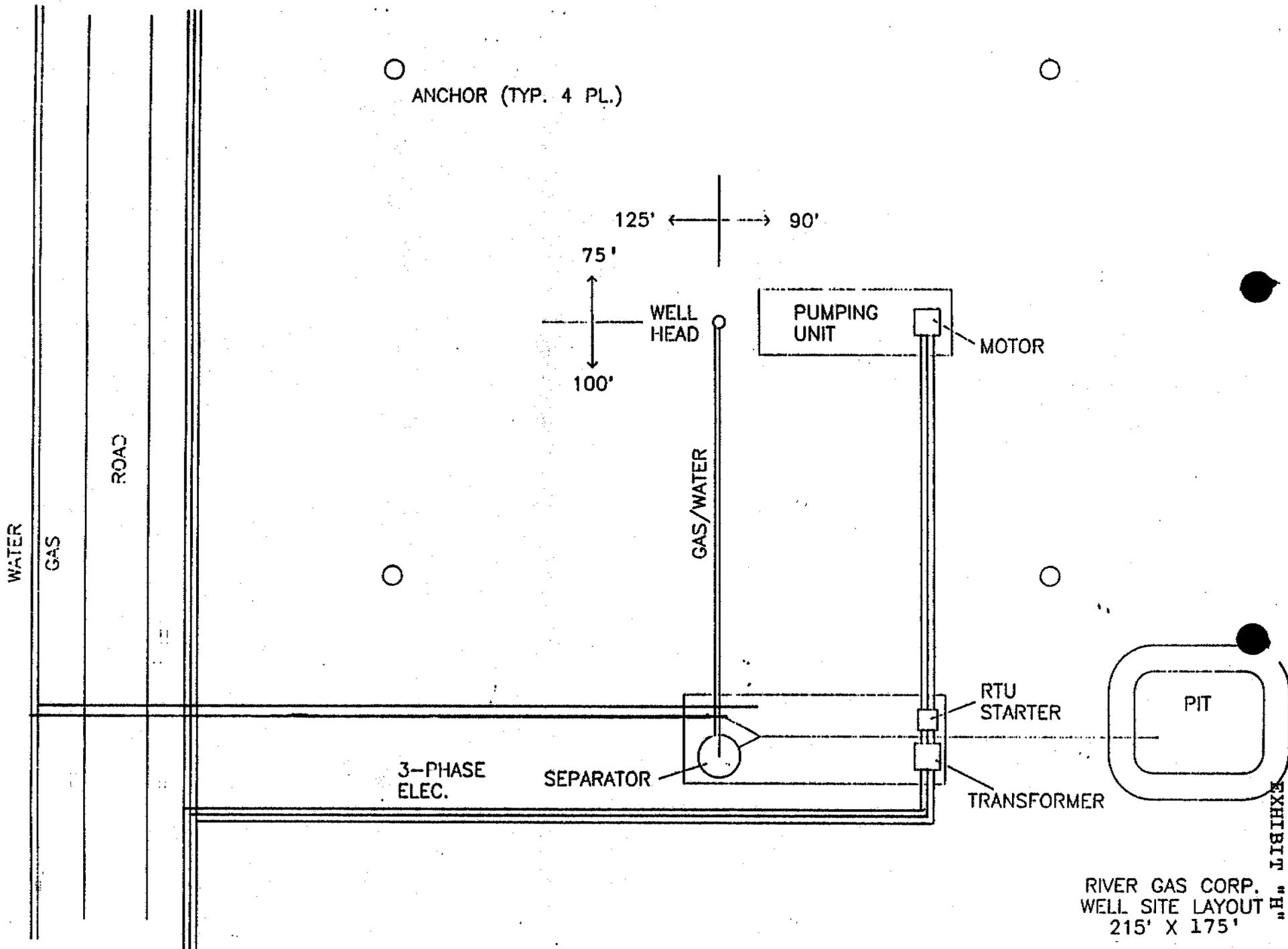
Dwg. File : \DWGR12\RGC\16-132P

**CLIENT:**  
RIVER GAS CORPORATION  
290 South Highway 55, Box 638  
Price, Utah 84501-0638  
(801) 637-8876/(801) 637-6835

**PIT & PAD LAYOUT**  
JENSEN #16-132 WELL LOCATION  
SW 1/4 SECTION 16  
T 15 S, R 10 E  
SALT LAKE MERIDIAN  
CARBON COUNTY, UTAH

**SHEET**  
2  
OF  
2

ANCHOR (TYP. 4 PL.)



RIVER GAS CORP.  
WELL SITE LAYOUT  
215' X 175'

EXHIBIT "H"

AmSouth Bank

EXHIBIT "I"

Birmingham:

TELEX: 6827189  
Cable: AMSOUBKBHM  
S.W.I.F.T. AMSB US 44

AMSOUTH BANK OF ALABAMA  
1900 FIFTH AVENUE NORTH  
BIRMINGHAM, ALABAMA 35203 USA  
OUR REFERENCE NUMBER: S308586

International Services

Mobile:

TELEX: 6821116  
Cable: AMSOMBL  
S.W.I.F.T. AMSB US 44

AMENDMENT NUMBER: 002  
TO LETTER OF CREDIT NUMBER: S308586  
DATE: NOVEMBER 13, 1995

BENEFICIARY:  
STATE OF UTAH  
DEPT. OF NATURAL RESOURCES  
DIV. OF OIL, GAS AND MINING  
355 WEST TEMPLE 3 TRIAD CENTER  
SUITE 350  
SALT LAKE CITY, UTAH 84180-1203

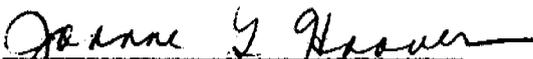
AT THE REQUEST OF RIVER GAS CORPORATION 3600 WATERMELON ROAD  
SUITE 204 NORTHPORT, ALABAMA 35476 AND FOR THE ACCOUNT OF SAME

WE HEREBY AMEND OUR LETTER OF CREDIT NUMBER S308586 DATED  
DECEMBER 3, 1993 OPENED IN YOUR FAVOR AS FOLLOWS:

-ACCOUNT PARTY'S ADDRESS IS CHANGED  
TO: 511 ENERGY CENTER BLVD  
NORTHPORT, ALABAMA 35476

\*\*REFERENCES HEREIN TO AMSOUTH BANK N.A. SHALL BE DEEMED TO REFER  
TO AMSOUTH BANK OF ALABAMA.\*\*

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.  
THIS AMENDMENT BECOMES AN INTEGRAL PART OF THE ORIGINAL LETTER OF  
CREDIT AND IS TO BE ATTACHED THERETO.

  
AUTHORIZED SIGNATURE

**AmSouth Bank**

EXHIBIT "I"

**Birmingham:**

AMSouth BANK OF ALABAMA  
1900 FIFTH AVENUE NORTH  
BIRMINGHAM, ALABAMA 35203 USA  
OUR REFERENCE NUMBER: S304606

International Services

TELEX: 6827189  
Cable: AMSOUBKBHM  
S.W.I.F.T. AMSB US 44

**Mobile:**

TELEX: 6821116  
Cable: AMSOMBL  
S.W.I.F.T. AMSB US 44

AMENDMENT NUMBER: 005  
TO LETTER OF CREDIT NUMBER: S304606  
DATE: NOVEMBER 13, 1995

**BENEFICIARY:**

STATE OF UTAH, DEPARTMENT OF  
NATURAL RESOURCES, DIVISION OF  
STATE LANDS AND FORESTRY  
#3 TRIAD CENTER SUITE 400  
355 WEST TEMPLE  
SALT LAKE CITY, UTAH 84180-1204

AT THE REQUEST OF RIVER GAS CORPORATION 511 ENERGY CENTER BLVD  
NORTHPORT, ALABAMA 35476

WE HEREBY AMEND OUR LETTER OF CREDIT NUMBER S304606 DATED  
DECEMBER 14, 1990 OPENED IN YOUR FAVOR AS FOLLOWS:

-ACCOUNT PARTY'S ADDRESS IS CHANGES TO:  
511 ENERGY CENTER BLVD.  
NORTHPORT, ALABAMA 35476

\*\*REFERENCES HEREIN TO AMSOUTH BANK N.A. SHALL BE DEEMED TO REFER  
TO AMSOUTH BANK OF ALABAMA.\*\*

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.  
THIS AMENDMENT BECOMES AN INTEGRAL PART OF THE ORIGINAL LETTER OF  
CREDIT AND IS TO BE ATTACHED THERETO.

  
AUTHORIZED SIGNATURE

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/29/95

API NO. ASSIGNED: 43-007-30312

WELL NAME: JENSEN 16-132  
OPERATOR: RIVER GAS CORPORATION (N1605)

PROPOSED LOCATION:  
SWSW 16 - T15S - R10E  
SURFACE: 1206-FSL-1240-FWL  
BOTTOM: 1206-FSL-1240-FWL  
CARBON COUNTY  
UNDESIGNATED FIELD (002)

INSPECT LOCATION BY: 05/01/96		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface	CJL	7/3/96

LEASE TYPE: FEE  
LEASE NUMBER: PATENTED

PROPOSED PRODUCING FORMATION: FRSD

RECEIVED AND/OR REVIEWED:

Plat  
 Bond: Federal[] State[] Fee[]  
(Number \_\_\_\_\_)  
 Potash (Y/N)  
 Oil shale (Y/N)  
 Water permit  
(Number \_\_\_\_\_)  
 RDCC Review (Y/N)  
(Date: \_\_\_\_\_)

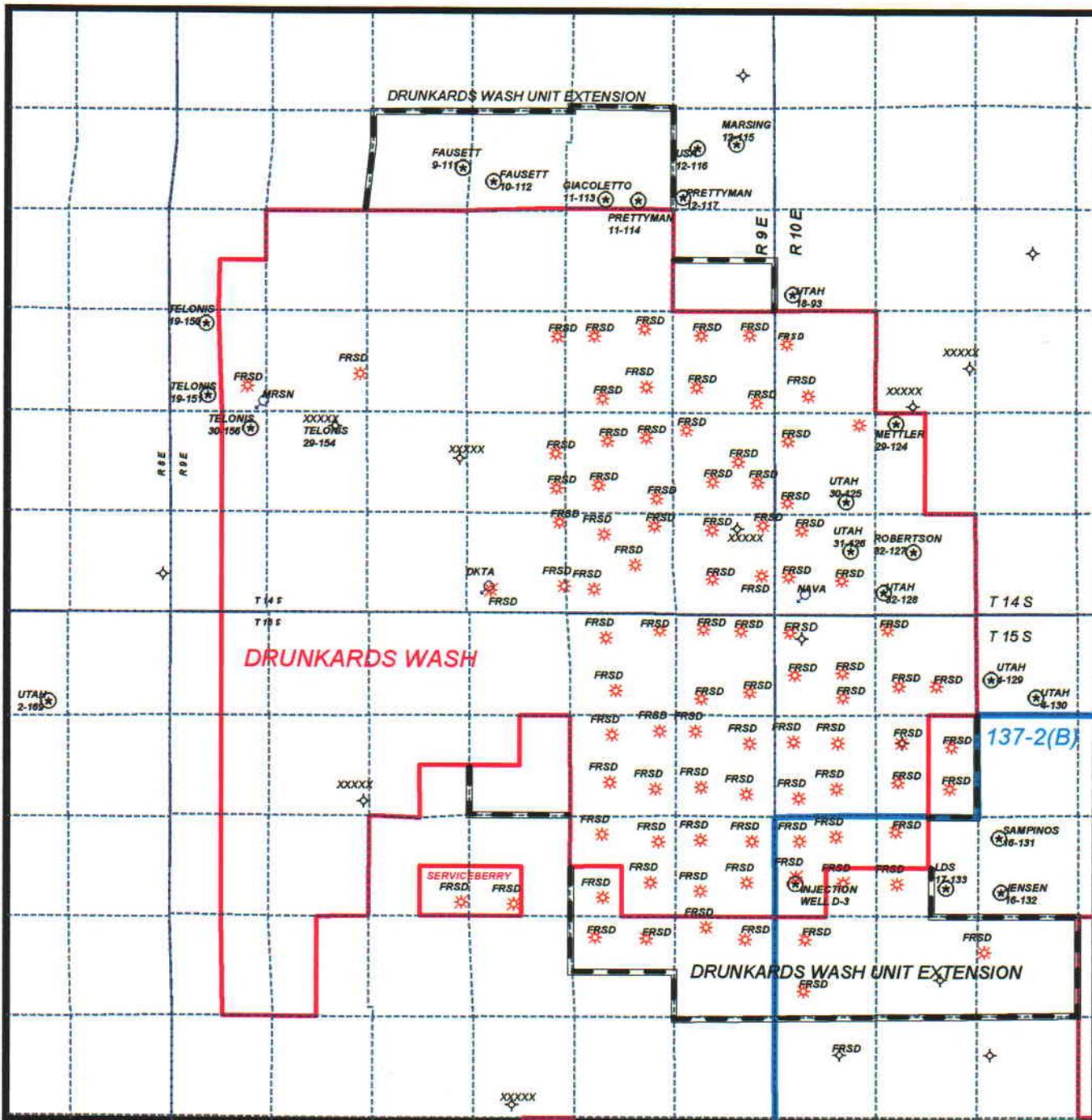
LOCATION AND SITING:

R649-2-3. Unit: \_\_\_\_\_  
 R649-3-2. General.  
 R649-3-3. Exception.  
 Drilling Unit.  
Board Cause no: \_\_\_\_\_  
Date: \_\_\_\_\_

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

STIPULATIONS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# RIVER GAS CORPORATION DEVELOPMENT & EXTENSION DRILLING CARBON COUNTY UAC R649-2-3. R649-3-3, & R649-3-2



**PREPARED:  
DATE: 20-FEB-96**

**DIVISION OF OIL, GAS AND MINING**  
**APPLICATION FOR PERMIT TO DRILL**  
**STATEMENT OF BASIS**

**Operator Name:** River Gas Corporation

**Name & Number:** Jensen 16-132

**API Number:** 43-007-30312

**Location:** 1/4,1/4 SW SW Sec. 16 T. 15S R. 10E

**Geology/Ground Water:**

There are no aquifers with high quality ground water expected to be encountered. The proposed casing and cement program will adequately isolate any zones of water penetrated.

**Reviewer:** D. Jarvis

**Date:** 7/3/96

**Surface:**

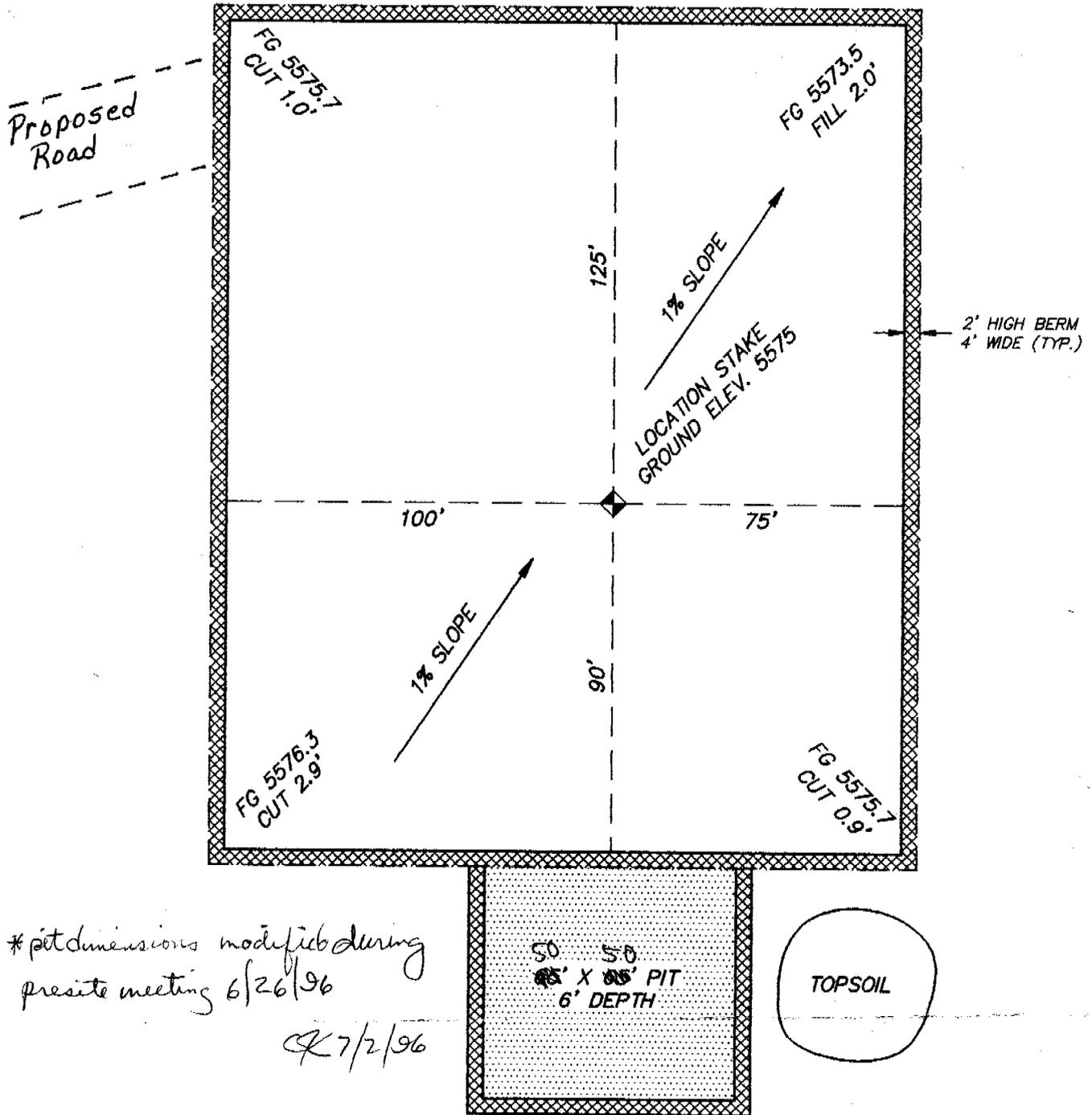
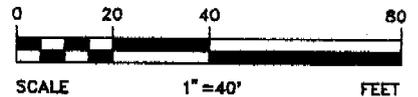
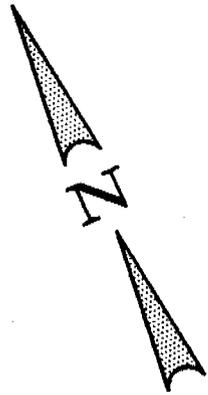
The Mancos Shale soil is relatively impermeable, stable and not incised or undermined on, or immediately beside, the disturbed area. The nearest moving surface waters are the Carbon Canal (1800' away) and Miller Creek (800' away). Because of road and ditch patterns and the canal, the inage basin is limited so flash-flooding is unlikely to be a problem. Precipitation will be deflected around the location with berms and culverts. There are no nearby culinary of irrigation water supply wells. The site was photographed and characterized on 6/26/96. Provision was made to ensure site rehabilitation, litter and waste control, preservation of drainage patterns and the integrity of local infrastructure, groundwater and other resources. The well utilities and gas gathering system will follow the approach roadway.

**Reviewer:** Christopher J. Kierst **Date:** 7/3/96

**Conditions of Approval/Application for Permit to Drill:**

- 1) Culverts outside pad berm and in irrigation ditch.
- 2) berm location and pit.
- 3) Site infrastructure as per modified drilling location plat.
- 4) Native clay lined pit.
- 5) Compliance with local ordnances as well as DOGM requirements.

# RIVER GAS CORPORATION JENSEN #16-132 LOCATION PIT & PAD LAYOUT



\* pit dimensions modified during presite meeting 6/26/96  
 K 7/2/96

FG = FINISHED GRADE



**Powers Elevation Co., Inc.**  
 OIL FIELD ENGINEERS & SURVEYORS  
 13900 E. HARVARD AVE., SUITE 113  
 AURORA, CO. 80014  
 (303) 321-2217 FAX (303) 321-2218

Scale : 1"=40'      Date : 10-21-95  
 Surveyed & Drawn by: AMMERMAN  
 Checked : AMMERMAN  
 Dwg. File : \DWGR12\RGC\16-132P

**CLIENT:**  
 RIVER GAS CORPORATION  
 290 South Highway 55, Box 638  
 Price, Utah 84501-0638  
 (801) 637-8876 / (801) 637-6836

**PIT & PAD LAYOUT**  
 JENSEN #16-132 WELL LOCATION  
 SW 1/4 SECTION 16  
 T 15 S, R 10 E  
 SALT LAKE MERIDIAN  
 CARBON COUNTY, UTAH

**SHEET**  
 2  
**OF**  
 2

ON-SITE PREDRILL EVALUATION

Division of Oil, Gas and Mining

OPERATOR: River Gas Corporation

WELL NAME & NUMBER: Jensen 16-132

API NUMBER: 43-007-30312

LEASE: Fee (Jensen) FIELD/UNIT: undesignated

LOCATION: 1/4,1/4 SW SW Sec: 16 TWP: 15S RNG: 10E 1206 FSL 1240 FWL

LEGAL WELL SITING: 1206'F SEC. LINE; 80'F 1/4,1/4 LINE; \_\_\_\_\_F ANOTHER WELL.

GPS COORD (UTM): 516,267; 4,373,905

SURFACE OWNER: LDS church, 50 E. N. Temple, Salt Lake City, UT 84150

PARTICIPANTS

C. Kierst (DOGM), S. Prince (RGC), L. Jensen (Nelco) Surface owner representative was unable to attend on 6/26/96 so the presite was reconvened and recapitulated on 6/27/96 to accomodate his desire to attend.

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Mancos Shale lowlands east of Wasatch Plateau (11 miles east)/ flat ground 1.25 miles south of Mancos Shale-derived alluvial erosional remnants. Gentle slope to Miller Creek (approximately 800 feet north) and with Carbon Canal looping around location as near as 3/8 mile to the south.

SURFACE USE PLAN

CURRENT SURFACE USE: Agricultural land and wildlife habitat.

PROPOSED SURFACE DISTURBANCE: 215' X 175' pad with 50' X 50' X 6' attached pit and approximately 2600' approach road.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: 21-83 and proposed LDS 17-133

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: Residential utilities are approximately 3/8 mile away. Well utilities and gathering system will follow approach road. Production infrastructure will include four rig anchors, pumping unit, RTU starter, separator, and transformer.

SOURCE OF CONSTRUCTION MATERIAL: gravel location and approach road; soil stored in berm.

ANCILLARY FACILITIES: none

WASTE MANAGEMENT PLAN:

Portable toilets; garbage cans on location will be emptied into centralized dumpsters which will be emptied into an approved landfill.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: This location is in an irrigated pasture, is 800' from Miller Creek and 1800' from Carbon Canal.

FLORA/FAUNA: grass, russian olive / birds, lizards, coyotes, rodents

SOIL TYPE AND CHARACTERISTICS: light gray and bentonitic; a low permeability.

SURFACE FORMATION & CHARACTERISTICS: Mancos Shale, light gray, bentonitic

EROSION/SEDIMENTATION/STABILITY: stable ground

PALEONTOLOGICAL POTENTIAL: poor

RESERVE PIT

CHARACTERISTICS: natural soil, dugout and bermed to deflect runoff.

LINER REQUIREMENTS (Site Ranking Form attached): native clay

SURFACE RESTORATION/RECLAMATION PLAN

Recorded affidavit will be mailed to DOGM after recording; it was received at RGC offices today

SURFACE AGREEMENT: I have seen it and RGC says it will be mailed.

CULTURAL RESOURCES/ARCHAEOLOGY: none

OTHER OBSERVATIONS/COMMENTS

Exception location needed. At least four culverts on approach road,  
including outside pad berm (one for each irrigation ditch.

ATTACHMENTS:

3-4 photographs

Chris Kierst  
DOGM REPRESENTATIVE

7/3/96 11:00 AM  
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score  
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	<u>0</u>
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	<u>0</u>
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>0</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid containing significant levels of hazardous constituents	15  20	  <u>0</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>0</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>5</u>
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	<u>6</u>
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>0</u>

**Final Score**      11      (Level III Sensitivity)

STATE OF UTAH, DIV OF OIL, GAS & MINERALS

Operator: RIVER GAS CORPORATION	Well Name: JENSEN 16-132
Project ID: 43-007-30312	Location: SEC. 16 - T15S - R10E

Design Parameters:

Mud weight ( 8.33 ppg) : 0.433 psi/ft  
 Shut in surface pressure : 1346 psi  
 Internal gradient (burst) : 0.035 psi/ft  
 Annular gradient (burst) : 0.000 psi/ft  
 Tensile load is determined using air weight  
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125  
 Burst : 1.00  
 8 Round : 1.80 (J)  
 Buttress : 1.60 (J)  
 Other : 1.50 (J)  
 Body Yield : 1.50 (B)

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost
1	1,395	5.500	17.00	K-55	ST&C	1,395	4.767

	Collapse Load (psi)	Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)	Strgth (kips)	S.F.
1	604	4910	8.129	1395	5320	3.81	23.72	252	10.63 J

Prepared by : MATTHEWS, Salt Lake City, Utah  
 Date : 07-12-1996  
 Remarks :

**COALBED METHANE**

Minimum segment length for the 1,395 foot well is 100 feet.  
 SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas temperature of 87°F (Surface 74°F , BHT 94°F & temp. gradient 1.400°/100 ft.)  
 String type: Production - Frac  
 The frac gradient of 1.000 psi/ft results in an injection pressure of 1,395 psi.  
 The mud gradient and bottom hole pressures (for burst) are 0.433 psi/ft and 1,395 psi, respectively.

**NOTE:** The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - collapse (with evacuated casing), 1.0 - (uniaxial) burst, 1.8 - API 8rd tension, 1.6 - buttress tension, 1.5 - body yield tension, and 1.6 - EUE 8rd tension. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.  
 Costs for this design are based on a 1987 pricing model. (Version 1.07)



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

July 15, 1996

Steven Prince  
River Gas Corporation  
1305 South 100 East  
Price, Utah 84501

Re: Jensen 16-132 Well, 1206' FSL, 1240' FWL, SW SW, Sec. 16,  
T. 15 S., R. 10 E., Carbon County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-007-30312.

Sincerely,

R. J. Firth  
Associate Director

lwp

Enclosures

cc: Carbon County Assessor  
Bureau of Land Management, Moab District Office



Operator:                     River Gas Corporation                      
Well Name & Number:           Jensen 16-132                      
API Number:                   43-007-30312                      
Lease:                           FEE                              
Location:       SW SW       Sec.       16       T.       15 S.       R.       10 E.      

### Conditions of Approval

1. General  
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.
  
2. Notification Requirements  
Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5336.  
  
Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews at (801)538-5334 or Mike Hebertson at (801)538-5333.
  
3. Reporting Requirements  
All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.
  
4. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis dated July 3, 1996 (copy attached).



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

August 6, 1997

Mr. Steven L. Prince  
River Gas Corporation  
1305 South 100 East  
Price, Utah 84501

Re: Jensen 16-132 Well, Sec. 16, T. 15S, R. 10E, Carbon County, Utah,  
API No. 43-007-30312

Dear Mr. Prince:

Due to excessive time delay in commencing drilling operations, approval to drill the subject well is hereby rescinded, effective immediately.

Please note that a new Application for Permit to Drill must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division of Oil, Gas and Mining immediately.

Sincerely,

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

Don Staley  
Administrative Manager  
Oil and Gas

cc: J.R. Baza  
K.M. Hebertson  
Well File