

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number NMNM-4456 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
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Cat Draw 9. Well Number 100S
4. Location of Well 825' FNL, 1755' FWL Latitude 36° 59.80, Longitude 107° 21.9	10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) C Sec. 4, T-30-N, R-5-W API # 30-039-27443
14. Distance in Miles from Nearest Town 47 miles from Blanco	12. County Rio Arriba 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 825'	17. Acres Assigned to Well 319.63 W/2
16. Acres in Lease	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 21'	
19. Proposed Depth 3361'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6449' 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>5-13-03</u>

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

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY /s/ David J. Markiewicz TITLE \_\_\_\_\_ DATE AUG - 5 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.

NMOCB

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

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

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

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039- <b>27443</b>	*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 18493	*Property Name CAT DRAW	*Well Number 100S
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS, INC.	*Elevation 6449'

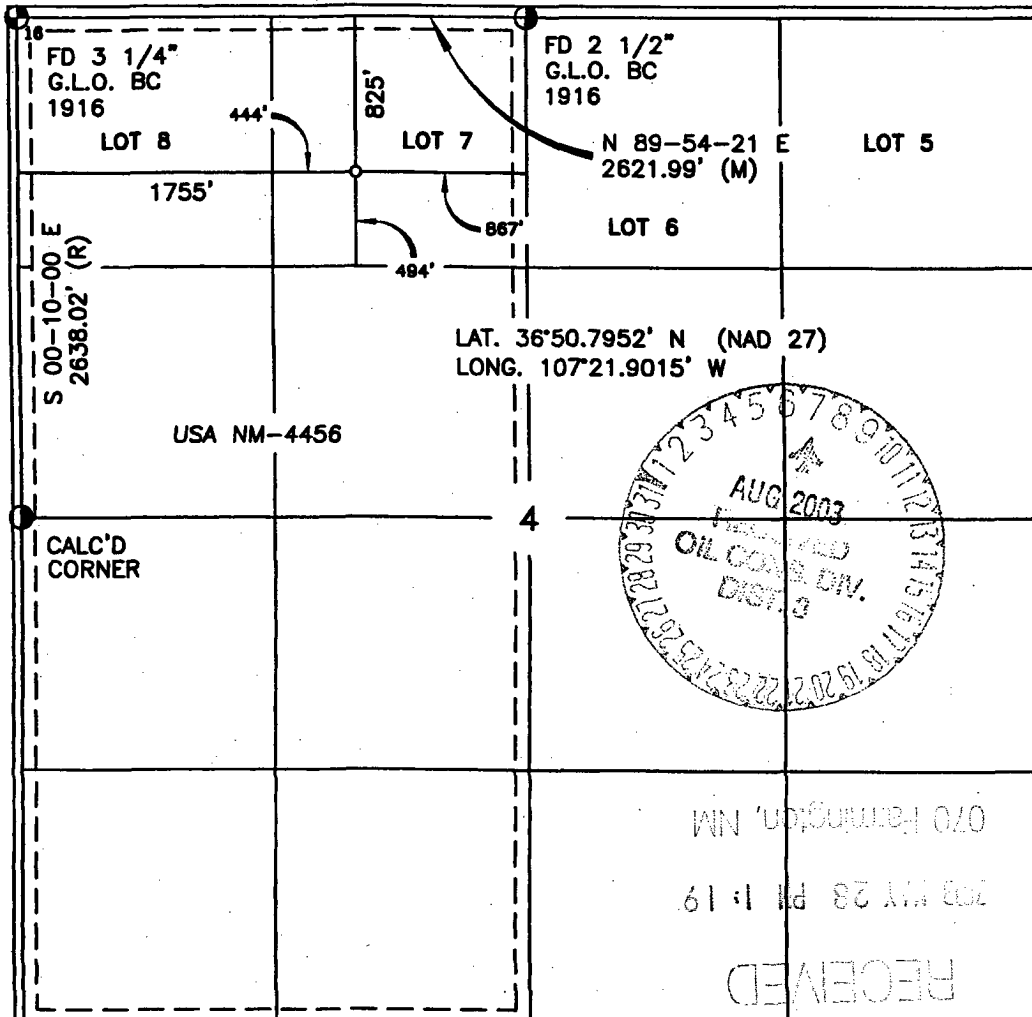
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	4	30-N	5-W		825'	NORTH	1755'	WEST	RIO ARriba

<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/319.63			*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



<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.

Signature Peggy Cole  
Printed Name Peggy Cole  
Regulatory Supervisor Title 5-13-03  
Date

<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 11/05/02  
Signature and Seal of Professional Surveyor: JOHNSON  
Certificate Number 14827

## OPERATIONS PLAN

**Well Name:** Cat Draw #100S  
**Location:** 825' FNL, 1755' FWL, Section 4, T-30-N, R-5-W  
Latitude 36° 50.80, Longitude 107° 21.9  
Rio Arriba County, NM  
**Formation:** Basin Fruitland Coal  
**Elevation:** 6449' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	2493'	
Ojo Alamo	2493'	2682'	aquifer
Kirtland	2682'	2780'	gas
Fruitland	2780'	3118'	gas
Intermediate casing	3068'		
Top of Coal	3118'	3261'	
Base of Coal	3261'		
Pictured Cliffs	3276'		
Total Depth	3361'		

**Logging Program:**

Open hole - none  
Mud log - TD to 3068'

**Coring Program:** none

**Mud Program:**

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud	8.4-9.0	40-50	no control
120-3068'	Non-dispersed	8.4-9.0	30-60	no control
3068-3361'	Air/Mist			no control

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

Hole Size	Depth Interval	Csg. Size	Wt.	Grade
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3068'	7"	20.0#	J-55
6 1/4"	3068' - 3361'	open hole		

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

Hole Size	Depth Interval	Csg. Size	Wt.	Grade
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3068'	7"	20.0#	J-55
6 1/4"	3028' - 3361'	5 1/2"	15.5#	J-55

**Tubing Program:**

0' - 3361'      2 3/8"      4.7#      J-55

**Float Equipment:** 9 5/8" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing - guide shoe and self-fill float collar. Standard centralizers run every other joint above shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2682'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

**Wellhead Equipment:** 9 5/8" x 7" x 2 3/8" x 11" 3000 psi xmas tree assembly.

**Cementing:**

9 5/8" surface casing - cement with 53 sx Class A, B Portland Type I, II cement (80 cu.ft. of slurry, bring cement to surface) or equivalent. Wait on cement for 24 hours for pre-set holes or 8 hrs for conventionally set holes before pressure testing or drilling out from under surface. Test BOP and casing to 600 psi for 30 minutes.

7" intermediate casing - lead w/266 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 with 90 sacks Type III cement with 1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss (691 cu.ft., 50% excess to circulate to surface).

5 1/2" liner - will not be cemented if run.

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

**BOP and tests:**

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

Intermediate TD to Total Depth - 7 1/6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to drilling out intermediate casing, test BOP and casing to 1500 psi for 30 minutes; all pipe rams and casing to 1500 psi for 30 minutes each.

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.
- Anticipated pore pressure for the Fruitland is 500 psi.
- This gas is dedicated.
- The west half of Section 4 is dedicated to this well.

Drilling Engineer: Jim McCarthy Date: 5/28/03