

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2004 DEC 7 PM 1:50

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
1145' FNL, 260' FEL
Latitude 36° 28.6765'N, Longitude 107° 49.2628'W

5. Lease Number
MST-03493
Unit Reporting Number

6. If Indian, All. or Tribe

7. Unit Agreement Name
Huerfano Unit

8. Farm or Lease Name
Huerfano Unit

9. Well Number
#163E

10. Field, Pool, Wildcat
Basin Dakota

11. Sec., Twn, Rge, Mer. (NMPM)
Sec. 19, T26N, R09W
API # 30-045-32747

12. County
San Juan

13. State
NM

14. Distance in Miles from Nearest Town
18.6 miles intersection Hwy 550 & 64

15. Distance from Proposed Location to Nearest Property or Lease Line
260'

16. Acres in Lease

17. Acres Assigned to Well
DK 320 E/2

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease
1855'

19. Proposed Depth
6837'

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6505' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Joni Clark
Regulatory Specialist

Date 11/23/04

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

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.

NO HPA NOTIFICATION REQUIRED UNDER ORDER R-8768F.

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

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

NMOCDD

DISTRICT II
811 South First, Artesia, N.M. 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87506

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 30-045-32747		*Pool Code 71599	*Pool Name Basin Dakota
*Property Code 7139	*Property Name HUERFANO UNIT		*Well Number 163E
*OGEID No. 14538	*Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP		*Elevation 6505'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot 12a	Feet from the	North/South line	Feet from the	East/West line	County
A	19	26-N	9-W		1145'	NORTH	260'	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Mn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres. E/2 320 acres			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**

18

LOT 1

LOT 2

LOT 3

LOT 4

9

S 89-27-43 W
2604.96'

1145'
260'

LAT: 36°28.6765' N.
LONG: 107°49.2628' W.
NAD 1927

N 00-21-E
5288.55'

USA SF-03493

JAN 2005
RECEIVED
OL. CONS. DIV.
DIST. 3

17 OPERATOR CERTIFICATION

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

Jon Clark
Signature

Joni Clark

Printed Name
Sr. Regulatory Specialist

Title _____

11-10-04

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 11-10-04

Signature and Seal of Prosecuting Attorney

GLW

15703

15

RECEIVED

Charles H. 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 & Gas Lease No.

SF-03493

7. Lease Name or Unit Agreement Name

Huerfano Unit

8. Well Number

163E

9. OGRID Number

14538

10. Pool name or Wildcat

Basin Dakota

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 & GAS COMPANY LP

3. Address of Operator

3401 E. 30TH STREET, FARMINGTON, NM 87402

4. Well Location

Unit Letter A : 1145 feet from the North line and 260 feet from the East lineSection 19 Township 26N Range 9W 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

> 100'

Distance from nearest fresh water well

> 1000'

Distance from nearest surface water

> 1000'

Pit Liner Thickness:

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.

Burlington Resources proposes to construct a new drilling pit and an associated blow/flare pit. Based on Burlington's interpretation of the Ecosphere's risk ranking criteria, the new drilling pit and blow/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 blow/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

11/24/2004

Type or print name

Joni Clark

E-mail address:

jclark@br-inc.com

Telephone No.

326-9700

For State Use Only

APPROVED BY

TITLE

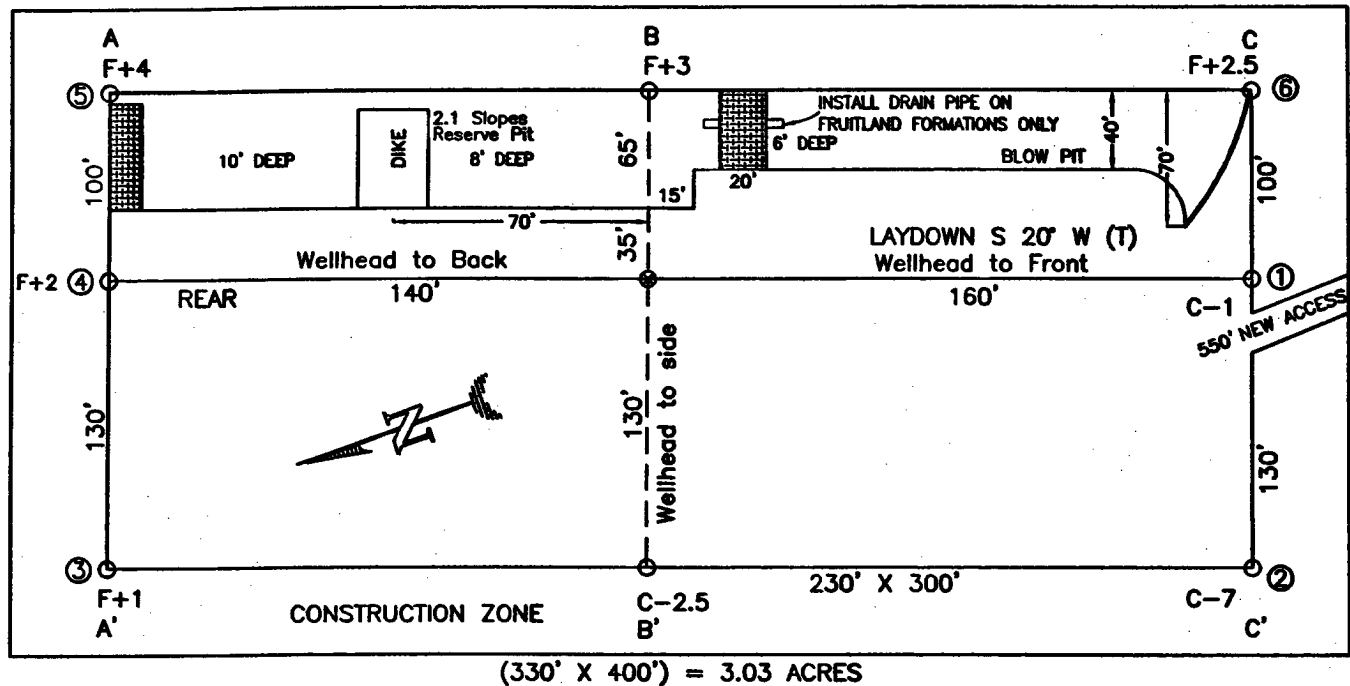
DEPUTY OIL & GAS INSPECTOR, DIST. 05

DATE

JAN - 3 2005

Conditions of Approval (if any):

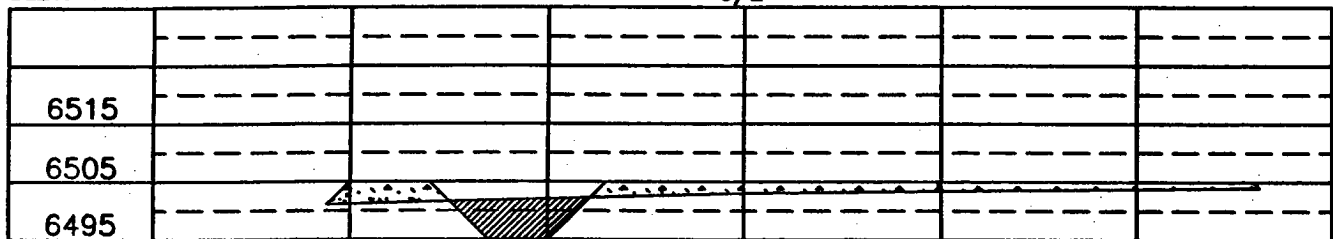
BURLINGTON RESOURCES OIL & GAS COMPANY LP
HUERFANO UNIT 163E, 1145' FNL & 260' FEL
SECTION 19, T-26-N, R-9-W, NMPM, SAN JUAN COUNTY, NM
GROUND ELEVATION: 6505', DATE: OCTOBER 6, 2004



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.

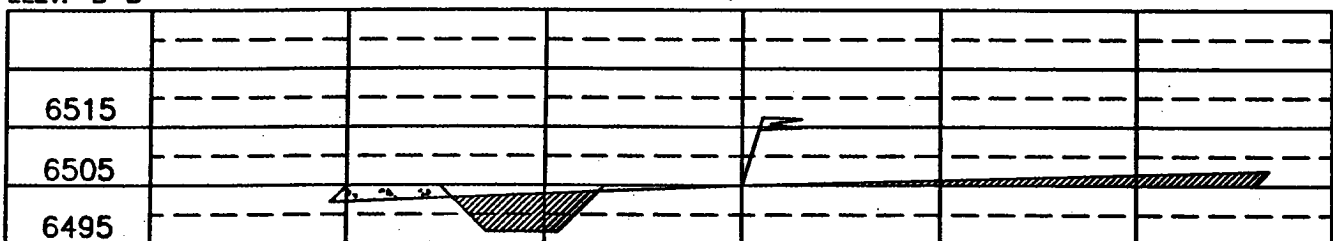
ELEV. A-A'

C/L



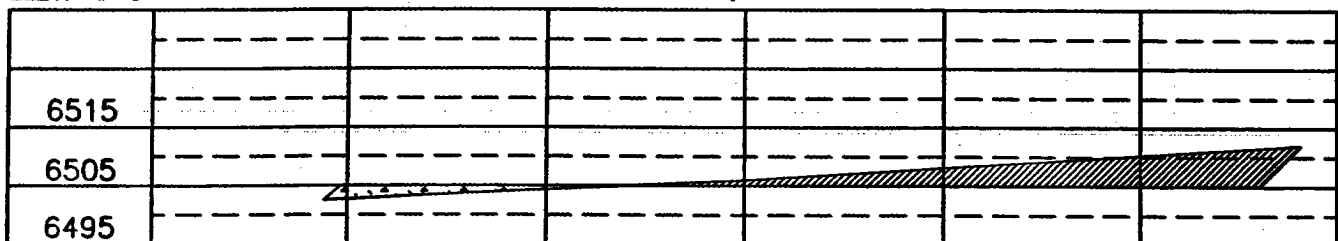
ELEV. B-B'

C/L



ELEV. C-C'

C/L



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: Huerfano Unit #163E
Location: 1145' FNL, 260' FEL, Section 19, T-26-N, R-09-W
San Juan County, New Mexico
Latitude 36° 28.68, Longitude 107° 49.26
Formation: Basin Dakota
Elevation: 6837' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1199'	
Ojo Alamo	1199'	1344'	aquifer
Kirtland	1344'	1917'	gas
Fruitland	1917'	2094'	
Pictured Cliffs	2094'	2187'	gas
Lewis	2187'	2502'	gas
Intermediate TD	2287'		
Huerfanito Bentonite	2502'	2962'	gas
Chacra	2962'	3712'	gas
Cliff House	3712'	3729'	
Menefee	3729'	4502'	gas
Point Lookout	4502'	4767'	gas
Mancos	4767'	5564'	gas
Gallup	5564'	6433'	gas
Greenhorn	6433'	6486'	gas
Graneros	6486'	6516'	gas
Two Wells	6516'	6606'	
Paguete	6606'	6664'	
Cubero	6664'	6715'	
Encinal Canyon	6715'	6797'	
Morrison	6797'		gas
TD	6837'		

Logging Program:

Mud Logs/Coring/DST -
Mud logs - from 6333' to TD
Coring - none
DST - none
Open hole - none
Cased hole - Gamma Ray - surface to TD

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 300 320	Spud MUD/Air/Air Mist	8.4-9.0	40-50	no control
300- 6837'	LSND	8.4-9.0	30-60	no control

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

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 300 320	8 5/8"	32.3 # 32	J-55
7 7/8"	0' - 6837'	4 1/2"	10.5#	J-55

Tubing Program: 0' - 6837' 2 3/8" 4.7# J-55

BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

Wellhead -

8 5/8" x 4 1/2" x 2 3/8" x 2000 psi tree assembly.

General -

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drill crew.
- All BOP tests & drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

8 5/8" surface casing conventionally drilled -

Cement with 290 sacks Type III cement with 0.25 pps Celloflake, 3% calcium chloride. (200% excess, bring cement to surface). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60 degrees F. prior to nipple up of BOPE. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

4 1/2" Production Casing Two Stage -

Stage collar set @ 4425'. First Stage: Lead with w/291 sacks Premium Lite cmt w/3% calcium chloride, 0.4% sodium metasilicate, 0.25 pps celloflake, 5 pps LCM-1 and 0.4% FL-52. Tail w/75 sacks Premium Lite HS FM cmt w/0.25 pps celloflake, 0.3% CD-32, 6.25 pps LCM-1 and 1% FL-52. Second Stage: 664 sacks Premium Lite cmt w/3% calcium chloride, 0.4% metasilicate, 0.25 pps celloflake, 5 pps LCM-1 and 0.4% FL-52. (2173 cu ft - 40% excess, circulate to surface, run CBL/temperature survey if cement is not circulated to surface.)

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every fourth joint off bottom, to the base of the Ojo Alamo @ 1344'. Two turbolating centralizers at the base of the Ojo Alamo 1344'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

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

If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

Special Drilling Operations (Air/Mist Drilling):

The following equipment will be operational while air/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Dakota formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

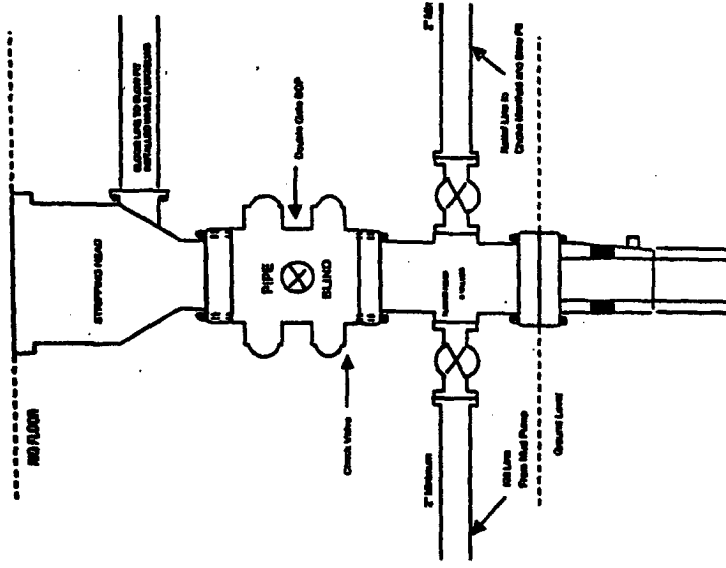
Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
Dakota	2500 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The east half of Section 19 is dedicated to the Dakota formation.
- This gas is dedicated.

Sean Corrigan
Drilling Engineer

November 29, 2004
Date

BURLINGTON RESOURCES

Completion/Workover Rig
BOP Configuration
2,000 psi System

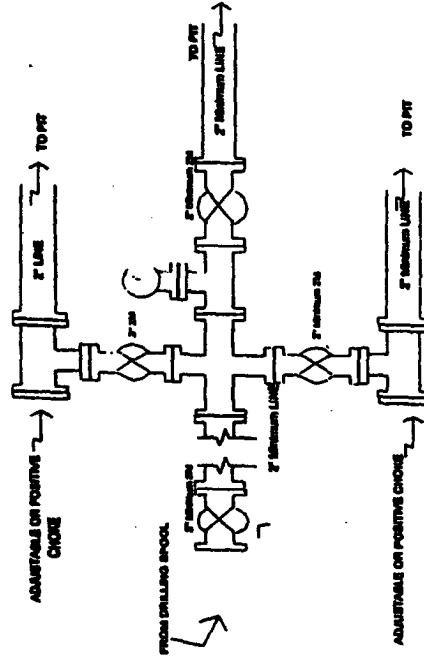


Minimum BOP Installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi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

Figure #2

BURLINGTON RESOURCES

Drilling Rig
Choke Manifold Configuration
2000 psi System

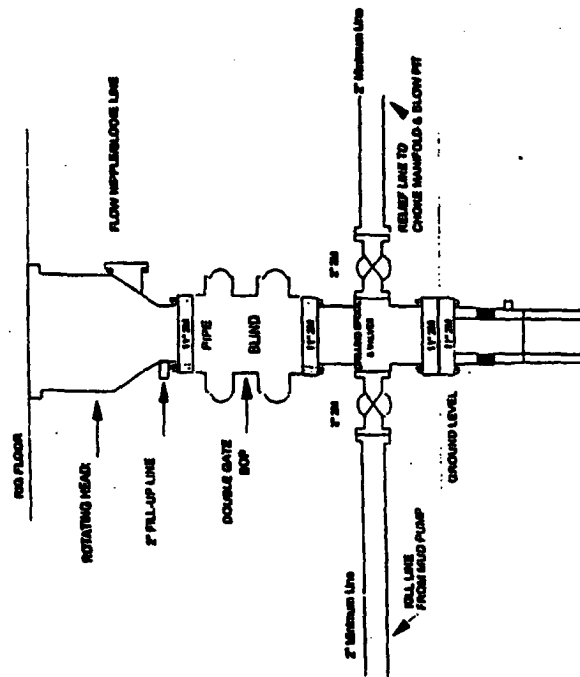


Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

Burlington Resources

Drilling Rig
2000 psi System



BOP Installation from Surface Casing Point to Total Depth. 11" Bore 10" Nominal, 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 preventer. All BOP equipment is 2,000 psi working pressure

Figure #1

4-20-01

4-20-01