

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2005 JAN 31 PM 3:31  
RECEIVED  
070 FARMINGTON NM

1a. Type of Work  
DRILL

1b. Type of Well  
GAS

2. Operator  
**BURLINGTON**  
RESOURCES Oil & Gas Company

3. Address & Phone No. of Operator  
PO Box 4289, Farmington, NM 87499  
(505) 326-9700

4. Location of Well  
845' FNL, 1775' FWL  
Latitude 36° 45.5450'N, Longitude 108° 01.0352'W

5. Lease Number  
NMSF-03877  
Unit Reporting Number

6. If Indian, All. or Tribe

7. Unit Agreement Name

8. Farm or Lease Name  
Duff

9. Well Number  
#5S

10. Field, Pool, Wildcat  
Basin Fruitland Coal

11. Sec., Twn, Rge, Mer. (NMPM)  
C Sec. 5, T29N, R11W  
API # 30-045-32870

12. County  
San Juan

13. State  
NM

14. Distance in Miles from Nearest Town  
4.8 miles to intersection Hwy 550 & 64, Bloomfield

15. Distance from Proposed Location to Nearest Property or Lease Line  
845'

16. Acres in Lease

17. Acres Assigned to Well  
W/2 307.76

18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease  
1129'

19. Proposed Depth  
2243'

20. Rotary or Cable Tools  
Rotary

21. Elevations (DF, FT, GR, Etc.)  
5831' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program  
See Operations Plan attached

24. Authorized by: Tammy Jones  
Regulatory/Compliance Specialist  
Date 1-13-05

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY Jim Lovato TITLE Acting Field Manager DATE 3/11/05  
Munoz

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

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLETION OF ATTACHED  
PERMIT

NMOC

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

DISTRICT II  
1301 W. Grand Ave., Artesia, N.M. 88210

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

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102  
Revised June 10, 2003

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-32870	<sup>2</sup> Pool Code 71629070 FARMINGTON	<sup>3</sup> Pool Name Basin Fruitland Coal
<sup>4</sup> Property Code 6962	<sup>5</sup> Property Name DUFF	<sup>6</sup> Well Number 5S
<sup>7</sup> GRID No. 14538	<sup>8</sup> Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	<sup>9</sup> Elevation 5831'

<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	5	29-N	11-W	3	845	NORTH	1775	WEST	SAN JUAN

<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
<sup>12</sup> Dedicated Acres W/307.76					<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> 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		S 89-11-35 E - 2651.57'	
CALC CORNER FOUND 3 1/4" B.L.M. BC 1969 LOT 4	845' LOT 3 NM SF-03877	FOUND 3 1/4" B.L.M. BC 1969 LOT 2	LOT 1
1775'		LAT. 36°45.5450' N. (NAD 27) LONG. 108°01.0352 W. (NAD 27)	
S 00-07-04 W 2453.84' (C) NM NM-98140		5	
FOUND 5/8 REBAR IN MOUND OF STONE NM SF-03877	FIFIELD, E.F., et al		

17 OPERATOR CERTIFICATION

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

*Tammy Jones*  
Signature

Tammy Jones  
Printed Name  
Regulatory Specialist  
Title

1-13-05  
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 knowledge and belief.

OCTOBER 22 2004  
Date of Survey  
Signature of Surveyor  
Seal of 14831

14831  
Certificate Number

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.

NMSF-03877

7. Lease Name or Unit Agreement Name

Duff

8. Well Number

5S

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 C : 845 feet from the North line and 1775 feet from the West line  
 Section 5 Township 29N Range 11W 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

&gt; 100'

Distance from nearest fresh water well

&gt; 1000'

Distance from nearest surface water

&lt; 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 ☐PLUG AND ABANDON ☐TEMPORARILY ABANDON ☐CHANGE PLANS ☐PULL OR ALTER CASING ☐MULTIPLE COMPL ☐**SUBSEQUENT REPORT OF:**REMEDIAL WORK ☐ALTERING CASING ☐COMMENCE DRILLING OPNS. ☐P AND A ☐CASING/CEMENT JOB ☐

OTHER:

New Drill ☒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 drilling pit and an associated vent/flare pit. Based on Burlington's interpretation of the Ecosphere's risk ranking criteria, the new drilling pit will be a lined 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 lined 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 Joni Clark TITLE Sr. Regulatory Specialist DATE 12/16/2004

Type or print name

Joni Clark

E-mail address:

jclark@br-inc.com

Telephone No.

326-9700

**For State Use Only**APPROVED BY [Signature]

TITLE

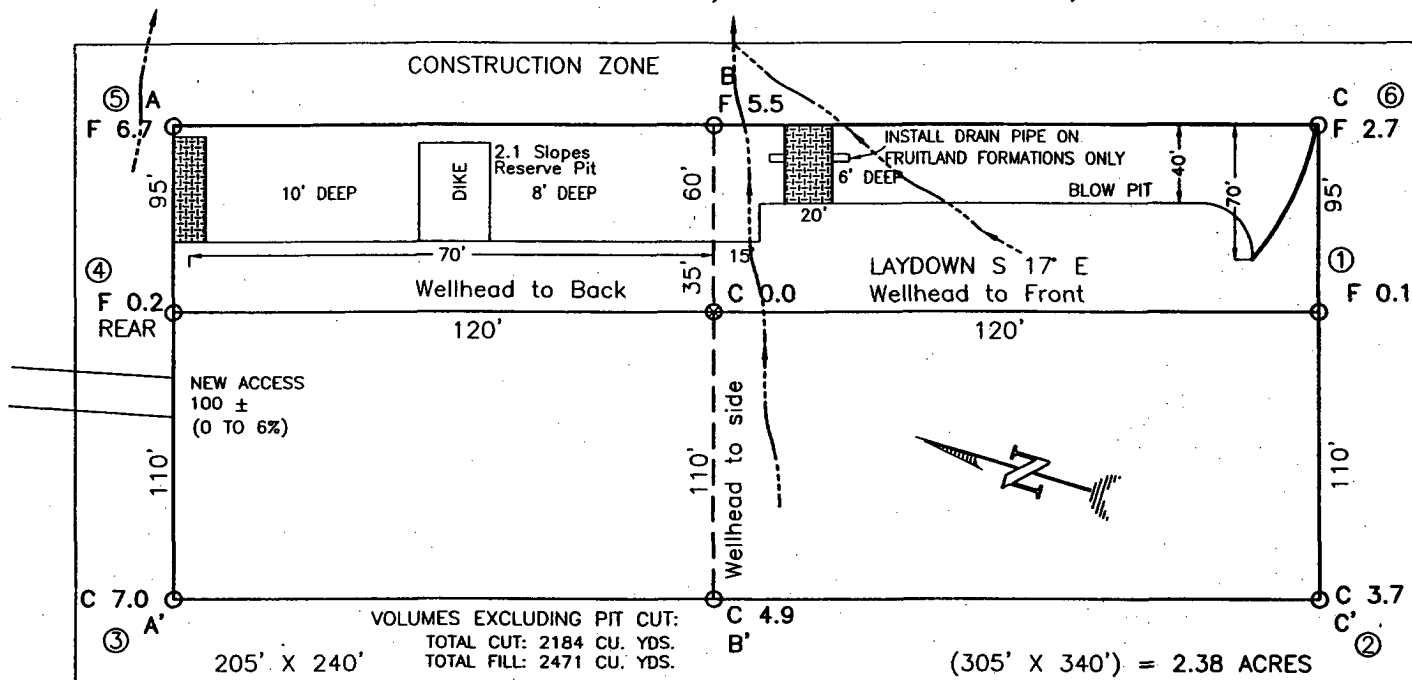
DEPUTY OIL &amp; GAS INSPECTOR, DIST. 3

DATE

MAR 14 2005

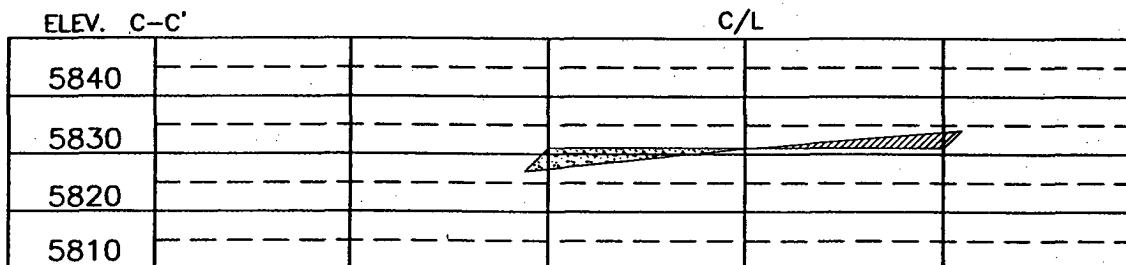
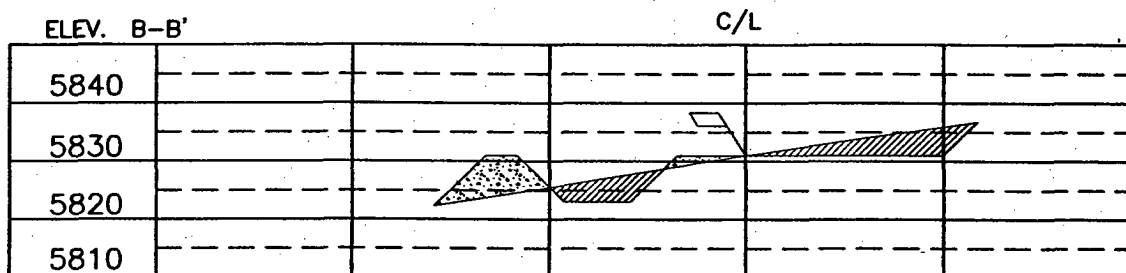
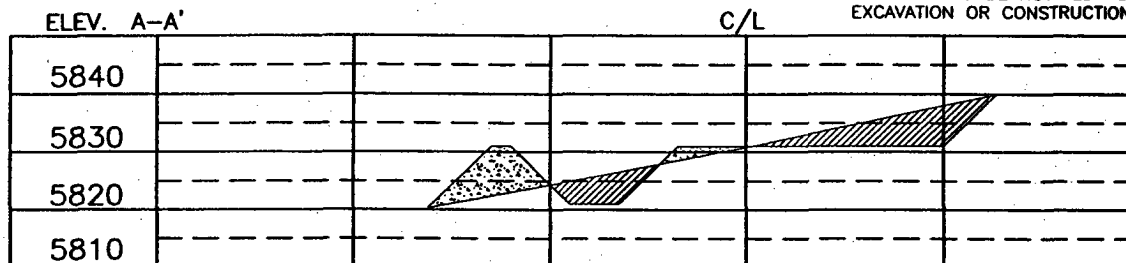
Conditions of Approval (if any):

**BURLINGTON RESOURCES OIL & GAS COMPANY LP**  
**DUFF NO. 5S, 845 FNL 1775 FWL**  
**SECTION 5, T-29-N, R-11-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO**  
**GROUND ELEVATION: 5831, DATE: OCTOBER 19, 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: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.



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.

REVISION:	DATE:	REVISION BY:
<p><b>Daggett Enterprises, Inc.</b>                  Surveying and Oil Field Services                  P. O. Box 15088 · Farmington, NM 87401                  Phone (505) 326-1772 · Fax (505) 326-6019                  NEW MEXICO L.S. No. 14831                  DRAWN BY: G.V. DATE: 10/29/04                  CHECKED: BR537CFB                  ROW: BR537</p>		

## OPERATIONS PLAN

**Well Name:** DUFF 5S  
**Location:** 845' FNL & 1775' FWL, Section 05-T29N-R11W  
San Juan County, New Mexico  
**Formation:** Basin Fruitland Coal  
**Elevation:** 5831' GL

<b><u>Formation Tops:</u></b>	<b><u>Top</u></b>	<b><u>Bottom</u></b>	<b><u>Contents</u></b>
Surface	San Jose	705'	
Ojo Alamo	705'	800'	aquifer
Kirtland	800'	1788'	gas
Fruitland Coal	1788'	2033'	gas
B/Fruitland Coal	2033'	2043'	gas
Pictured Cliffs	2043'		gas
<b>Total Depth:</b>	<b>2243'</b>		gas

**Logging Program:**

Mudlog: none  
Coring: none  
Cased Hole: GR/CBL from TD to min operations depth

**Mud Program:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0 - 120'	Spud MUD/Air/Air Mist	8.4 - 9.0	40 - 50	no control
0 - 2243'	Polymer Mud/Polymer-Starch	8.4 - 9.0	40 - 50	no control

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

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csq.Size</u>	<u>Wt.</u>	<u>Grade</u>
8 3/4"	0' - 120'	7"	32.3#	H-40
6 1/4"	0' - 2243'	4 1/2"	10.5#	J-55

**Tubing Program:**

<u>Depth Interval</u>	<u>Csq.Size</u>	<u>Wt.</u>	<u>Grade</u>
0' - 2243'	2 3/8"	4.7#	J-55

**Float Equipment:**

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

4 1/2" production casing -guide shoe and float collar.

Standard centralizers run every third joint above shoe. Two tubolizing type centralizers - one below and one into the base of the Ojo Alamo 800'. 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" 2000 psi xmas tree assembly.

Cementing:

7" surface casing -

Pre-Set Drilled -

Cement with 34 sx Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (54 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 42 sacks Type III cement with 0.25 pps Celloflake, 3% CaCl. (54 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.

4 1/2" production casing -

Lead w/104 sacks Premium Lite with 3% calcium chloride, 5 ps LCM-1, and 1/4#/sack celloflake, 0.4% FL-52, & 0.4% SMS. Tail with 90 sacks Type III cmt with 1% calcium chloride, 1/4#/sack celloflake and 0.2% FL-52 (345 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.

BOP and Tests:

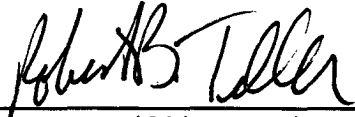
From surface to 7" TD -

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). ~~When the cavitation completion rig drills the production hole, the completion rig configuration will be used (Reference Figure #4).~~

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 E/2SW/4, Lot 3, W/2SW/4, Lot 4, S/2NW/4 of Section 5 is dedicated to Fruitland Coal.



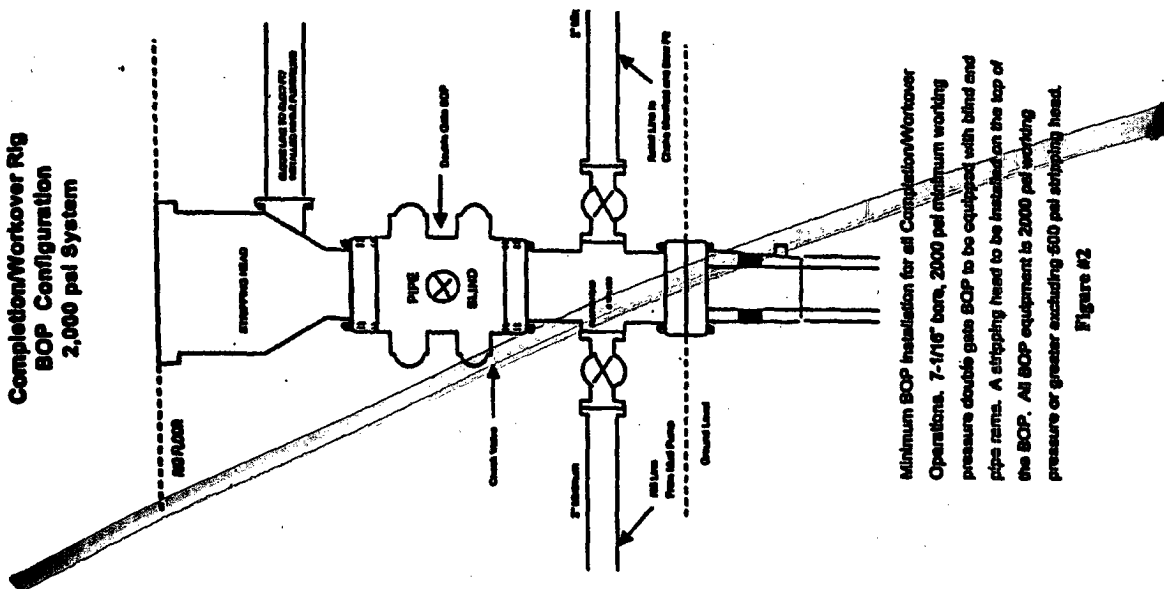
Drilling Engineer

1-13-05

Date

# BURLINGTON RESOURCES

Completion/Workover Rig  
BOP Configuration  
2,000 psi System



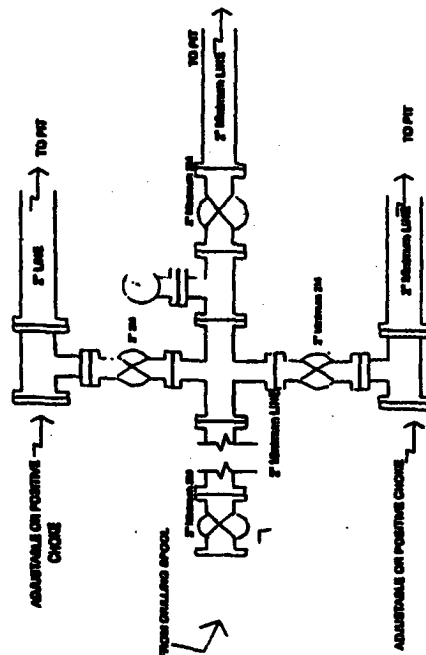
Minimum BOP installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A shipping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi shipping head.

Figure #2

4-20-01

# BURLINGTON RESOURCES

Drilling Rig  
Choke Manifold Configuration  
2000 psi System



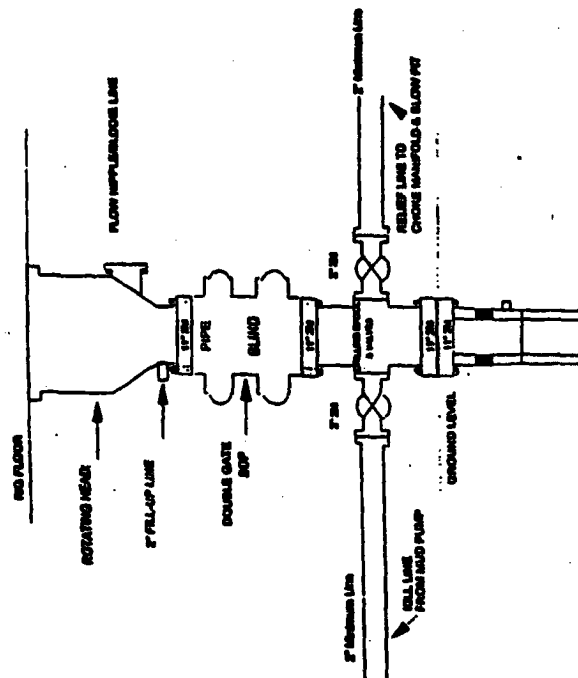
Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

4-20-01

# Burlington Resources

Drilling Rig  
2000 psi System



BOP installation from Surface Casing Point to Total Depth. 11" Bore 10" Horizontal, 2000 psi working pressure double gate BOP to be equipped with blind rams and pipe rams. A 500 psi rotating head on top of ram preventers. All BOP equipment is 2,000 psi working pressure.

Figure #1



# BURLINGTON RESOURCES

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

