

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

APR 19 - 6 AM 11:24

1a. Type of Work DRILL	5. Lease Number SF-0789190 78985 Farmington, NM Unit Reporting Number
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator <b>BURLINGTON</b> RESOURCES Oil & Gas Company	7. Unit Agreement Name San Juan 29-7 Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 29-7 Unit 9. Well Number #82B
4. Location of Well 835' FNL, 140' FEL Latitude 36° 45.5761'N, Longitude 107° 34.0315'W	10. Field, Pool, Wildcat Blanco Mesaverde/Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) A Sec. 4, T29N, R07W API # 30-039- 27697
14. Distance in Miles from Nearest Town 29.95 miles to Intersection Hwy 64 & Hwy 550 in Bloomfield, NM	12. County Rio Arriba 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 140'	
16. Acres in Lease	17. Acres Assigned to Well 317.38 E/2 MV 317.38 E/2 DK
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 820'	
19. Proposed Depth 7567'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6223' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Joni Clark</u> Regulatory Specialist	<u>3/8/04</u> Date

PERMIT NO. David J. Markiewicz APPROVAL DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE APR 22 2004

Archaeological Report attached

Threatened and Endangered Species Report attached

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.

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

NMOCD

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

DISTRICT II  
611 South First, Artesia, N.M. 88210

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT III  
1000 Rio Brazos Rd., Artesia, N.M. 87410

## OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-27697	*Pool Code 71599/72319	*Pool Name Basin Dakota/Blanco Mesaverde
*Property Code 7465	*Property Name SAN JUAN 29-7 UNIT	*Well Number 82B
*GRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP	*Elevation 6223'

## 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
A	4	29-N	7-W		835'	NORTH	140'	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
Dedicated Acres MV E/317.38 DK E/317.38									

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

<p>16</p> <p>LOT 8</p> <p>LOT 7</p>	<p>APR 2004</p>	<p>LOT 6</p> <p>LOT 5</p> <p>LAT: 36°45.5781' N LONG: 107°34.0315' W MAD 1927</p> <p>USA SF-078945</p> <p>835'</p> <p>140'</p> <p>S 00-08-00 W 2801.08'</p>	<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>Joni Clark</i></p> <p>Signature Joni Clark</p> <p>Printed Name Regulatory Specialist</p> <p>Title 3-8-04</p> <p>Date</p>
<p>LOT 8</p> <p>LOT 7</p>	<p>APR 2004</p>	<p>USA SF-078919 (NYE, C H, ETUX)</p>	<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>Date of Survey 10/27/03</p> <p>Signature and Seal <i>Glen W. H. 03</i></p> <p>15703</p> <p>15703</p> <p>Certificate Number 15703</p>

RECEIVED

# OPERATIONS PLAN

**Well Name:** San Juan 29-7 Unit #82B  
**Location:** 835' FNL, 140' FEL, Section 4, T-29-N, R-7-W  
Rio Arriba County, New Mexico  
Latitude 36° 45.58'N, Longitude 107° 34.03'W  
**Formation:** Blanco Mesa Verde/Basin Dakota  
**Elevation:** 6223' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	2075'	
Ojo Alamo	2075'	2265'	aquifer
Kirtland	2265'	2850'	gas
Fruitland	2850'	3087'	
Pictured Cliffs	3087'	3225'	gas
Lewis	3225'	3820'	gas
<b>Intermediate TD</b>	<b>3325'</b>		
Huerfanito Bentonite	3820'	4105'	gas
Chacra	4105'	4615'	gas
UpperCliff House	4615'	4825'	
Massive Cliff House	4825'	4915'	
Menefee	4915'	5255'	gas
Point Lookout	5255'	5600'	gas
Mancos	5600'	6542'	gas
Gallup	6542'	7265'	gas
Greenhorn	7265'	7318'	gas
Graneros	7318'	7385'	gas
Dakota	7385'	7475'	gas
Upper Cubero	7475'	7503'	
Lower Cubero	7503'	7557'	
Oak Canyon	7557'		
<b>TD</b>	<b>7567'</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- 120'	Spud MUD/Air/Air Mist	8.4-9.0	40-50	no control
120- 3325'	LSND	8.4-9.0	30-60	no control
3225- 7567'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

## 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' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3325'	7"	20.0#	J-55
6 1/4"	0' - 7567'	4 1/2"	10.5#	J-55

**Tubing Program:** 0' - 7567' 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 4 1/2" 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 -**

Pre-Set Drilled Cement with 23 sx Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (37 cu ft of slurry, bring cement to surface) Wait on cement for 24 hours for pre-set holes before pressure testing or drilling out from under surface.

**9 5/8" surface casing conventionally drilled -**

Cement with 88 sacks Type III cement with 0.25 pps Celloflake, 3% calcium chloride. (113 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 291 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 (744 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 w/24 sxs Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% sodium metascilicate, 0.4% fluid loss. Tail w/90 Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss. Second stage: Cmt w/267 sxs Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (744 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 @ 2265'. Two turbolating centralizers at the base of the Ojo Alamo 2265'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

#### 4 1/2" Production Casing -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Cement with 291 sacks Premium Lite HS w/ 0.25 pps Celloflake, 0.3% CD-32, 6.25 pps LCM-1 and 1% FL-52. (577 cu. ft.-30% 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.

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

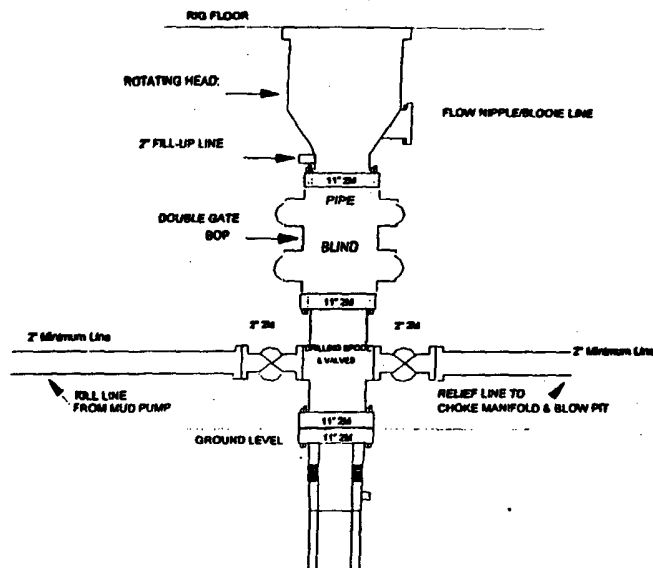
Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
Dakota	2500 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The east half of Section 4 is dedicated to the Mesa Verde and Dakota.
- This gas is dedicated.

Sean Corrigan  
Drilling Engineer

April 6, 2007  
Date

## Burlington Resources

### Drilling Rig 2000 psi System



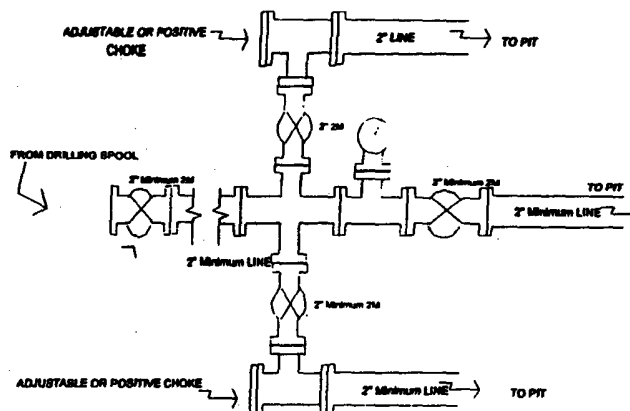
BOP Installation from Surface Casing Point to Total Depth. 11\"/>

Figure #1

4-20-01

## BURLINGTON RESOURCES

### Drilling Rig Choke Manifold Configuration 2000 psi System

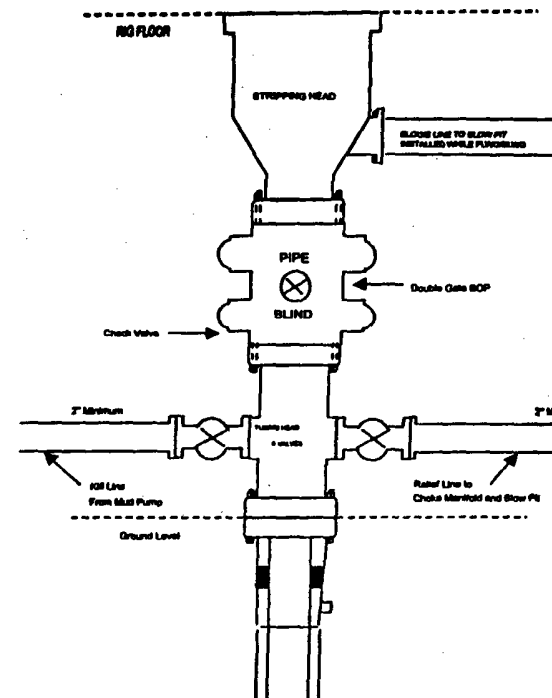


Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

## BURLINGTON RESOURCES

### Completion/Workover Rig BOP Configuration 20,000 psi System

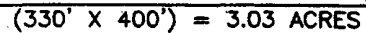


Minimum BOP installation for all Completion/Workover Operations. 7-1/16\"/>

Figure #2

4-20-01


BURLINGTON RESOURCES OIL & GAS COMPANY LP  
SÁN JUAN 29-7 UNIT #82B, 835' FNL & 140' FEL  
SECTION 4, T-29-N, R-7-W, NMPM, RIO ARRIBA COUNTY, NM  
GROUND ELEVATION: 6223', DATE: OCTOBER 28, 2003



RESERVE PIT DIKE: TO BE 8" ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).  
BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.

ELEV. A-A'	C/L
6230	
6220	
6210	

ELEV. B-B'		C/L	
6230			
6220			
6210			

ELEV. C-C'							
6230							
6220							
6210							

NOTE: VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.  
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.