

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 SF078439 Unit Reporting Number 070 Farmington, NM
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 Johnston Federal 9. Well Number 23S
4. Location of Well 1840' FNL, 790' FEL Latitude 36° 51.4040'N, Longitude 107° 44' 56.027'W	10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) Sec 35, T-31-N, R-9-W API # 30-045-32082
14. Distance in Miles from Nearest Town 21 Miles to Int of Hwy 550 & Hwy 173 in Aztec NM	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 790'	17. Acres Assigned to Well 315.92 E/2
16. Acres in Lease	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 20'	
19. Proposed Depth 2879'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 5979 GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Frances Bond</u> Regulatory/Compliance Assistant	<u>10-22-03</u> Date

PERMIT NO.

APPROVAL DATE

APPROVED BY David J. Mankiewicz

TITLE

DATE

JAN 16 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
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

OIL CONSERVATION DIVISION

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

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

☐ 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 7208	⁵ Property Name JOHNSTON FEDERAL	⁶ Well Number 23S
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS INC.	⁹ Elevation 5979

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
H	35	31-N	9-W		1840	NORTH	790	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/315.92					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

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LOT 4	FD 3 1/4" BLM 1966 BC	LOT 3	LOT 2	FD 3 1/4" BLM 1966 B.C.	LOT 1
LOT 5	LAT: 36°51.4040'N. (NAD 27) LONG: 107°44.6027' W. (NAD 27)	LOT 6	LOT 7	LOT 8	
LOT 12	35	LOT 11	USA SF - 078439	LOT 9	
LOT 13		LOT 14	LOT 15	LOT 16	

17 OPERATOR CERTIFICATION

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

Frances Bond
Signature
Frances Bond
Printed Name
Regulatory Assistant
Title
10-22-03
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.

DAVID R. JOHNSON
Date of Survey
NEW MEXICO
Signature and Seal of Professional Surveyor
14827
REGISTERED PROFESSIONAL SURVEYOR
Certificate Number

OPERATIONS PLAN

Well Name: Johnston Federal 23S
Location: 1840' FNL, 790' FEL Section 35, T-31-N, R-9-W
Latitude 36° 51.4040'N, Longitude 107° 44.6027'W
San Juan County, NM
Formation: Basin Fruitland Coal
Elevation: 5979' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	1511'	
Ojo Alamo	1511'	1645'	aquifer
Kirtland	1645'	2263'	
Fruitland	2263'	2620'	
Intermediate TD	2590'		
Fruitland Coal	2620'	2794'	gas
B/Basal Coal	2794'	2795'	gas
Pictured Cliffs	2795'		
Total Depth	2879'		

Logging Program: none
Mudlog: from 7" to 2879
Coring Program: none

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud Mud/Air/Air Mist	8.4-9.0	40-50	no control
120-2590'	Non-dispersed	8.4-9.0	30-60	no control
2590-2879'	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' - 2590'	7"	20.0#	J-55
6 1/4"	2590' - 2879'	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' - 2590'	7"	20.0#	J-55
6 1/4"	2550' - 2879'	5 1/2"	15.5#	J-55

Tubing Program:

0' - 2879'	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 @ 1645'. 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 -**

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.

Conventionally Drilled

Cement with 80 sx Type III cement with 0.25 pps Celloflake, 2% CaCl. (113 cu ft of slurry, 200% excess, bring cement to surface) Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

~~Waive the 6 hours WOC in lieu of 4 hours prior to NU of BOPE.~~

See General Requirements

7" intermediate casing - lead w/215 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 (584 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 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 35 is dedicated to the Fruitland Coal.

Date: 12-15-03

Drilling Engineer: Jim McCarthy