

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

|   |  |
|---|--|
| 1a. Type of Work<br>DRILL   | 5. Lease Number<br>SF-080713A<br>Unit Reporting Number   |
| 1b. Type of Well<br>GAS   | 6. If Indian, All. or Tribe  |
| 2. Operator<br><b>BURLINGTON RESOURCES</b> Oil & Gas Company                              | 7. Unit Agreement Name<br>San Juan 30-6 Unit   |
| 3. Address & Phone No. of Operator<br>PO Box 4289, Farmington, NM 87499<br>(505) 326-9700 | 8. Farm or Lease Name<br>San Juan 30-6 Unit<br>9. Well Number<br>145   |
| 4. Location of Well<br>1935' FNL, 935' FWL,<br>Latitude 36° 48.0, Longitude 107° 27.4     | 10. Field, Pool, Wildcat<br>Basin Dakota<br>11. Sec., Twn, Rge, Mer. (NMPM)<br>Sec. 22, T-30-N, R-6-W<br>APT# 30-039- <u>26772</u> |
| 14. Distance in Miles from Nearest Town<br>25 miles from Navajo City                      | 12. County<br>Rio Arriba<br>13. State<br>NM  |
| 15. Distance from Proposed Location to Nearest Property or Lease Line<br>935'             | 17. Acres Assigned to Well<br><u>319.13</u> W/2<br><u>326.00</u>   |
| 16. Acres in Lease  | 18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease<br>140'                             |
| 19. Proposed Depth<br>8200'   | 20. Rotary or Cable Tools<br>Rotary  |
| 21. Elevations (DF, FT, GR, Etc.)<br>6635' GR   | 22. Approx. Date Work will Start   |
| 23. Proposed Casing and Cementing Program<br>See Operations Plan attached                 | 24. Authorized by: <u>Joey Cale</u><br>Regulatory/Compliance Supervisor  |
|   | Date <u>6-28-01</u>  |

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY /s/ Joel Farrell TITLE \_\_\_\_\_ DATE AUG - 1

Archaeological Report to be submitted

Threatened and Endangered Species Report to be submitted

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or presentations as to any matter within its jurisdiction.

District I  
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

District II  
PO Drawer 00, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

|                              |  |   |  |                             |                      |
|------------------------------|--|---|--|-----------------------------|----------------------|
| 1 API Number<br>30-039-26772 |  | 2 Pool Code<br>71599                                      |  | 3 Pool Name<br>Basin Dakota |                      |
| 4 Property Code<br>7469      |  | 5 Property Name<br>SAN JUAN 30-6 UNIT                     |  |                             | 6 Well Number<br>145 |
| 7 OGRID No.<br>14538         |  | 8 Operator Name<br>BURLINGTON RESOURCES OIL & GAS COMPANY |  |                             | 9 Elevation<br>6635  |

#### 10 Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| E             | 22      | 30N      | 6W    |         | 1935          | NORTH            | 935           | WEST           | RIO ARriba |

#### 11 Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|               |         |          |       |         |               |                  |               |                |        |

|                                 |                    |                       |              |
|---------------------------------|--------------------|-----------------------|--------------|
| 12 Dedicated Acres<br>DK-W/ 320 | 13 Joint or Infill | 14 Consolidation Code | 15 Order No. |
|---------------------------------|--------------------|-----------------------|--------------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

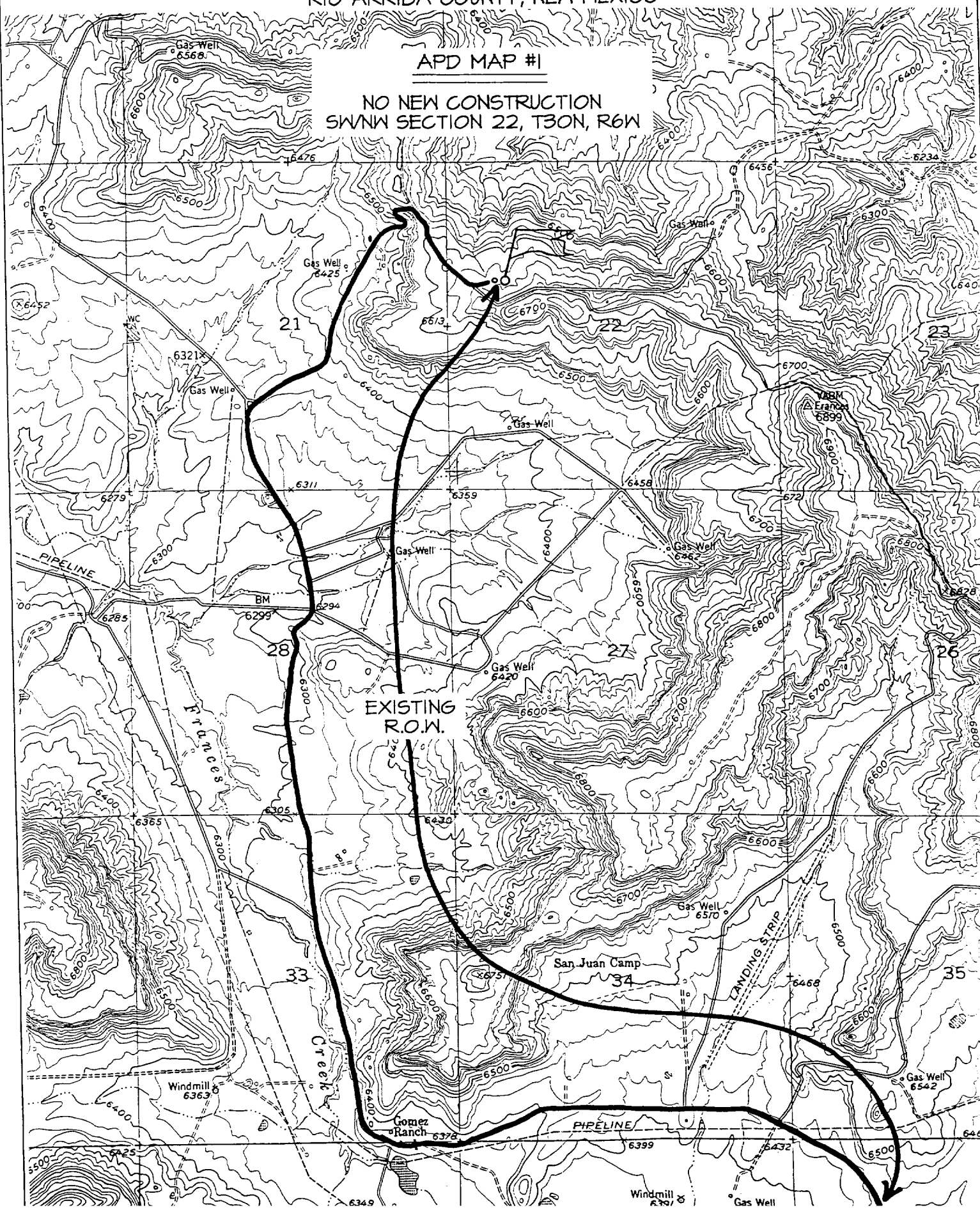
|                             |  |
|-----------------------------|--|
| <div>16</div> <div>22</div> | <div>17 OPERATOR CERTIFICATION</div> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Peggy Cole</i><br/>Signature<br/>Peggy Cole<br/>Printed Name<br/>Regulatory Supervisor<br/>Title<br/>5-8-01<br/>Date</p>   |
|                             | <div>18 SURVEYOR CERTIFICATION</div> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>DECEMBER 6, 2000<br/>Date of Survey<br/><i>Neale C. Edwards</i><br/>Signature and Seal<br/><br/>Certificate Number 6857</p> |

# BURLINGTON RESOURCES OIL & GAS COMPANY SAN JUAN 30-6 UNIT #145

1935' FNL & 935' FWL, SECTION 22, T30N, R6W, N.M.P.M.  
RIO ARriba COUNTY, NEW MEXICO

APD MAP #1

NO NEW CONSTRUCTION  
SWNW SECTION 22, T30N, R6W



## OPERATIONS PLAN

**Well Name:** San Juan 30-6 Unit #145  
**Location:** 1935' FNL, 935' FWL, Sec 22, T-30-N, R-6-W  
Rio Arriba County, NM  
Latitude 36° 48.0, Longitude 107° 27.4  
**Formation:** Basin Dakota  
**Elevation:** 6635' GL

| <u>Formation Tops:</u> | <u>Top</u>   | <u>Bottom</u> | <u>Contents</u> |
|------------------------|--------------|---------------|-----------------|
| Surface                | San Jose     | 2581'         |                 |
| Ojo Alamo              | 2581'        | 2771'         | aquifer         |
| Kirtland               | 2771'        | 3196'         | gas             |
| Fruitland              | 3196'        | 3550'         | gas             |
| Pictured Cliffs        | 3550'        | 3798'         | gas             |
| Lewis                  | 3798'        | 4251'         | gas             |
| <b>Intermediate TD</b> | <b>3898'</b> |               |                 |
| Mesa Verde             | 4251'        | 4622'         | gas             |
| Chacra                 | 4622'        | 5456'         | gas             |
| Massive Cliff House    | 5456'        | 5486'         | gas             |
| Menefee                | 5486'        | 5881'         | gas             |
| Massive Point Lookout  | 5881'        | 6156'         | gas             |
| Mancos                 | 6156'        | 6813'         | gas             |
| Gallup                 | 6813'        | 7752'         | gas             |
| Greenhorn              | 7752'        | 7807'         | gas             |
| Graneros               | 7807'        | 7900'         | gas             |
| Dakota                 | 7900'        |               | gas             |
| <b>TD</b>              | <b>8200'</b> |               |                 |

### Logging Program:

Mud logs - TD to 7500'  
Open hole - DIL-GR, TD to 200', CNL-CDL, ML, CMR - TD to 5456'  
Cased hole - CBL-CCL-GR - TD to surface  
Cores - none

### Mud Program:

| <u>Interval</u> | <u>Type</u> | <u>Weight</u> | <u>Vis.</u> | <u>Fluid Loss</u> |
|-----------------|-------------|---------------|-------------|-------------------|
| 0- 200'         | Spud        | 8.4-9.0       | 40-50       | no control        |
| 200- 3898'      | LSND        | 8.4-9.0       | 30-60       | no control        |
| 3898- 8200'     | Air/N2      | n/a           | n/a         | n/a               |

Pit levels will be visually monitored to detect gain or loss of fluid control.

### Casing Program (as listed, the equivalent, or better):

| <u>Hole Size</u> | <u>Depth Interval</u> | <u>Csg. Size</u> | <u>Wt.</u> | <u>Grade</u> |
|------------------|-----------------------|------------------|------------|--------------|
| 12 1/4"          | 0' - 200'             | 9 5/8"           | 32.3#      | WC-50        |
| 8 3/4"           | 0' - 3898'            | 7"               | 20.0#      | J-55         |
| 6 1/4"           | 3798' - 8200'         | 4 1/2"           | 10.5#      | K-55         |

### Tubing Program:

0' - 8200'      2 3/8"      4.7#      J-55

### BOP Specifications, Wellhead and Tests:

#### **Surface to Intermediate TD -**

11" 3000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

#### **Intermediate TD to Total Depth -**

11" 3000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

#### **Surface to Total Depth -**

2" nominal, 3000 psi minimum choke manifold (Reference Figure #2).

**Completion Operations -**

7 1/16" 3000 psi double gate BOP stack (Reference Figure #3). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

**Wellhead -**

9 5/8" x 7" x 2 3/8" x 3000 psi tree assembly.

**General -**

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drilling crew.
- All BOP tests and drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

**Cementing:**

9 5/8" surface casing - cement with 159 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

**7" intermediate casing -**

Lead w/410 sx 50/50 Class "G" TXI Liteweight cement with 2.5% sodium metasilicate, 10 pps Gilsonite, 2% calcium chloride and 0.5 pps flocele. Tail w/90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.25 pps Flocele (1172 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

See attached alternative intermediate lead slurry.

7" intermediate casing alternative two stage: Stage collar 3096'. First stage: cement with w/188 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps gilsonite, 0.25 pps Flocele. Second stage: 361 sx 50/50 Class "G"/TXI Liteweight with 2.5% sodium metasilicate, 10 pps Gilsonite, 2% calcium chloride, 0.5 pps Flocele (1172 cu.ft., 100% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 2771'. Two turbolating centralizers at the base of the Ojo Alamo at 2771'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

**4 1/2" Production Liner -**

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 439 sx 50/50 Class "G" Poz with 5% gel, 0.25 pps flocele, 5 pps Gilsonite (632 cu.ft.), 40% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

Cement float shoe on bottom with float collar spaced on top of shoe joint.