

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2004 FEB 26 PM 3:04

1a. Type of Work DRILL	5. Lease Number NMNM-03862 Unit Reporting Number Farmington, NM
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator <b>BURLINGTON</b> RESOURCES OIL & GAS COMPANY LP	7. Unit Agreement Name San Juan 28-4 Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 28-4 Unit 9. Well Number 26A
4. Location of Well 1750' FSL, 530' FEL Latitude 36° 39.54 Longitude 107° 17.04	10. Field, Pool, Wildcat Blanco Mesaverde 11. Sec., Twn, Rge, Mer. (NMPM) I Sec. 18, T-28-N, R-4-W API # 30-039-27636
14. Distance in Miles from Nearest Town 12 miles from Gobernador	12. County Rio Arriba 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 530'	17. Acres Assigned to Well 320 S/2 319.56
16. Acres in Lease	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 2100'	
19. Proposed Depth 6944'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 7422' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Nancy Oltmanns</u> Senior Staff Specialist	<u>2-24-04</u> Date

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

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.

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.3  
and appeal pursuant to 43 CFR 3165.4

NMOCD

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

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- <b>27636</b>		*Pool Code 72319	*Pool Name Blanco Mesaverde
*Property Code 7459	*Property Name SAN JUAN 28-4 UNIT		*Well Number 26A
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP		*Elevation 7422'

<sup>10</sup> Surface Location

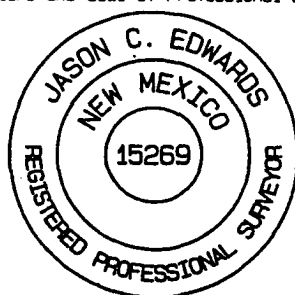
UL or lot no. I	Section 18	Township 28N	Range 4W	Lot Idn	Feet from the 1750	North/South line SOUTH	Feet from the 530	East/West line EAST	County RIO ARriba
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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<sup>12</sup> Dedicated Acres MV - S/320 <b>319.56</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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

<sup>16</sup> 1310.76'  LOT 1	1320.00'	2640.00'	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  <i>Nancy Oltmanns</i> Signature Nancy Oltmanns Printed Name Senior Staff Specialist Title 2/24/04 Date
LOT 2			
LOT 3			
LOT 4			
5280.00'	18		<sup>18</sup> SURVEYOR CERTIFICATION 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. Date of Survey: MAY 27, 2003 Signature and Seal of Professional Surveyor   <b>JASON C. EDWARDS</b> Certificate Number 15269
1313.40'	1320.00'	2640.00'	

Reissued to show well as Mesaverde only

LAT: 36°39.5398' N  
LONG: 107°17.0370' W

2110' 530' 840' 1750'

USA NM-03862

Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction

## OPERATIONS PLAN

**Well Name:** San Juan 28-4 Unit #26A  
**Location:** 1750' FSL, 530' FEL, Section 18, T-28-N, R-4-W  
Rio Arriba County, New Mexico  
Latitude 36° 39.54, Longitude 107° 17.04  
**Formation:** Blanco Mesa Verde  
**Elevation:** 7422' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	3694'	
Ojo Alamo	3694'	3899'	aquifer
Kirtland	3899'	4159'	gas
Fruitland	4159'	4394'	
Pictured Cliffs	4394'	4514'	gas
Lewis	4514'	5024'	gas
<b>Intermediate TD</b>	<b>4764'</b>		
Huerfano Bentonite	5024'	5364'	gas
Chacra	5364'	6224'	gas
Cliff House	6224'	6244'	
Menefee	6244'	6544'	gas
Point Lookout	6544'		gas
<b>TD</b>	<b>6944'</b>		

### Logging Program:

Mud Logs/Coring/DST -  
Mud logs - none  
Coring - none  
DST - none  
Open hole - none  
Cased hole - Gamma Ray, CCL, CBL - surface to TD

### Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud MUD/Air/Air Mist	8.4-9.0	40-50	no control
200- 4764'	LSND	8.4-9.0	30-60	no control
4764- 6944'	Air/Air Mist/Nitrogen	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#	H-40
8 3/4"	0' - 4000'	7"	20.0#	J-55
8 3/4"	4000' - 4764'	7"	23.0#	L-80
6 1/4"	4664' - 6944'	4 1/2"	10.5#	J-55

**Tubing Program:** 0' - 6944' 2 3/8" 4.7# J-55

### BOP Specifications, Wellhead and Tests:

#### Surface to Intermediate TD -

11" 2000 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" 2000 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, 2000 psi minimum choke manifold (Reference Figure #3).

**Completion Operations -**

7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). 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 2000 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 drill crew.
- All BOP tests & 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 conventionally drilled -

Cement with 147 sacks Type III cement with 0.25 pps Celloflake, 3% calcium chloride. (188 cu.ft. 200% excess, bring cement to surface). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60 degrees F. prior to nipple up of BOPE. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

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

7" intermediate casing -

Lead with 441 sacks Premium Lite cement with 3% calcium chloride, 0.25 pps Celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. Tail w/90 sacks Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss (1064 cu.ft., 50% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar set 300' above the top of the Fruitland. First stage: Lead with 38 sacks Premium Lite cmt w/3% calcium chloride, 0.25 pps Celloflake, 0.4% fluid loss, 5 pps LCM-1, 0.4% sodium metasilicate. Tail with 90 sacks with Type III cement with 1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss. Second stage: 404 sacks with Premium Lite cement with 3% calcium chloride, 0.25 pps Celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (1064 cu. ft.-50% 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 @ 3899'. Two turbolating centralizers at the base of the Ojo Alamo 3899'. 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. Cement with 164 sacks Premium Lite HS w/ 0.25 pps Celloflake, 0.3% CD-32, 6.25 pps LCM-1 and 1% FL-52. (325 cu.ft., 40% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

Cement float collar stacked on top of float shoe.

Cement float collar stacked on top of float shoe.

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

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

- 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 (Air/Mist Drilling):**

The following equipment will be operational while air/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.
- 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 Mesa Verde formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

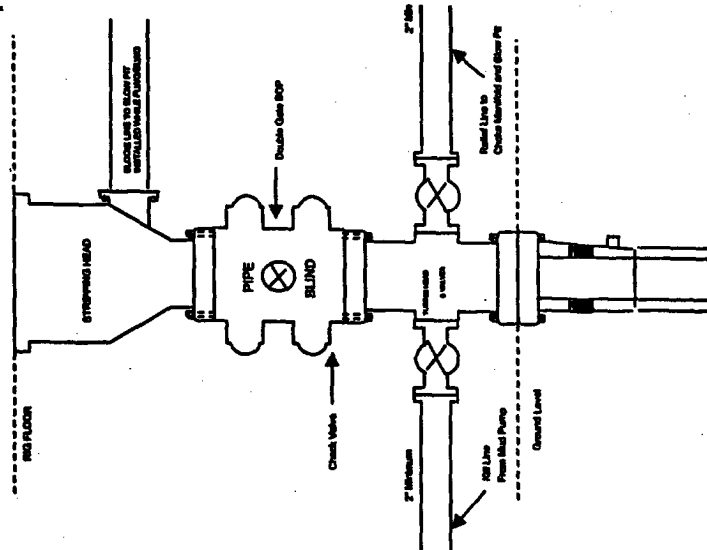
Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The south half of Section 18 is dedicated to the Mesa Verde.
- This gas is dedicated.

Sean Corrigan  
Drilling Engineer

February 25, 2004  
Date

# BURLINGTON RESOURCES

Completion/Workover Rig  
BOP Configuration  
2,000 psi System

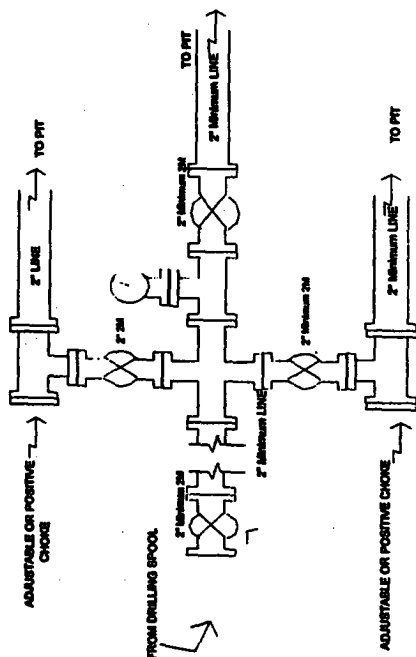


Minimum BOP Installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi stripping head.

Figure #2

# BURLINGTON RESOURCES

Drilling Rig  
Choke Manifold Configuration  
2000 psi System

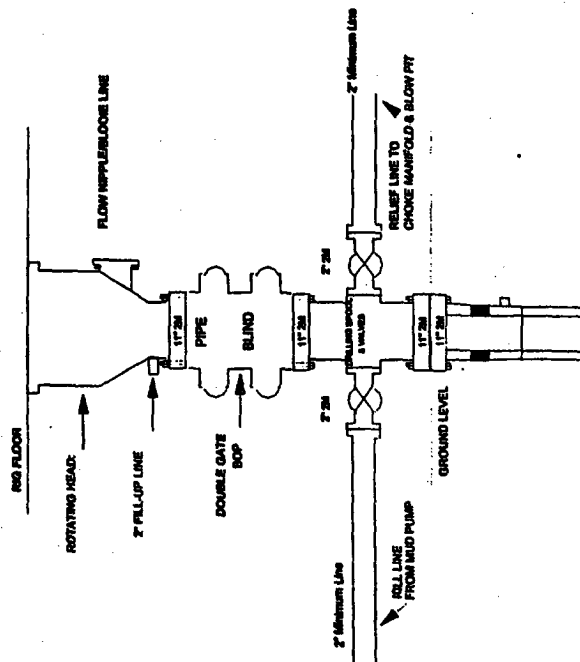


Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

# Burlington Resources

Drilling Rig  
2000 psi System



BOP Installation from Surface Casing Point to Total Depth. 11" Bore 10" Nominal, 2000 psi working pressure double gate BOP to be equipped with blind rams and pipe rams. A 500 psi rotating head on top of ram preventers. All BOP equipment is 2,000 psi working pressure

Figure #1