

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

| | |
|---|---|
| 1a. Type of Work DRILL | 5. Lease Number SF-079386 Unit Reporting Number |
| 1b. Type of Well GAS | 6. If Indian, All. or Tribe |
| 2. Operator BURLINGTON RESOURCES Oil & Gas Company | 7. Unit Agreement Name San Juan 28-6 Unit |
| 3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700 | 8. Farm or Lease Name San Juan 28-6 Unit 9. Well Number 94M |
| 4. Location of Well 1120' FSL, 1980' FEL Latitude 36° 36.8, Longitude 107° 25.0 | 10. Field, Pool, Wildcat Blanco MV/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) 0 Sec. 36, T-28-N, R-6-W API # 30-039-26644 |
| 14. Distance in Miles from Nearest Town 7 miles from Gobernador | 12. County Rio Arriba 13. State NM |
| 15. Distance from Proposed Location to Nearest Property or Lease Line 1120' | |
| 16. Acres in Lease | 17. Acres Assigned to Well 320.23 E/2 |
| 18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 1100' | |
| 19. Proposed Depth 7578' - | 20. Rotary or Cable Tools Rotary |
| 21. Elevations (DF, FT, GR, Etc.) 6346' GR | 22. Approx. Date Work will Start |
| 23. Proposed Casing and Cementing Program See Operations Plan attached | DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS" |
| 24. Authorized by: <u>Peggy Case</u> Regulatory/Compliance Supervisor | Date <u>11-30-00</u> |

PERMIT NO. _____ APPROVAL DATE 5/4/01
APPROVED BY /s/ Lee Otteri TITLE _____ DATE MAY 4

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.

NM000

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

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

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

PO Box 2088
Santa Fe, NM 87504-2088

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | |
|-------------------------------------|--|---------------------------|---|
| *API Number 30-039- <i>26644</i> | | *Pool Code 72319/71599 | *Pool Name Blanco Mesaverde/Basin Dakota |
| *Property Code 7462 | *Property Name SAN JUAN 28-6 UNIT | | *Well Number 94M |
| *OGRID No. 14538 | *Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY | | *Elevation 6346' |

10 Surface Location

| UL or lot no. | Section | Township | Range | Lot Idh | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| 0 | 36 | 28N | 6W | | 1120 | SOUTH | 1980 | EAST | RIO ARriba |

11 Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idh | Feet from the | North/South line | Feet from the | East/West line | County |
|--|---------|--------------------|-------|-----------------------|---------------|------------------|---------------|----------------|--------|
| | | | | | | | | | |
| 12 Dedicated Acres MV-E/320.23 DK-E/320.23 | | 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

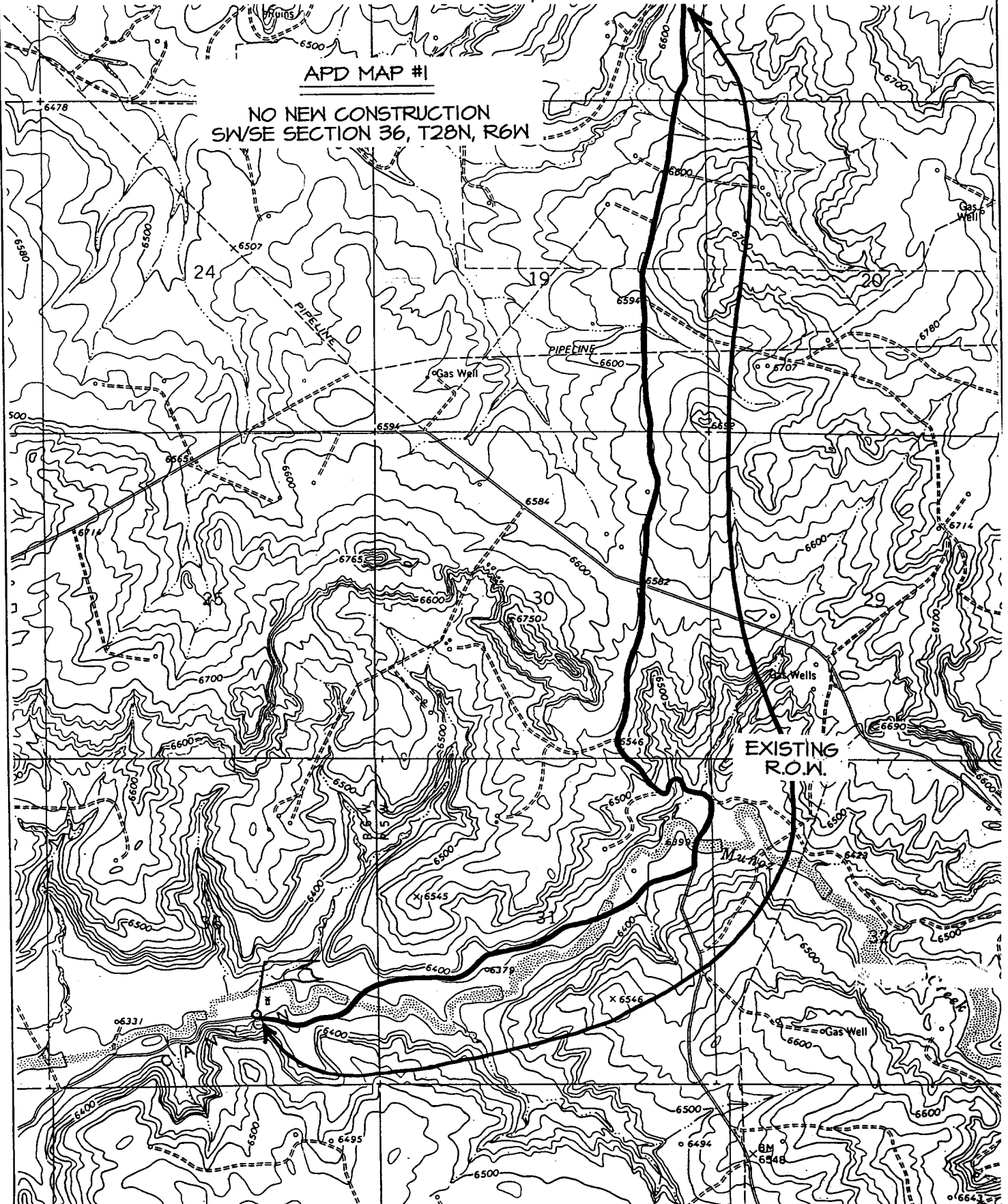
| | |
|---------------|--|
| <div>15</div> | <div>17 OPERATOR CERTIFICATION</div> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Peggy Cole</i> Signature Peggy Cole Printed Name Regulatory Supervisor Title 11-30-00 Date</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>OCTOBER 25, 2000 Date of Survey Signature and Seal Certificate Number 6857</p> |

BURLINGTON RESOURCES OIL & GAS COMPANY SAN JUAN 28-6 UNIT #94M

1120' FSL & 1980' FEL, SECTION 36, T28N, R6W, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO

APD MAP #1

NO NEW CONSTRUCTION
SWSE SECTION 36, T28N, R6W



OPERATIONS PLAN

Well Name: San Juan 28-6 Unit #94M
Location: 1120' FSL, 1980' FEL, Sec 36, T-28-N, R-6-W
Rio Arriba County, NM
Latitude 36° 36.8, Longitude 107° 25.0
Formation: Blanco Mesaverde/Basin Dakota
Elevation: 6346' GL

| <u>Formation Tops:</u> | <u>Top</u> | <u>Bottom</u> | <u>Contents</u> |
|------------------------|---------------|---------------|-----------------|
| Surface | San Jose | 2408' | |
| Ojo Alamo | 2408' | 2568' | aquifer |
| Kirtland | 2568' | 2758' | gas |
| Fruitland | 2758' | 3118' | gas |
| Pictured Cliffs | 3118' | 3223' | gas |
| Lewis | 3223' | 3723' | gas |
| Intermediate TD | 3323' | | |
| Mesa Verde | 3723' | 4083' | gas |
| Chacra | 4083' | 4918' | gas |
| Massive Cliff House | 4918' | 4958' | gas |
| Menefee | 4958' | 5313' | gas |
| Massive Point Lookout | 5313' | 5808' | gas |
| Mancos | 5808' | 6493' | gas |
| Gallup | 6493' | 7243' | gas |
| Greenhorn | 7243' | 7303' | gas |
| Graneros | 7303' | 7338' | gas |
| Dakota | 7338' | | gas |
| TD | 7578'— | | |

Logging Program:

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- 3323' | LSND | 8.4-9.0 | 30-60 | no control |
| 3323- 7578' | Gas | 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' - 3323' | 7" | 20.0# | J-55 |
| 6 1/4" | 3223' - 7578'— | 4 1/2" | 10.5# | K-55 |

Tubing Program:

0' - 7578'— 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 "G" 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/343 sx 50/50 Class "G" TXI Liteweight cement with 2.5% sodium metasilicate, 5 pps Gilsonite and 0.5 pps flocele. Tail w/90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.5 pps Flocele (1000 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.

7" intermediate casing alternative two stage: Stage collar at 2658'. First stage: cement with w/156 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps gilsonite, 0.5 pps Flocele. Second stage: 310 sx 50/50 Class "G"/TXI Liteweight with 2.5% sodium metasilicate, 5 pps Gilsonite, 0.5 pps Flocele (1000 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 2568'. Two turbolating centralizers at the base of the Ojo Alamo at 2568'. 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 435 sx 50/50 Class "G" Poz with 5% gel, 0.25 pps flocele, 5 pps Gilsonite (626 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.

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. In its place, a long string of 4 1/2" casing will be run and cemented with a minimum of 100' of cement overlap between the 4 1/2" x 7" casing strings. After completion of the well, a 4 1/2" retrievable bridge plug will be set below the top of cement in the 4 1/2" x 7" overlap. The 4 1/2" casing will then be backed off above the top of cement in the 4 1/2" x 7" overlap and laid down. The 4 1/2" bridge plug will then be retrieved and the production tubing will be run to produce the well.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

Special Drilling Operations (Gas/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

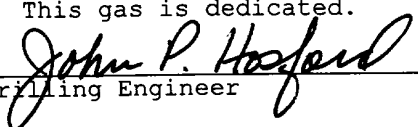
- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- Deduster equipment will be utilized.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Mesaverde and Dakota formations will be completed and commingled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

| | |
|-----------------|----------|
| Fruitland Coal | 300 psi |
| Pictured Cliffs | 600 psi |
| Mesa Verde | 700 psi |
| Dakota | 2500 psi |

- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered.
- The east half of Section 36 is dedicated to the Mesaverde and Dakota in this well.
- This gas is dedicated.


Drilling Engineer

12/5/00
Date