

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 NM-013657 Unit Reporting Number
1b. Type of Well GAS	6. If Indian, All. or Tribe This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and Appeal Agreement Name
2. Operator <b>BURLINGTON RESOURCES</b> Oil & Gas Company	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 114M
4. Location of Well 1975' FSL, 1975' FEL Latitude 36° 37.8, Longitude 107° 24.8	10. Field, Pool, Wildcat Blanco MV/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 25, T-28-N, R-6-W API # 30-039- 26649
14. Distance in Miles from Nearest Town 8 miles from Gobernador	12. County Rio Arriba
15. Distance from Proposed Location to Nearest Property or Lease Line 1975'	13. State NM
16. Acres in Lease	17. Acres Assigned to Well 320 E/2
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 1600'	
19. Proposed Depth 7862'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6605' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Reggie Cole</u> Regulatory/Compliance Supervisor	<u>12-18-00</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.

NMOC

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

District II  
PO Drawer 00, 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 30-039-26649		*Pool Code 72319/71599	*Pool Name Blanco Mesaverde/ Basin Dakota
*Property Code 7462	*Property Name SAN JUAN 28-6 UNIT		*Well Number 114M
*GRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		*Elevation 6605'



#### 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
J	25	28N	6W		1975	SOUTH	1975	EAST	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 MV-E/320 DK-E/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>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</p> <p>Peggy Cole Printed Name</p> <p>Regulatory Supervisor Title</p> <p>12-18-00 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>NOVEMBER 7, 2000 Date of Survey</p> <p><i>Neale C. Edwards</i> Signature and Seal of Professional Surveyor</p> <p> Certificate Number 6857</p>

## OPERATIONS PLAN

**Well Name:** San Juan 28-6 Unit #114M  
**Location:** 1975'FSL, 1975'FEL, Sec 25, T-28-N, R-6-W  
Rio Arriba County, NM  
Latitude 36° 37.8, Longitude 107° 24.8  
**Formation:** Blanco Mesaverde/Basin Dakota  
**Elevation:** 6605' GL

<b><u>Formation</u></b>	<b><u>Tops:</u></b>	<b><u>Top</u></b>	<b><u>Bottom</u></b>	<b><u>Contents</u></b>
Surface		San Jose	2707'	
Ojo Alamo		2707'	2837'	aquifer
Kirtland		2837'	3042'	gas
Fruitland		3042'	3417'	gas
Pictured Cliffs		3417'	3517'	gas
Lewis		3517'	4012'	gas
<b>Intermediate TD</b>		<b>3617'</b>		
Mesa Verde		4012'	4377'	gas
Chacra		4377'	5147'	gas
Massive Cliff House		5147'	5242'	gas
Menefee		5242'	5577'	gas
Massive Point Lookout		5577'	6097'	gas
Mancos		6097'	6777'	gas
Gallup		6777'	7532'	gas
Greenhorn		7532'	7582'	gas
Graneros		7582'	7627'	gas
Dakota		7627'		gas
<b>TD</b>		<b>7862'</b>		

### **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- 3617'	LSND	8.4-9.0	30-60	no control
3617- 7862'	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' - 3617'	7"	20.0#	J-55
6 1/4"	3517' - 7862'	4 1/2"	10.5#	K-55

### **Tubing Program:**

0' - 7763'      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/377 sx 50/50 Class "G" TXI Liteweight cement with 2.5% sodium metasilicate, 2% calcium chloride, 10 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 (1088 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 2942'. First stage: cement with w/159 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps gilsonite, 0.5 pps Flocele. Second stage: 343 sx 50/50 Class "G"/TXI Liteweight with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (1088 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 2837'. Two turbolating centralizers at the base of the Ojo Alamo at 2837'. 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 434 sx 50/50 Class "G" Poz with 5% gel, 0.25 pps flocele, 5 pps Gilsonite (624 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.

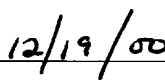
**Additional Information:**

- 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 25 is dedicated to the Mesaverde and Dakota in this well.
- This gas is dedicated.

  
Drilling Engineer

  
Date

BURLINGTON RESOURCES OIL & GAS COMPANY SAN JUAN 28-6 UNIT #114M

1975' FSL & 1975' FEL, SECTION 25, T28N, R6W, N.M.P.M.  
RIO ARriba COUNTY, NEW MEXICO

APD MAP #1

1400' NEW BLM CONSTRUCTION

900' NE/SW SECTION 25, T28N, R6W  
500' NW/SE SECTION 25, T28N, R6W

