

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2001 FEB 21 PM 1:44

1a. Type of Work DRILL	5. Lease Number SF-080670 Unit Reporting Number DK - 891001954 MV - 891001054A	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator BURLINGTON RESOURCES Oil & Gas Company	7. Unit Agreement Name San Juan 27-4 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 27-4 Unit Well Number 30M	
4. Location of Well 1355' FNL, 1890' FWL Latitude 36° 32.0, Longitude 107° 16.6	10. Field, Pool, Wildcat Blanco MV/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) F Sec. 32, T-27-N, R-4-W API # 30-039-26679	
14. Distance in Miles from Nearest Town 18 miles from Gobernador	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1355'	17. Acres Assigned to Well 320 W/2	
16. Acres in Lease	20. Rotary or Cable Tools Rotary	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 75'	22. Approx. Date Work will Start 11-20-00	
19. Proposed Depth 8081'	23. Proposed Casing and Cementing Program See Operations Plan attached	
21. Elevations (DF, FT, GR, Etc.) 6829' GR	24. Authorized by: <u>[Signature]</u> Regulatory/Compliance Supervisor	

PERMIT NO. _____

APPROVAL DATE 7/1/01

APPROVED BY /s/ Lee Ottari

TITLE _____

DATE JUL - 2

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.

NMOCD

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

¹ API Number 30-039- 26679		² Pool Code 71319/71599	³ Pool Name Blanco Mesaverde/Basin Dakota
⁴ Property Code 7452	⁵ Property Name SAN JUAN 27-4 UNIT		⁶ Well Number 30M
⁷ OGRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		⁹ Elevation 6829'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
F	32	27N	4W		1355	NORTH	1890	WEST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres MV-W/320 DK-W/320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

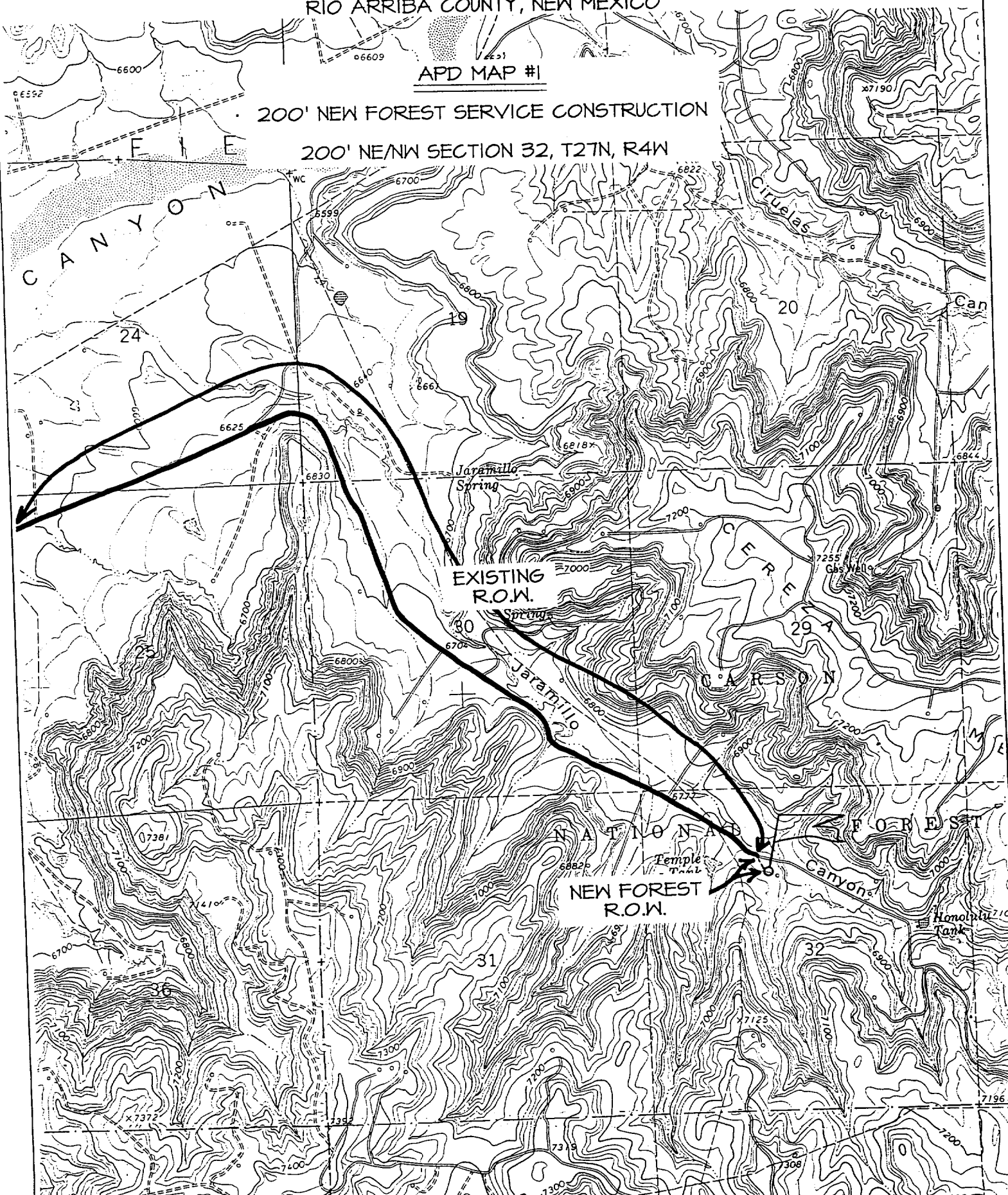
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div><p>¹⁶</p><p>5266.80'</p><p>1355'</p><p>1890'</p><p>LAT: 36°32.0'N LONG: 107°16.6'W</p><p>USA SF-080670</p><p>32</p><p>5280.00'</p></div>	<div><p>¹⁷ OPERATOR CERTIFICATION</p><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></p><p>Signature</p><p>Peggy Cole</p><p>Printed Name</p><p>Regulatory Supervisor</p><p>Title</p><p>11-20-00</p><p>Date</p></div>
	<div><p>¹⁸ SURVEYOR CERTIFICATION</p><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</p><p>Date of Survey</p><p><i>Neale C. Edwards</i></p><p>Signature and Seal of Surveyor</p><p>NEALE C. EDWARDS</p><p>NEW MEXICO</p><p>6857</p></div>

1355' FNL & 1890' FWL, SECTION 32, T27N, R4W, N.M.P.M.
RIO ARRIBA COUNTY, NEW MEXICO

200' NEW FOREST SERVICE CONSTRUCTION

200' NE/NW SECTION 32, T27N, R4W



OPERATIONS PLAN

Well Name: San Juan 27-4 Unit #30M
Location: 1355' FNL, 1890' FWL, Sec 32, T-27-N, R-4-W
Rio Arriba County, NM
Latitude 36° 32.0, Longitude 107° 16.6
Formation: Blanco Mesaverde/Basin Dakota
Elevation: 6829' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	3081'	
Ojo Alamo	3081'	3261'	aquifer
Kirtland	3261'	3341'	gas
Fruitland	3341'	3626'	gas
Pictured Cliffs	3626'	3701'	gas
Lewis	3701'	4136'	gas
Intermediate TD	3801'		
Mesa Verde	4136'	4606'	gas
Chacra	4606'	5326'	gas
Massive Cliff House	5326'	5461'	gas
Menefee	5461'	5801'	gas
Massive Point Lookout	5801'	6291'	gas
Mancos	6291'	6946'	gas
Gallup	6946'	7711'	gas
Greenhorn	7711'	7756'	gas
Graneros	7756'	7815'	gas
Dakota	7815'		gas
TD	8081'		

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- 3801'	LSND	8.4-9.0	30-60	no control
3801- 8081'	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' - 3801'	7"	20.0#	J-55
6 1/4"	3701' - 8081'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 8081' 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/399 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 (1144 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 3241'. First stage: cement with w/132 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps gilsonite, 0.5 pps Flocele. Second stage: 378 sx 50/50 Class "G"/TXI Liteweight with 2.5% sodium metasilicate, 5 pps Gilsonite, 0.5 pps Flocele (1144 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 3261'. Two turbolating centralizers at the base of the Ojo Alamo at 3261'. 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 437 sx 50/50 Class "G" Poz with 5% gel, 0.25 pps flocele, 5 pps Gilsonite (629 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 west half of Section 32 is dedicated to the Mesaverde and Dakota in this well.
- This gas is dedicated.

John P. Hozfand
Drilling Engineer

11/27/00
Date