

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 SF-081098 Unit Reporting Number
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator BURLINGTON RESOURCES Oil & Gas Company APR 2001	7. Unit Agreement Name
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Riddle 9. Well Number #2C
4. Location of Well 800' FSL, 1955' FWL Latitude 36° 50.1'N, Longitude 107° 46.2'W	10. Field, Pool, Wildcat Blanco PC/Blanco MV 11. Sec., Twn, Rge, Mer. (NMPM) N Sec. 3, T-30-N, R-9-W API # 30-045-30483
14. Distance in Miles from Nearest Town 16 miles from Aztec	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 800'	17. Acres Assigned to Well PC: SW/160 MV: W/322.86
16. Acres in Lease	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 1000'	
19. Proposed Depth 5461'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6039' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"
24. Authorized by: <u>[Signature]</u> Regulatory/Compliance Supervisor	Date <u>11-20-00</u>

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY /s/ Lee Otterli TITLE _____ DATE APR - 3

Archaeological Report to be submitted

Threatened and Endangered Species Report to be submitted

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.

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

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

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
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 30-045-30483	² Pool Code 72359/72319	³ Pool Name Blanco Pictured Cliffs/Blanco Mesaverde
⁴ Property Code 7424	⁵ Property Name RIDDLE	⁶ Well Number 2C
⁷ OGRID No. 14538	⁸ Operator Name BURLINGTON OIL AND GAS, INC.	⁹ Elevation 6039' —

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
N	3	30-N	9-W		800'	SOUTH	1955'	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
¹² Dedicated Acres PC: SW/160 MV: W/322.86			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

<p>USA SF-081098</p> <p>LAT. 36°50.1'N LONG. 107°46.2'W</p>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Peggy Cole</i> Signature Peggy Cole Printed Name Regulatory Supervisor Title 11-20-00 Date</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>9-80Y A 808 Date of Survey NEW MEXICO 8394 REGISTERED PROFESSIONAL LAND SURVEYOR Signature and Seal of Professional Surveyor Certificate Number</p>

BURLINGTON OIL AND GAS, INC.

RIDDLE 2C

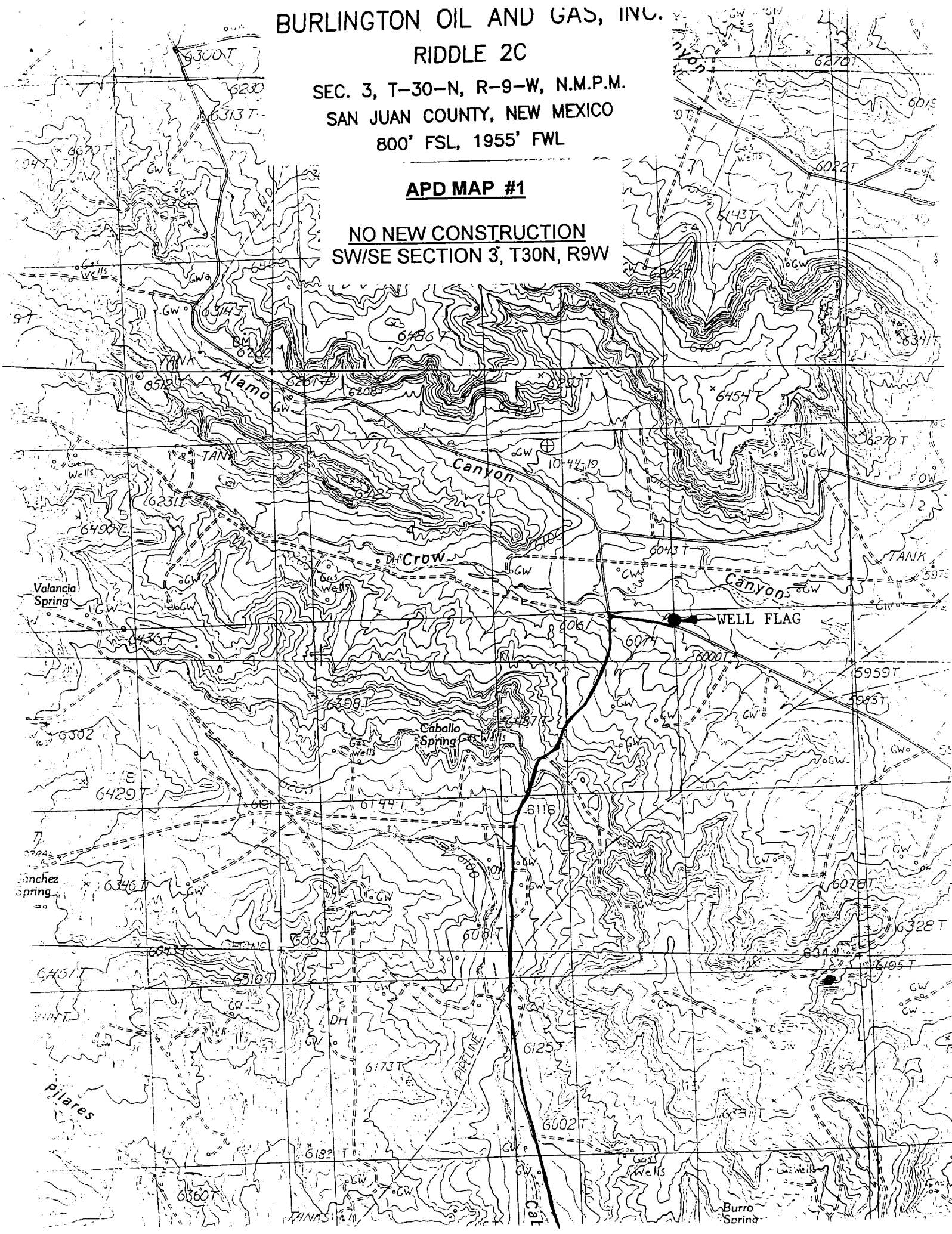
SEC. 3, T-30-N, R-9-W, N.M.P.M.

SAN JUAN COUNTY, NEW MEXICO

800' FSL, 1955' FWL

APD MAP #1

NO NEW CONSTRUCTION
SW/SE SECTION 3, T30N, R9W



OPERATIONS PLAN

Well Name: Riddle #2C
Location: 800' FSL, 1955' FWL, Sec 3, T-30-N, R-9-W
San Juan County, NM
Latitude 36° 50.1, Longitude 107° 46.2
Formation: Blanco Pictured Cliffs/Blanco Mesaverde
Elevation: 6039' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1521'	
Ojo Alamo	1521'	1651'	aquifer
Kirtland	1651'	2208'	gas
Fruitland	2208'	2836'	gas
Pictured Cliffs	2836'	2949'	gas
Lewis	2949'	3571'	gas
Intermediate TD	3199'		
Mesa Verde	3571'	3891'	gas
Chacra	3891'	4579'	gas
Massive Cliff House	4579'	4691'	gas
Menefee	4691'	5061'	gas
Massive Point Lookout	5061'	5461'	gas
TD	5461'		

Logging Program:

Open hole - Array Induction, Neutron-Density - intermediate TD to surface.
Cased hole - GR/CBL - TD to surface
Cores - none

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-9.0	40-50	no control
200- 3199'	LSND	8.4-9.0	30-60	no control
3199- 5461'	Air/N2	n/a	n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid 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' - 200'	9 5/8"	32.3#	WC-50
8 3/4"	0' - 3199'	7"	20.0#	J-55
6 1/4"	3099' - 5461'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 5461'	1 1/2"	2.90# EUE
0' - 2949'	1 1/2"	2.75# IJ

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.

BOP Specifications, Wellhead and Tests (Cont'd):

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 -

9 5/8" x 7" 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:

9 5/8" surface casing - cement with 159 sx Class "H" cement with 1/4# flocele/sx and 3% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

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

7" intermediate casing -

Lead w/328 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele. Tail with 90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele (962 cu.ft. of slurry, 100% excess to circulate to surface). WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar at 2108'. First stage: cement w/256 sx 50/50 Class "G" poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.1% antifoam and 0.25 pps Flocele. Second stage: w/246 sx 50/50 Class "G"/Trinity Light with 2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Flocele (962 cu.ft. of slurry, 100% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 1651'. Two turbolating centralizers at the base of the Ojo Alamo at 1651'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Liner -
Cement to circulate liner top. Pump 237 sx Class "G" 50/50 poz w/4.5% gel, 0.25 pps Flocele, 5 pps Gilsonite, 0.25% fluid loss, 0.1% retardant (339 cu.ft., 40% excess to circulate liner). WOC a minimum of 18 hrs prior to completing.

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

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

- 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):

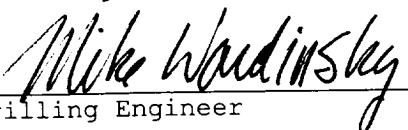
The following equipment will be operational while gas/mist drilling:

- 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 Pictured Cliffs and Mesa Verde formations will be completed and dualled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	200 psi
Pictured Cliffs	200 psi
Mesa Verde	350 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 southwest quarter of Section 3 is dedicated to the Pictured Cliffs and the west half of Section 3 is dedicated to the Mesa Verde formation of this well.
- This gas is dedicated.

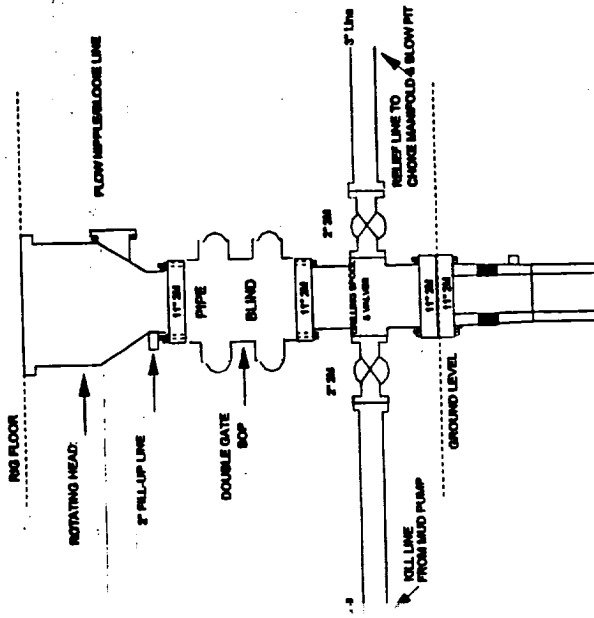

Drilling Engineer


Date

Burlington Resources

Drilling Rig

2000 psi System

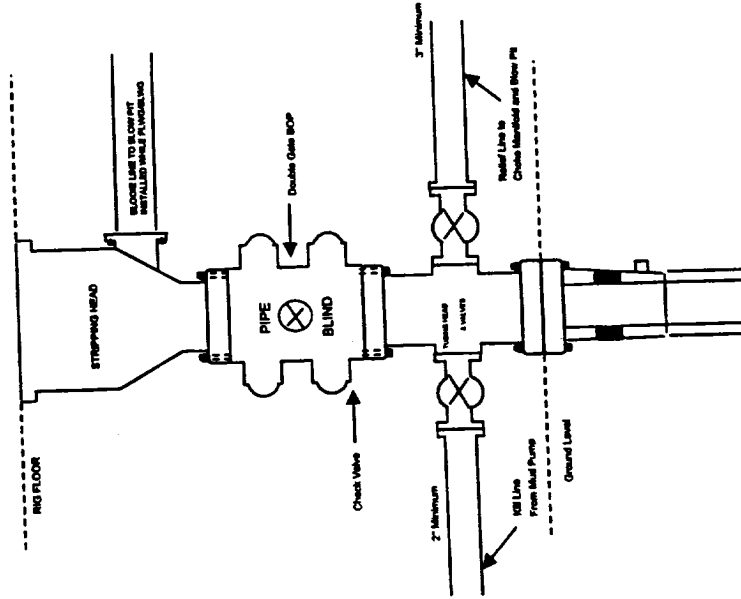


BOP Installation from Surface Casing Point to Total Depth. 1 1/2" Bore 10" Nominal, 2000 psi working pressure double gate BOP to be equipped with blind rams and pipe rams. A stripping head on top of ram preventers. All BOP equipment is 2,000 psi working pressure

Figure #1

BURLINGTON RESOURCES

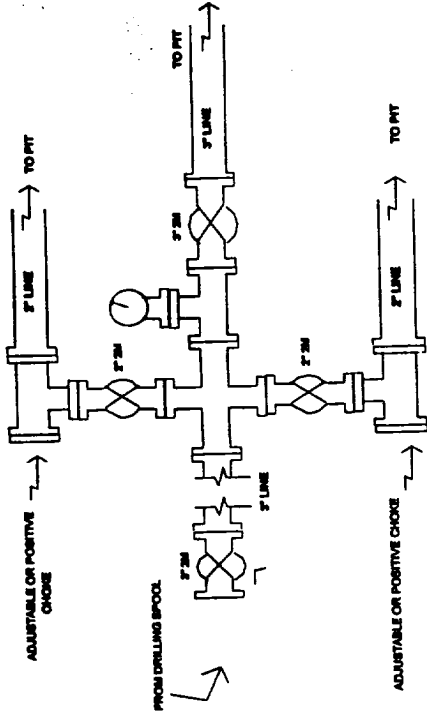
Completion/Workover Rig
BOP Configuration
2,000 psi System



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 equipment is 2000 psi working pressure or greater.

Figure #2

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