

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RECEIVED

2003 JAN -2 PM 1:10
070 Farmington, NM

1a. Type of Work
DRILL

5. Lease Number
NMSF-079492A
Unit Reporting Number
MV-891000950A
DK-891000950

6. If Indian, All. or Tribe

1b. Type of Well
GAS

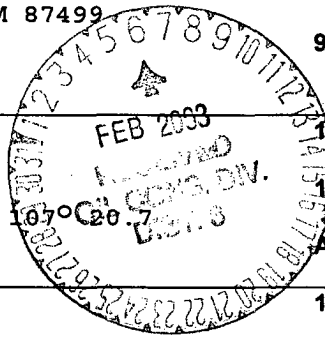
2. Operator
**BURLINGTON
RESOURCES** Oil & Gas Company

7. Unit Agreement Name
San Juan 27-5 Unit

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499
(505) 326-9700

8. Farm or Lease Name
San Juan 27-5 Unit
9. Well Number
96N

4. Location of Well
2625' FNL, 2555' FEL
Latitude 36° 34.4, Longitude 107° 20.7



10. Field, Pool, Wildcat
Blanco MV/Basin DK
11. Sec., Twn, Rge, Mer. (NMPM)
6 Sec. 15, T-27-N, R-5-W
API # 30-039-27275

14. Distance in Miles from Nearest Town
41.8 miles from Blanco

12. County
Rio Arriba
13. State
NM

15. Distance from Proposed Location to Nearest Property or Lease Line
2555'

16. Acres in Lease

17. Acres Assigned to Well
MV - 320 E/2
DK - 320 N/2

18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease
1839'

19. Proposed Depth
7948'

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6691' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Peggy Case
Regulatory/Compliance Supervisor

12-12-01
Date

PERMIT NO.

APPROVAL DATE

APPROVED BY /s/ Jim Lovato

TITLE

DATE 2-4-03

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 3165.8 and appeal pursuant to 43 CFR 3165.4

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

NMOC

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

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

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-27275	*Pool Code 72319/71599	*Pool Name Blanco Mesaverde/Basin Dakota
*Property Code 7454	*Property Name SAN JUAN 27-5 UNIT	*Well Number 96N
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS, INC.	*Elevation 6691'

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
G	15	27-N	5-W		2625	NORTH	2555	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/320 DK-N/320					Joint or Infill		Consolidation Code		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

FD 3 1/4" BLM BC. 1957	S 89-37-05 W 2675.89' (M)	FD 3 1/4" BLM BC. 1957
USA SF-079492-A	USA SF-079492-A	
LAT. 36°34.4' N LONG. 107°20.7' W.	FEB 2003	
82'	1217'	2555'
15	55'	FD 3 1/4" BLM BC. 1957
USA SF-079403	CANDELARIA, P.	

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein
is true and complete to the best of my knowledge and
belief.

Signature
Peggy Cole

Printed Name
Regulatory Supervisor

Title

Date
12-12-02

18 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
11-21-02
Signature and Seal of Registered Professional Land Surveyor
ROY A. RUSH
8894
Certificate Number

OPERATIONS PLAN

Well Name: San Juan 27-5 Unit #96N
2625' FNL, 2555' FEL, Section 15, T-27-N, R-5-W
Rio Arriba County, New Mexico
Latitude 36° 34.4, Longitude 107° 20.7
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 6691' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	2863'	
Ojo Alamo	2863'	3023'	aquifer
Kirtland	3023'	3363'	gas
Fruitland	3363'	3513'	
Pictured Cliffs	3513'	3603'	gas
Lewis	3603'	4033'	gas
Intermediate TD	3703'		
Huerfanito Bentonite	4033'	4463'	gas
Chacra	4463'	5249'	gas
Cliff House	5249'	5319'	
Menefee	5319'	5683'	gas
Point Lookout	5683'	6168'	gas
Mancos	6168'	6838'	gas
Gallup	6838'	7618'	gas
Greenhorn	7618'	7678'	gas
Graneros	7678'	7703'	gas
Dakota	7703'		gas
TD	7948'		

Logging Program:

Mud logs - none
Cased hole - CBL-CCL-GR - TD to surface
Open hole - none
Cores - none

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 120'	Spud	8.4-9.0	40-50	no control
120- 3703'	LSND	8.4-9.0	30-60	no control
3703- 7948'	Air/N2	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' - 120'	9 5/8"	32.3#	WC-50
8 3/4"	0' - 3703'	7"	20.0#	J-55
6 1/4"	3603' - 7948'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 7948'

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 80 sx Type III cement with 0.25 pps Celloflake and 2% calcium chloride (113 cu.ft. of slurry, 200% excess to circulate to surface). WOC 24 hours for pre-set holes or 8 hours for conventionally set holes before pressure testing or drilling out from under surface casing. 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/334 sx Premium Lite cement with 3% calcium chloride, 0.25 pps Flocele, 5 pps LCM-1, 0.4% fluid loss, 0.4% SMS. Tail w/90 sx Type III cmt w/1% calcium chloride, 0.25 pps Flocele, 0.2% fluid loss (835 cu.ft. of slurry, 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 during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar 3263'. First stage: cement with 47 sx Type III cmt w/1% calcium chloride, 0.25 pps Flocele, 0.2% fluid loss. Second stage: 345 sx Premium Lite cmt with 3% calcium chloride, 0.25 pps Flocele, 5 ps LCM-1, 0.4% fluid loss, 0.4% SMS (835 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 at 3023'. Two turbolating centralizers at the base of the Ojo Alamo at 3023'. 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 315 sx Premium Lite cmt w/0.25 pps Celloflake, 0.3% CD-32, 6.25 pps LCM-1, 1% fluid loss (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 float shoe.

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 15 is dedicated to the Mesaverde and the north half of Section 15 is dedicated to the Dakota in this well.
- This gas is dedicated.


Drilling Engineer

12/31/2002
Date