

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RECEIVED

2003 JAN -8 PM 1:17
070 Farmington, NM

1a. Type of Work
DRILL

5. Lease Number
NMNM33056
Unit Reporting Number

1b. Type of Well
GAS

6. If Indian, All. or Tribe

2. Operator
BURLINGTON RESOURCES 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
Rattlesnake Canyon

9. Well Number
105S

4. Location of Well
1450' FSL, 1135' FEL
Latitude 36° 57.9882, Longitude 107° 41.5574

10. Field, Pool, Wildcat
Basin Fruitland Coal

11. Sec, Twn, Rge, Mer. (NMPM)
I Sec. 20, T-32-N, R-8-W
API # 30-045- 31324

14. Distance in Miles from Nearest Town
36.3 miles to Blanco Post Office

12. County
San Juan

13. State
NM

15. Distance from Proposed Location to Nearest Property or Lease Line
1135'

16. Acres in Lease

17. Acres Assigned to Well
320 ED

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease
20'

19. Proposed Depth
3314'

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6374' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: David J. Mankiewicz
Regulatory/Compliance Supervisor Date 1-2-03

PERMIT NO.

APPROVAL DATE

APPROVED BY

David J. Mankiewicz

TITLE

DATE

APR 25 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

NMOC

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

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

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

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, NM 87504-2088

JAN -8 PM 1:17

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 18605	⁵ Property Name RATTLESNAKE CANYON	⁶ Well Number 105S
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS INC.	⁹ Elevation 6374

¹⁰ Surface Location

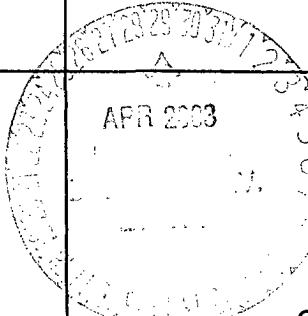
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	20	32-N	8-W		1450	SOUTH	1135	EAST	SAN JUAN

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 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

16

		USA SF - 079013	
		USA NM - 33056	
20		FD 3 1/4" BLM 1962 B.C.	
LAT: 36°57.9882' N. (NAD 27) LONG: 107°41.5574' W. (NAD 27)		USA NM - 33056	
		1189'	
		164'	
		1135'	
		141'	
		1450'	
		N 88°43'45" W 2598.73' (M)	
FD 3 1/4" BLM 1962 B.C.		USA SF - 079013	
		USA NM - 33056	
		FD 3 1/4" BLM 1962 B.C.	

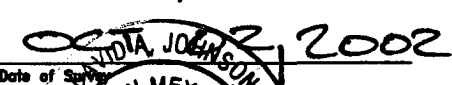
¹⁷ OPERATOR CERTIFICATION

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
1-2-03
Date

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
NEW MEXICO
Signature and Seal of Professional Surveyor
14827
REGISTERED PROFESSIONAL SURVEYOR
Certificate Number

OPERATIONS PLAN

Well Name: Rattlesnake Canyon #105S
Location: 1450' FSL, 1135' FEL Section 20, T-32-N, R-8-W
Latitude 36° 57.9882'N, Longitude 107° 41.5574'W
San Juan County, NM
Formation: Basin Fruitland Coal
Elevation: 6374' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	2554'	
Ojo Alamo	2554'	2741'	aquifer
Kirtland	2741'	2898'	
Fruitland	2898'	2986'	
Intermediate TD	3087'		
Fruitland Coal	2986'	3314'	gas
B/Basal Coal	3314'	3323'	gas
Total Depth	3314'		
Pictured Cliffs	3323'		

Logging Program: none
Coring Program: none

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud	8.4-9.0	40-50	no control
120-3087'	Non-dispersed	8.4-9.0	30-60	no control
3087-3314'	Air/Mist			

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' - 3087'	7"	20.0#	J-55
6 1/4"	3087' - 3314'	open hole		

Tubing Program:

0' - 3314'	2 3/8"	4.7#	J-55
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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 @ 2741'. 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" 2000 psi xmas tree assembly.

Cementing:

9 5/8" surface casing - cement with 32 sx Class A, B Portland Type I, II cement (38 cu.ft. of slurry, bring cement to surface through 3/4" line) or equivalent. WOC 24 hours for pre-set holes or 8 hours for conventionally set holes before pressure testing or drilling out from under surface casing.

7" intermediate casing - lead w/375 sacks Premium Lite with 3% calcium chloride, 5 pps LCM-1, and 1/4#/sack flocele, 0.4% FL-52, & 0.4% SMS. Tail with 90 sacks Type III cmt with 1% calcium chloride, 1/4#/sack flocele and 0.2% FL-52 (922 cu.ft., 100% 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 intermediate TD - 11" 2000 psi (minimum) double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test rams to 600#/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 blind rams 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 less than 500 psi.
- * This gas is dedicated.
- * The east half of section 20 is dedicated to the Fruitland Coal.

Date: 1/8/03

Drilling Engineer: Eric J. Giles