

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number NMSF-078212
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 Rourke
4. Location of Well Unit M (SWSW), 1085' FSL & 1035' FWL,  Latitude 36° 50.2835'N Longitude 108° 12.8993'W	9. Well Number #100
	10. Field, Pool, Wildcat Basin Fruitland Coal
	11. Sec., Twn, Rge, Mer. (NMPM) Sec. 4, T30N, R13W  API # 30-045-33993
14. Distance in Miles from Nearest Town	12. County San Juan
	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1035'	
16. Acres in Lease	17. Acres Assigned to Well DK & MV - 320.2 acres W/2
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease	
19. Proposed Depth 1753'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 5577' GL	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>[Signature]</u> Sr. Regulatory Specialist	Date <u>10/6/06</u>

PERMIT NO. [Signature] APPROVAL DATE 11/8/06  
APPROVED BY [Signature] TITLE AFM DATE 11/8/06

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.

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".

Contract I  
2000-1-1-10, Hobbs, NM 88241-1180

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form 10-102  
Revised February 21, 2004  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

Contract II  
2000-1-1-10, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Contract III  
1900 Rio Grande Rd., Aztec, NM 87410

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

2005 OCT 6 PM 2 20 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-0450 33993</b>	Pool Code <b>71629</b>	Pool Name <b>Basin Fruitland Coal</b>
Property Code <b>36129</b>	Property Name <b>ROURKE</b>	Well Number <b>100</b>
OCRID No. <b>14538</b>	Operator Name <b>BURLINGTON RESOURCES OIL &amp; GAS COMPANY, LP</b>	Elevation <b>5577'</b>

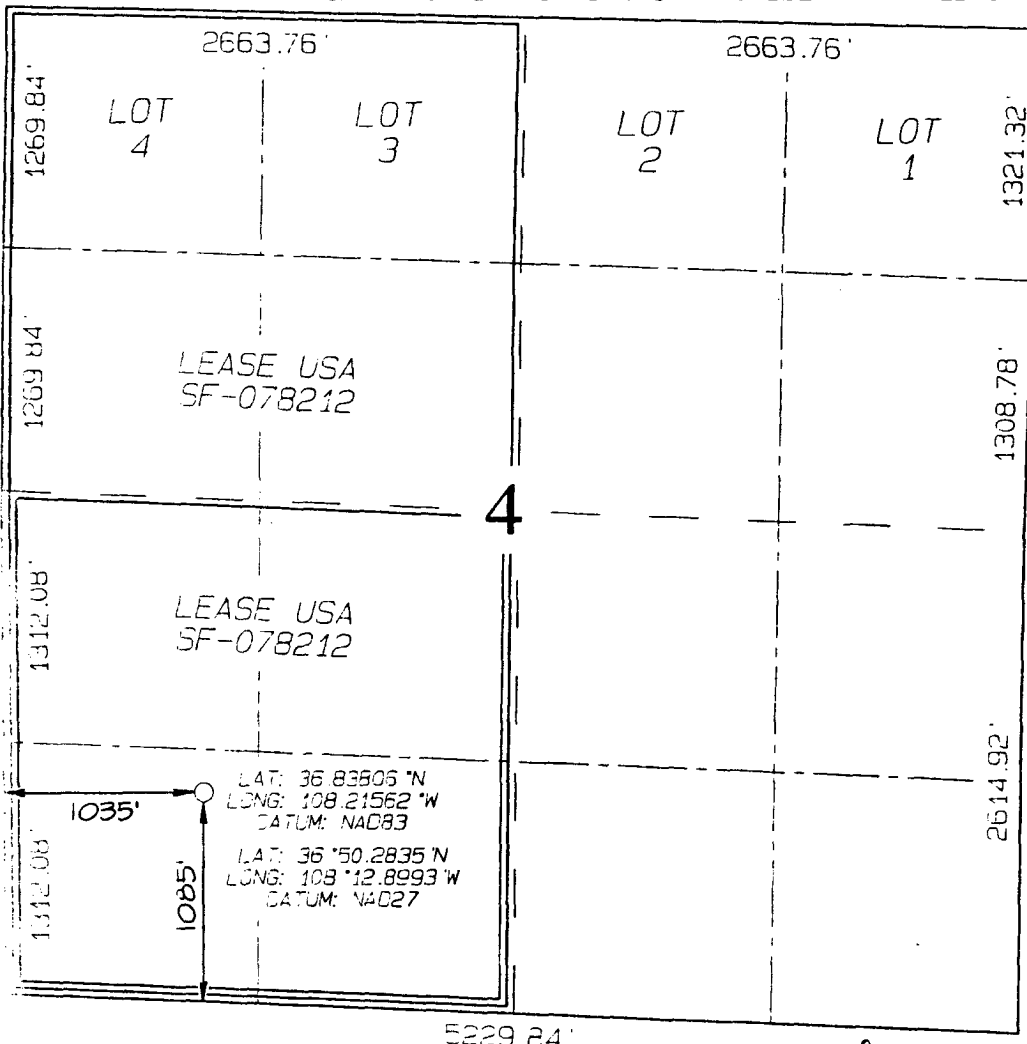
10 Surface Location

Well on Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	4	30N	13W		1085	SOUTH	1035	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

Well on Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres <b>W/2 320.2 ac.</b>					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



17 OPERATOR CERTIFICATION

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

Signature: *Jason C. Edwards*  
Printed Name: **Jason C. Edwards**  
Title: **Regulatory Analyst**  
Date: **10-6-06**

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: **MAY 2, 2005**

Signature and Seal of Professional Surveyor



**JASON C. EDWARDS**  
Certificate Number: **15269**

Office

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico

Energy, Minerals and Natural Resources

Form C-103

May 27, 2004

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-045- 33993

5. Indicate Type of Lease

STATE ☐FEE ☐

6. State Oil &amp; Gas Lease No.

SF-078212

7. Lease Name or Unit Agreement Name

Rourke

8. Well Number

100

9. OGRID Number

14538

10. Pool name or Wildcat

Basin Fruitland Coal

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

Oil Well ☐Gas Well ☒

Other

2. Name of Operator

BURLINGTON RESOURCES OIL &amp; GAS COMPANY LP

3. Address of Operator

3401 E. 30TH STREET, FARMINGTON, NM 87402

4. Well Location

Unit Letter M : 1085 feet from the South line and 1035 feet from the West line  
Section 4 Township 30N Rng 13W NMPM County San Juan

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

5577'

Pit or Below-grade Tank Application

☐ or Closure ☐

Pit type

New Drill

Depth to Groundwater

&gt;100

Distance from nearest fresh water well

&gt;1000

Distance from nearest surface water

&gt;1000

Pit Liner Thickness:

N/A

mil

Below-Grade Tank:

Volume

bbls;

Construction Material

## 12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

## NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐TEMPORARILY ABANDON ☐PULL OR ALTER CASING ☐PLUG AND ABANDON ☐CHANGE PLANS ☐MULTIPLE COMPL ☐

OTHER:

New Drill ☒

## SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐COMMENCE DRILLING OPNS. ☐CASING/CEMENT JOB ☐ALTERING CASING ☐P AND A ☐OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

New Drill, Unlined:

Burlington Resources proposes to construct a new drilling pit and an associated vent/flare pit. Based on Burlington's interpretation of the Ecosphere's risk ranking criteria, the new drilling pit and vent/flare pit will be an unlined pit as detailed in Burlington's Revised Drilling / Workover Pit Construction / Operation Procedures dated November 11, 2004 on file at the NMOCD office. A portion of the vent/flare pit will be designed to manage fluids, and that portion will be unlined, as per the risk ranking criteria. Burlington Resources anticipates closing these pits according to the Drilling / Workover Pit Closure Procedure dated August 2, 2004 on file at the NMOCD office.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE

TITLE

Sr. Regulatory Specialist

DATE

10/5/2006

Type or print name

Patsy Clugston

E-mail address:

pclugston@br-inc.com

Telephone No.

505-326-9518

For State Use Only

APPROVED BY

TITLE

DEPUTY OIL &amp; GAS INSPECTOR, DIST. 4

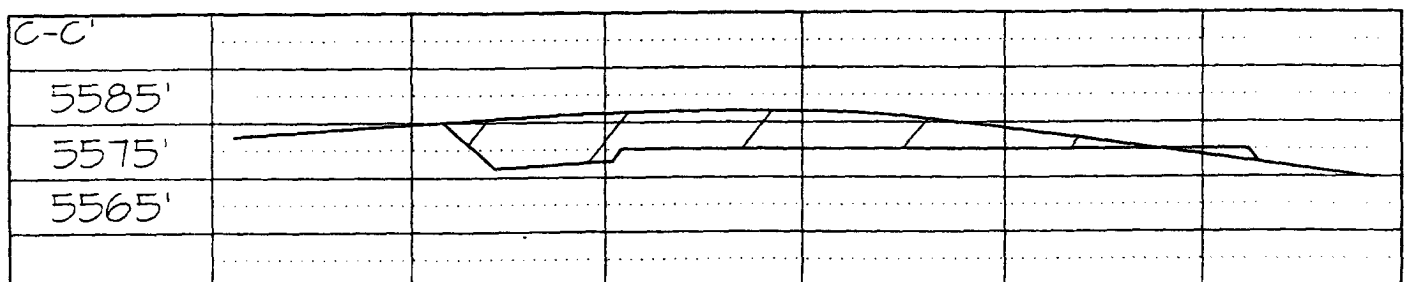
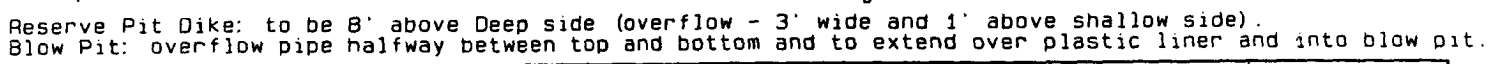
DATE

NOV 14 2006

Conditions of Approval (if any):

Exhibit "A"

**LATITUDE: 36.83806° N**  
**LONGITUDE: 108.21562° W**  
DATUM: NAD1983



Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction

# OPERATIONS PLAN

Well Name: Rourke #100  
 Location: Unit M, 1085' FSL & 1035' FWL, Section 4, T30N, R13W  
 San Juan County, New Mexico  
 Latitude 36o 50.2835'N Longitude 108o 12.8993' W  
 Formation: Basin Fruitland Coal  
 Elevation: 5577' GR

Formation:	Top	Bottom	Contents
Ojo Alamo	surface		aquifer
Kirtland	surface		gas
T/Fruitland	1137'	1557'	gas
Pictured Cliffs	1557'		
Total Depth	1757'		

Logging Program: None

Mud Program:	Interval	Type	Weight	Vis.	Fluid Loss
	0- 120'	Spud/Air/Air Mist	8.4-8.9	40-50	no control
	120-1753'	Non-dispersed	8.4-9.5	30-60	no control

Casing Program:	Hole Size	Depth Interval	Csg.Size	Wt.
Grade				
8 3/4 "		0 - 120'	7"	20.0#
J-55				
6 3/4 "		0 - 1757'	4 1/2"	10.5#
J/K-55				

Tubing Program:	Depth Interval	Csg.Size	Wt.
J-55	0 - 1757'	2 3/8"	4.7#

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

4 1/2" production casing - float shoe and float collar on bottom. 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 xmas tree assembly.

Cementing:

7" surface casing Pre-Set Drilled - Cement with Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.28 cu ft per sack yield. (Bring cement to surface). Wait on cement for 24 hours for pre-set holes before pressure testing or drilling out from under surface.

7" surface casing - Cement with 42 sx Type III cement with 0.25 pps Celloflake, 3% CaCl. ( 54 cu ft of slurry @ 1.28 yield). 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.  
WOC until cement establishes 250 psi compressive strength prior to NU of BOPE.

4 1/2" production casing - Cement with 68 sx (145 cu ft of slurry @ 2.13 yield) Premium Lite with 3% calcium chloride, 5 pps LCM-1, and 1/4#/sack celloflake, 0.4% FL-52, & 0.4% SMS. Tail with 90 sacks (124 cu ft of slurry @ 1.38 yield) Type III cmt with 1% calcium chloride, 1/4#/sack Celloflake and 0.2% FL-52. Total of 269 cf - 50% excess to circulate to surface.

BOP and tests:

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1 and #2). Prior to drilling out surface casing, test rams to 600 psi/30 min.

Completion - 6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 1500 psi/30 min.

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

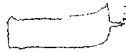
Pipe rams will be actuated at least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

Additional information:

- \* The Fruitland Coal formation will be completed.
- \* Anticipated pore pressure for the Fruitland Coal is 600 - 700 psi.
- \* This gas is dedicated.
- \* The west half of the section is dedicated to the FC.
- \* New casing will be utilized.
- \* Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

  
Drilling Engineer

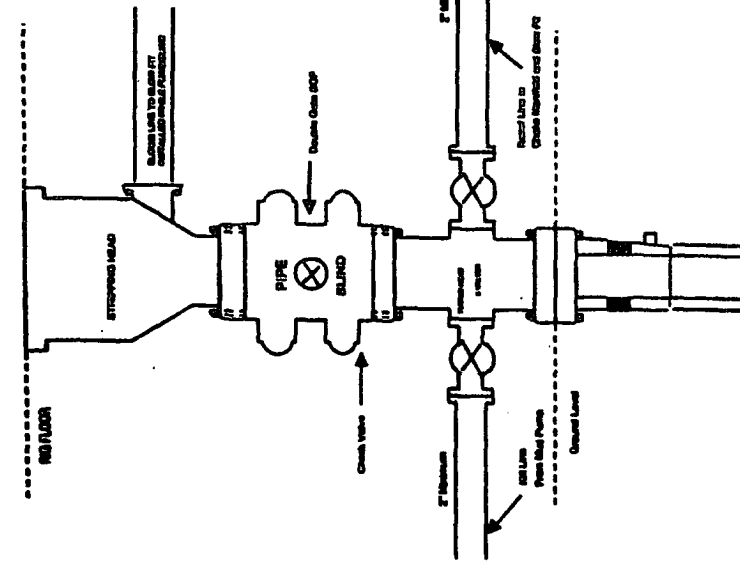
5/15/2006  
Date



Blowout preventor equipment (BOPE) tests must be performed using an appropriately sized test plug. The BOPE test must be performed and recorded using a test pump, calibrated test gauges and a properly calibrated strip or chart recorder. The test must be recorded in the driller's log and will include a low pressure test requirement of 250 psig held for five minutes and a high pressure test requirement held for ten minutes as described in Onshore Order No. 2 or otherwise authorized in the Application for Permit to Drill (APD). A successful BOPE test using a test plug is considered when no pressure drop occurs over the duration of the test. Test gauges and recorders must be of the proper range and resolution commensurate with the authorized test pressure. Where intermediate casing strings are used, only one BOPE test will be necessary contingent upon the test being conducted to the highest approved test pressure to which the BOPE will be exposed. Casing pressure tests must be held for 30 minutes with no more than a 10 percent pressure drop during the duration of the test.

# BURLINGTON RESOURCES

Completion/Workover Rig  
BOP Configuration  
2,000 psi System



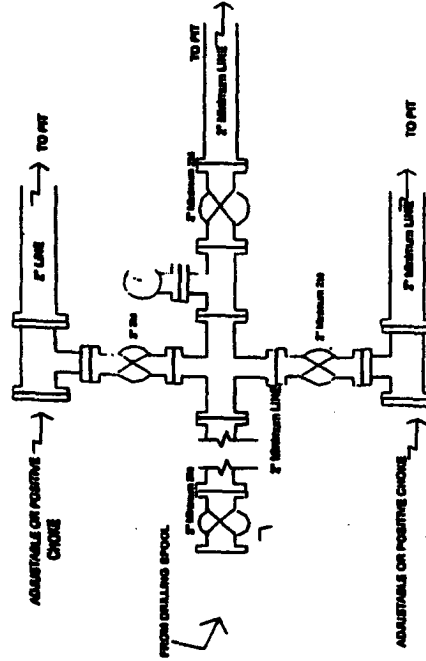
Minimum BOP installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 600 psi stripping head.

Figure #2

4-20-01

# BURLINGTON RESOURCES

Drilling Rig  
Choke Manifold Configuration  
2000 psi System



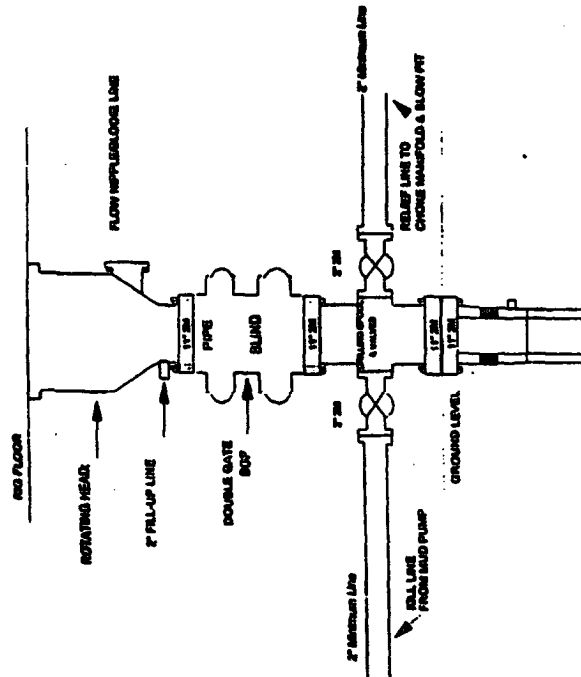
Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

4-20-01

# Burlington Resources

Drilling Rig  
2000 psi System



BOP installation from Surface Casing Point to Total Depth. 11\"/>

Figure #1