

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RECEIVED

1a. Type of Work DRILL	5. Lease Number NMSF065557 R Unit Reporting Number 070 Farmington, NM	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>BURLINGTON RESOURCES</b> Oil & Gas Company	7. Unit Agreement Name	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Cornell 9. Well Number 101	
4. Location of Well 1200' FNL, 660' FWL Latitude 36° 44.6698, Longitude 108° 04.4707	10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 11, T-29-N, R-12-W API# 30-045- 31581	
14. Distance in Miles from Nearest Town 7 miles to Int. Hwy 64 & Browning Parkway	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 660'		
16. Acres in Lease	17. Acres Assigned to Well 314.31 W/2	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 1354'		
19. Proposed Depth 1991'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 5694' GR	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>[Signature]</u> Regulatory/Compliance Supervisor	Date	<u>3-12-03</u>

PERMIT NO.

APPROVAL DATE

APPROVED BY /s/ David J. Mankiewicz

TITLE

DATE JUL 15 2003

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

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

NMCCO

DISTRICT I  
1825 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  
811 South First, Artesia, N.M. 86210

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 30-045- <b>31581</b>		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 6928	*Property Name CORNELL		*Well Number 101
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS, INC.		*Elevation 5694'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	11	29-N	12-W		1200'	NORTH	660'	WEST	SAN JUAN

<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
*Dedicated Acres FTC - W/314.31					*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

16 FD 3 1/4" B.L.M. BC 1974 1200' 660' 663' 38'		S 88-59-44 E 2646.90' (M) LOT 3 USA SF065557		FD 3 1/4" B.L.M. BC 1974 LOT 2		LOT 1	
SCOTT, SANDY ET UX HONNOR, EH ET UX		LAT. 36°44.6698' N (NAD 27) LONG. 108°04.4707' W S 00-16-05 E 2475.10' (M) LOT 5		LOT 6		JUL 2003 RECEIVED OIL CONS. DIV. DIST. 3	
FD 3 1/4" B.L.M. BC 1974 HART, ALEX ET AL		VARIOUS FEE		LOT 9		LOT 8	
USA SF065557A		LOT 10		LOT 11		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature: <u>Peggy Cole</u> Printed Name: <u>Peggy Cole</u> Regulatory Supervisor Title: <u>3-25-03</u> Date: <u>3-25-03</u>	
						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: <u>NEW MEXICO</u> Signature and Seal of Professional Surveyor: <u>14827</u> REGISTERED PROFESSIONAL SURVEYOR 14827 Certificate Number	

# OPERATIONS PLAN

Well Name: Cornell #101  
Location: 1200' FNL, 660' FWL Section 11, T-29-N, R-12-W  
San Juan County, NM  
Formation: Basin Fruitland Coal  
Elevation: 5694' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	465'	
Ojo Alamo	465'	608'	aquifer
Kirtland	608'	1435'	
Fruitland	1435'	1770'	gas
B/Basal Coal	1770'	1791'	gas
Pictured Cliffs	1791'	1991'	gas
Total Depth	1991'		

Logging Program: Cased hole: GR/DEN/CAL - TD to surface  
Mudlog: none  
Coring Program: none

## Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud	8.4-9.0	40-50	no control
120-1991'	Non-dispersed	8.4-9.5	30-60	no control

## Casing Program (as listed, the equivalent, or better):

Hole Size	Depth Interval	Csg. Size	Wt.	Grade
8 3/4"	0' - 120'	7"	20.0#	J-55
6 1/4"	0' - 1991'	4 1/2"	10.5#	J-55

## Tubing Program:

0' - 1991'	2 3/8"	4.7#	J-55
------------	--------	------	------

Float Equipment: 7" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - guide shoe and self-fill float collar. Three centralizers run every other joint above shoe. Nine centralizers run every 3<sup>rd</sup> joint to the base of the Ojo Alamo @ 608'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 608'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: 7" x 4 1/2" x 2 3/8" x 11" 2000 psi screw on independent wellhead.

**Cementing:**

7" surface casing - cement with 38 sx Class "B" Type III cement with 0.25 pps Celloflake and 3% calcium chloride (54 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.

4 1/2" production casing - Lead w/86 sx Premium Lite cement w/3% calcium chloride, 1/4 pps Cello-flake, 5 pps LCM-1, 0.4% FL-52, and 0.4% SMS. Tail w/90 sx Type III cement w/1% calcium chloride, 1/4 pps Cello-flake, and 0.2% FL-52 (306 cu.ft. of slurry, 50% excess to circulate to surface.) If cement is not circulated to surface, a temperature survey or CBL will be run during drilling or completion operations to determine TOC.

4-1/2" production casing alternative two stage - Stage collar @ 1335'. First stage: cement with 73 sxs Type III cmt w/1% calcium chloride, 0.25 pps flocele, 0.2% fluid loss. Second stage: 96 sxs Premium Lite cmt w/3% calcium chloride, 0.25 pps Flocele, 5 pps LCM-1, 0.4% fluid loss, 0.4% SMS (306 cu.ft. of slurry, 50% excess to circulate to surface).

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

**BOP and tests:**

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test rams to 600 psi/30 min.

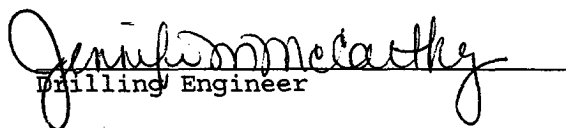
Completion - 7 1/16" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 2000 psi/15 min.

From surface to TD - choke manifold (Reference Figure #3).

Pipe rams will be actuated at least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

**Additional information:**

- \* The Fruitland Coal formation will be completed and commingled.
- \* Anticipated pore pressure for the Fruitland is 570 psi.
- \* This gas is dedicated.
- \* The west half of Section 11 is dedicated to the Fruitland Coal.

  
Drilling Engineer

3/13/03  
Date