

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number NMMS 111921 Unit Reporting Number MV-8910010510 DK-891001051B
1b. Type of Well GAS	6. If Indian, All or Tribe
2. Operator <b>BURLINGTON</b> 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 Negro Canyon 9. Well Number #101
4. Location of Well 2245' FSL, 1075' FWL surface 665' FNL, 942' FWL bottom hole  Surface-Latitude 36°54.6247'N, Longitude 107°37.9234' W Bottom Hole-Lat. 36°54.9959'N, Longitude 107°37.9516' W	10. Field, Pool, Wildcat Basin Fruitland Coal  11. Sec., Twn, Rge, Mer. (NMPM) L Sec. 12, T31N, R08W API # 30-045- 32510
14. Distance in Miles from Nearest Town 25 miles to Blanco, NM Post Office	12. County San Juan ✓ 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1095'	
16. Acres in Lease	17. Acres Assigned to Well 320 N/2
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 3900'	
19. Proposed Depth 3869'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6902' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Joni Clark</u> Regulatory/Compliance Specialist	<u>8/4/04</u> Date

PERMIT NO.

APPROVAL DATE

APPROVED BY [Signature]

TITLE AFM

DATE 9-3-04

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".

NMOC

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  
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

**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 30-045-32510		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 34287	*Property Name NEGRO CANYON		*Well Number 101
*GRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP		*Elevation 6902'

**10 Surface Location**

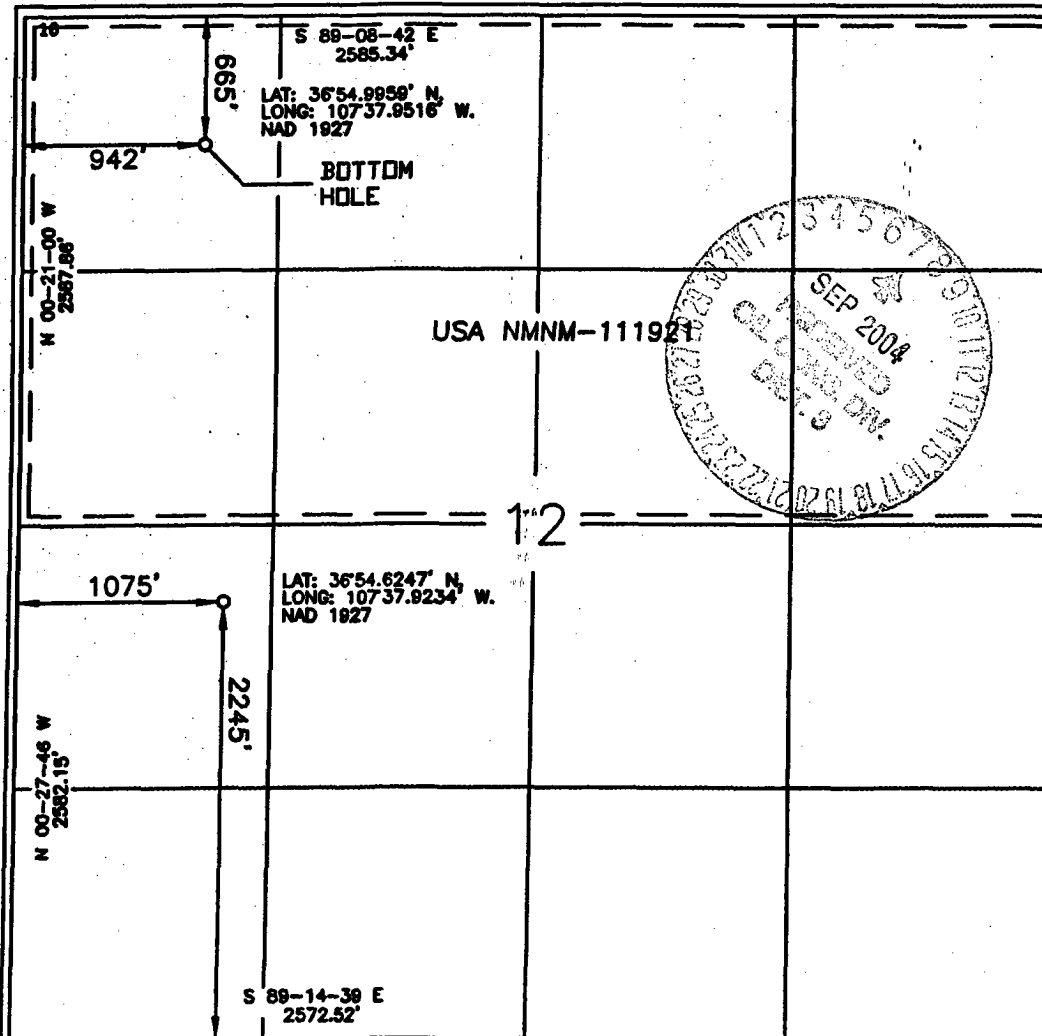
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	12	31-N	8-W		2245'	SOUTH	1075'	WEST	SAN JUAN

**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
D	12	31-N	8-W		665'	NORTH	942'	WEST	SAN JUAN

*Dedicated Acres N/2 320	*Joint or Infill	*Consolidation Code	*Order No.
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**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 to the best of my knowledge and belief.

Signature: Joni Clark  
Printed Name: Joni Clark  
Title: Regulatory Specialist  
Date: 8/6/04

**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: 8-5-04  
Signature: Glen W. Russell  
Certificate Number: 15703

Office

Energy, Minerals and Natural Resources

May 27, 2004

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

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-045-

5. Indicate Type of Lease

STATE ☐FEE ☐

6. State Oil &amp; Gas Lease No.

NMNM-111921

7. Lease Name or Unit Agreement Name

Negro Canyon

8. Well Number

101

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 L : 2320 feet from the South line and 1095 feet from the West lineSection 12 Township 31N Range 8W NMPM County San Juan, NM

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

Pit or Below-grade Tank Application

☒ or Closure ☐Pit type New Drill

Depth to Groundwater

&lt;50'

Distance from nearest fresh water well

&gt;1000'

Distance from nearest surface water

&gt;1000'

Pit Liner Thickness:

12

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 ☐

## SUBSEQUENT REPORT OF:

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

Burlington Resources proposes to construct a new drill pit. The new drill pit will be a lined pit as detailed in Burlington's general pit plan dated April 26, 2004 on file at the NMOCD office. Burlington Resources anticipates closing the pit according to the general pit permit 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

Regulatory Specialist

DATE

7/29/2004

Type or print name

Joni Clark

E-mail address:

jclark@br-inc.com

Telephone No.

326-9700

For State Use Only

APPROVED BY

TITLE

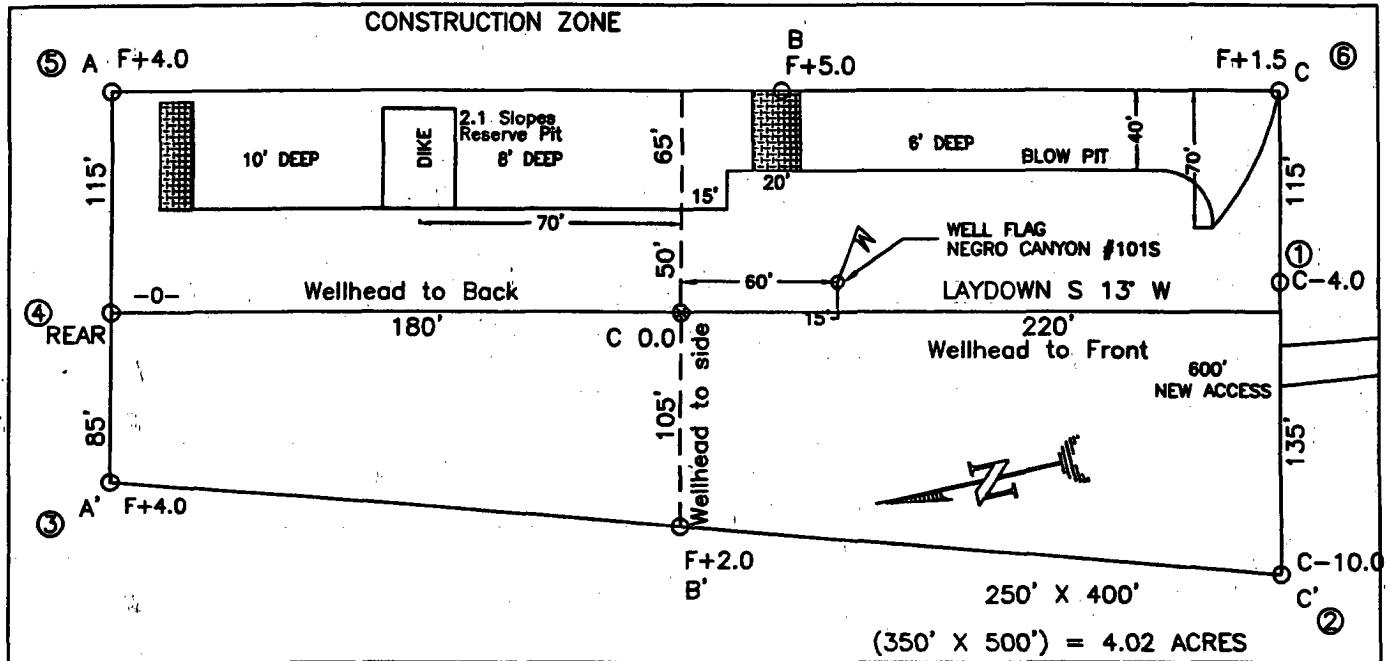
DEPUTY OIL &amp; GAS INSPECTOR, DIST. #2

DATE

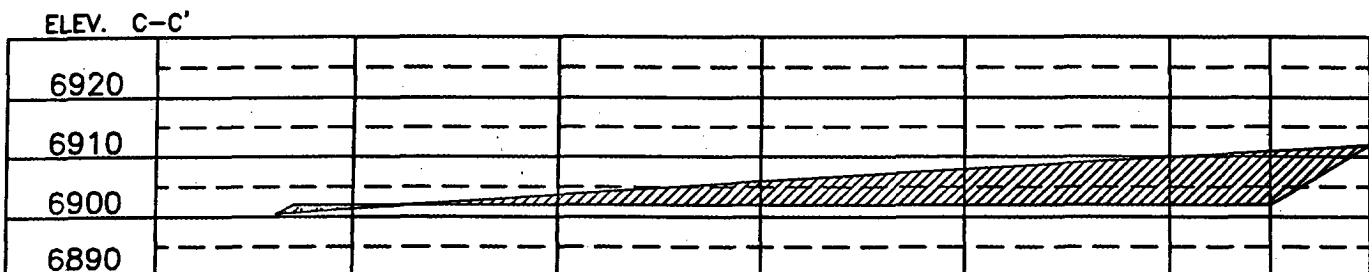
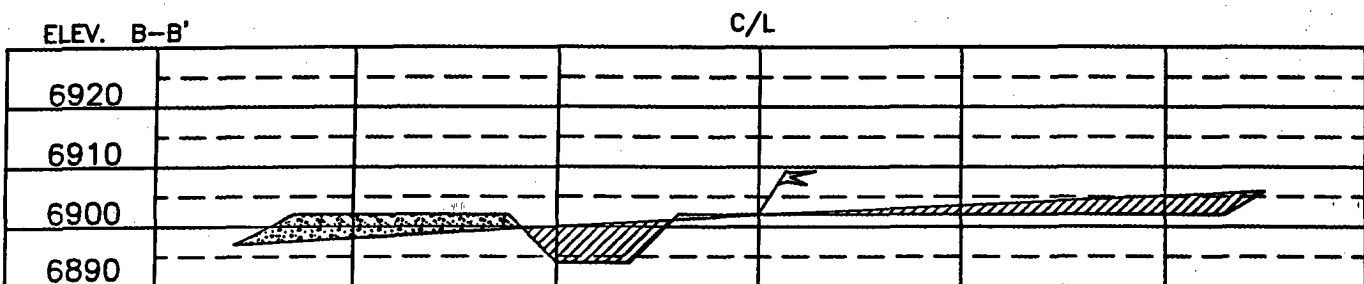
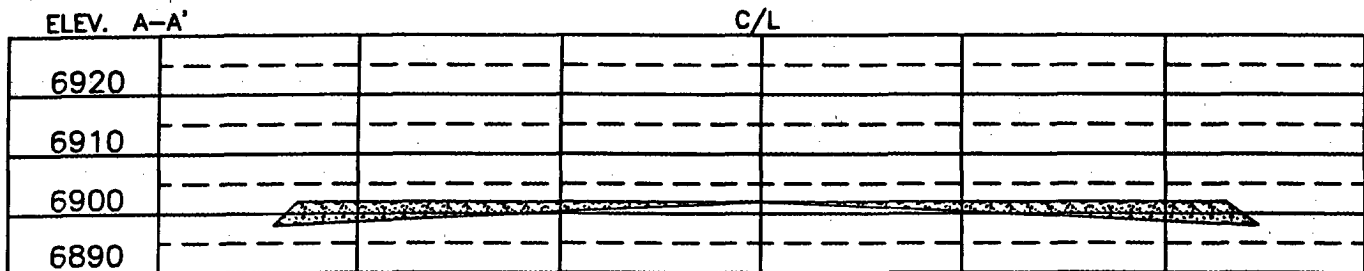
SEP - 7 2004

Conditions of Approval (if any):

**BURLINGTON RESOURCES OIL & GAS COMPANY LP**  
**NEGRO CANYON #101, 2320,' FSL & 1095' FWL**  
**SECTION 12, T-31-N, R-8-W, NMPM, SAN JUAN COUNTY, NM**  
**GROUND ELEVATION: 6902', DATE: JUNE 24, 2004**



RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).  
 BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.



NOTE: VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.  
 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:** Negro Canyon #101  
**Location:** Surface - 2245' FSL, 1075' FWL, Section 12, T-31-N, R-8-W  
 Bottom Hole - 665' FNL, 942' FWL, Section 12, T-31-N, R-8-W  
 San Juan County, New Mexico  
 Surface -Latitude 36° 54.6247'N, Longitude 107° 37.9234'W  
 Bottom Hole - Latitude 36° 54.9959'N, Longitude 107° 37.9516'W  
**Formation:** Basin Fruitland Coal  
**Elevation:** 6902' GL

<u>Formation Tops:</u>	<u>TVD</u>	<u>TMD</u>	<u>TVD Bottom</u>	<u>Contents</u>
Surface		San Jose	2629'	
Ojo Alamo	2629'	3383'	2709'	aquifer
Kirtland	2709'	3491'	3314'	gas
Fruitland	3314'	4156'	3484'	
Intermediate TD	<b>3434'</b>	4276'		
T/Coal	3484'	4326'	3784'	
B/Coal	3784'	4626'	3784'	
Pictured Cliffs	3785'	4627'		gas
TD	<b>3869'</b>	<b>4711'</b>		

## Logging Program:

Mudlog from 7" csg to 3869' (TVD).

## Mud Program:

<u>Interval (TVD)</u>	<u>Type</u>	<u>Weight</u>	<u>Vis</u>	<u>Fluid Loss</u>
0-200'	Spud Mud	8.4-9.0	40-50	no control
200'-3434'	LSND	8.4-9.0	30-60	less than 12
3434'-3869'	Air/Mist			

## Drilling:

### Surface Hole:

Drill to surface casing point of 200' and set 9 5/8" casing.

### Intermediate Hole:

Mud drill to kick off point of 250'. At this point the well will be directionally drilled by building 5.0 degrees per 100' with an azimuth of 356 degrees. The end of the build will be at a TVD of 1065', a TMD of 1157', hd of 341' and an angle of 45 degrees. This angle and azimuth will be held to a total depth of 2618' TVD and 3368' TMD. To enter the productive interval vertical, the well will be dropped 5.0 degrees per 100'. The well will be vertical at 7" casing point of 3434' TVD and 4276' TMD.

### Production Hole:

Production hole will be drilled vertical from 3434' TVD to 3869' TVD.

## Materials:

Casing program: (as listed, the equivalent, or better)

<u>Hole Size</u>	<u>Interval</u>	<u>Size</u>	<u>Weight</u>	<u>Vis.</u>
	<u>TOP</u>	<u>Bottom (TVD)</u>		
12 1/4"	0'	200'	9 5/8"	32.3# H-40
8 3/4"	0'	3434'	7"	23.0# J-55
6 1/4"	3394'	3869'	5 1/2"	15.5# J-55
		<u>TMD</u>		
		200'		
		4276'		
		4711'		

Casing program: (alternate)

<u>Hole Size</u>	<u>Interval</u>		<u>Size</u>	<u>Weight</u>	<u>Vis.</u>
	TOP	Bottom (TVD)			
12 1/4"	0'	200'	9 5/8"	32.3#	H-40
8 3/4"	0'	3434'	4 7/16"	23.0#	L-80

Tubing Program:

2 3/8"	0'	3869'	2 3/8"	4.7#	J-55
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Tubing Program: (alternate)

3 1/2"	0'	3869'	3 1/2"	9.2#	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 @ 2709' (TVD). Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

**Wellhead Equipment**

9 5/8" x 4 1/2" x 2 3/8" - 11" (2000 psi) wellhead assembly

**Cementing:**

## Conventionally Drilled

Cement with 147 sx Type III cement with 0.25 pps Celloflake, 3% CaCl. (188 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. **WOC until cement establishes 250 psi compressive strength prior to NU of BOPE.**

7" intermediate casing - lead w/389 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 (954 cu.ft., 50% excess to circulate to surface).

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

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

**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 BOPE to 600 psi for 30 min.


Intermediate TD to Total Depth - 7 1/6" 2000 psi (minimum) completion BOP stack (Reference Figure #2). Prior to drilling out intermediate casing, test BOPE and casing to 1500 psi for 30 minutes.

From surface to 7" TD - a choke manifold will be installed in accordance with Onshore Order No. 2 (Reference Figure #3). When the cavitation completion rig drills the production hole, the completion rig configuration will be used (Reference Figure #4). ~~No choke manifolds will be used on cavitation rig operations.~~

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:**

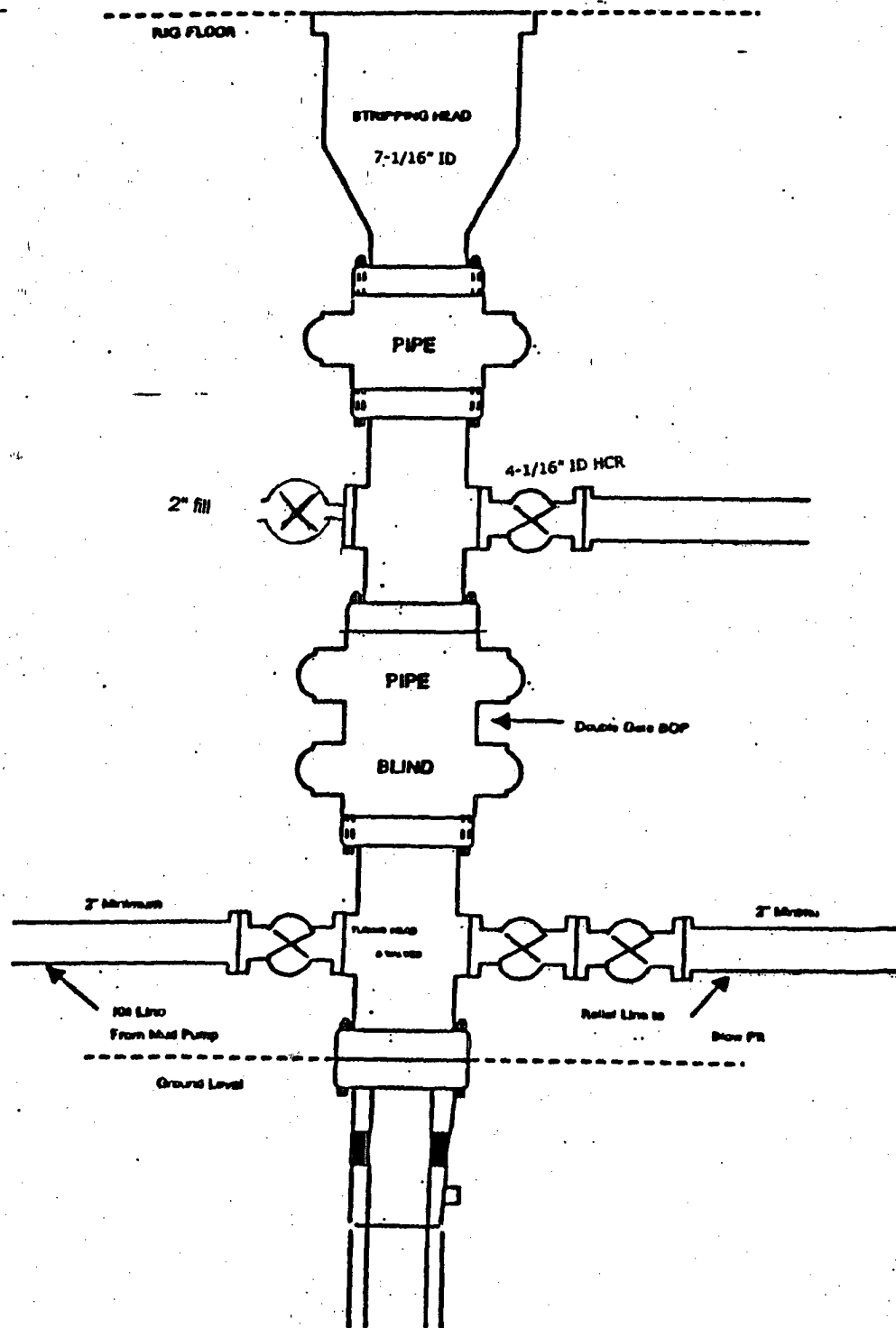
- \* The Fruitland Coal formation will be completed.
- \* Anticipated pore pressure for the Fruitland is less than 1000 psi.
- \* This gas is dedicated.
- \* The north half of Section 12 is dedicated to the Fruitland Coal.

  
Drilling Engineer

8-6-04  
Date

# BURLINGTON RESOURCES

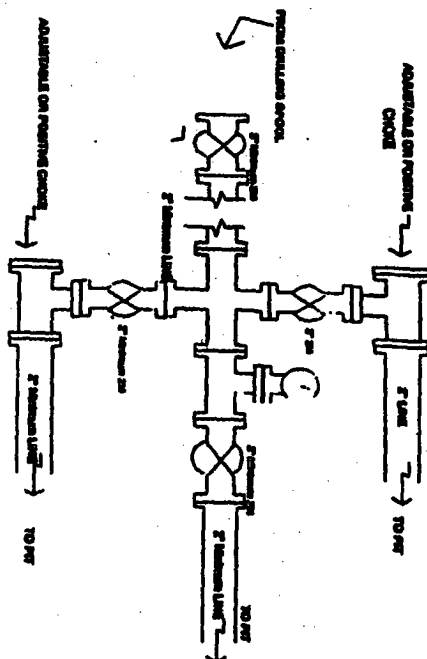
Figure #4  
Cavitation Rig  
BOP Configuration  
2,000 psi Minimum System





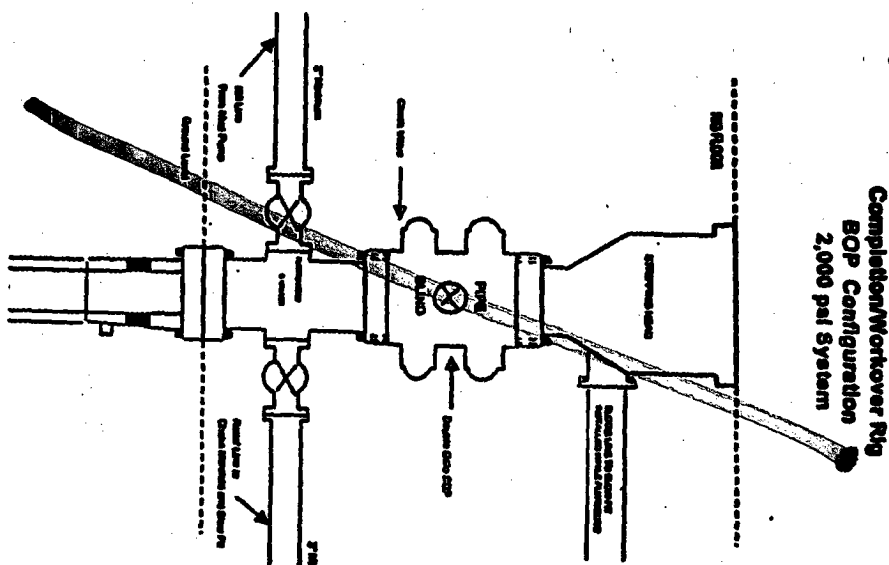
**BURLINGTON RESOURCES**  
**Completion/Workover Rig**  
**BOP Configuration**  
**2,000 psi System**

**Drilling Rig  
Choke Manifold Configurations  
2000 psi System**



**Figure #3**

**Chicago awarded bid selection from Surface Ceiling Poles to Total Depth, 2,000psi working pressure equipment with two choices.**



**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 shearing head to be installed on the top of the BOP. All BOP equipment to be 2000 psi working pressure or greater excluding 600 psi shearing head.

4-20-01