

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2005 OCT 12 PM 1 45

1a. Type of Work
DRILL

RECEIVED
070 FARMINGTON NM

5. Lease Number
NMNM-2995
Unit Reporting Number

1b. Type of Well
GAS

6. If Indian, All. or Tribe

2. Operator
BURLINGTON
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
Burnt Mesa
9. Well Number
#2B

4. Location of Well
250' FSL, 240' FWL

10. Field, Pool, Wildcat
Blanco Mesaverde/Basin Dakota

Latitude 36° 56.7079'N, Longitude 107° 32.6441'W

11. Sec., Twn, Rge, Mer. (NMPM)
M Sec. 26, T32N, R07W
API # 30-045-33376

14. Distance in Miles from Nearest Town
20 miles to intersection Hwy 172 & 151 in Ignacio

12. County
San Juan

13. State
NM

15. Distance from Proposed Location to Nearest Property or Lease Line
240'

16. Acres in Lease

17. Acres Assigned to Well
S/2 320 acres

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease
1064'

19. Proposed Depth
8345'

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6743' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Goni Clark
Regulatory Specialist

10/12/05
Date

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 NEEDED UNDER ORDER R-8768F.

NMOCDD

HOLD C104 FOR

NSL

1570.3

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- 33376

5. Indicate Type of Lease

STATE ☐FEE ☐

6. State Oil & Gas Lease No.

NMNM-2995

7. Lease Name or Unit Agreement Name

Burnt Mesa

8. Well Number

2B

9. OGRID Number

14538

10. Pool name or Wildcat

Blanco Mesaverde/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 M : 250 feet from the South line and 240 feet from the West line
Section 26 Township 32N Range 7W NMPM County San Juan

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
6743'

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:

na

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 Pit ☒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.

REVISED

Burlington Resources proposes to construct a new drilling pit and an associated blow/flare pit. Based on Burlington's interpretation of the OCD's risk ranking criteria, the new drilling pit and blow/flare pit will be an unlined pit as detailed in Burlington's Drilling / Workover Pit Construction / Operation Procedures dated April 26, 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

Regulatory Specialist

DATE

9/20/2005

Type or print name

Joni Clark

E-mail address:

jclark@br-inc.com

Telephone No.

505-326-9700

For State Use Only

APPROVED BY

TITLE

DEPUTY OIL & GAS INSPECTOR, DIST. III

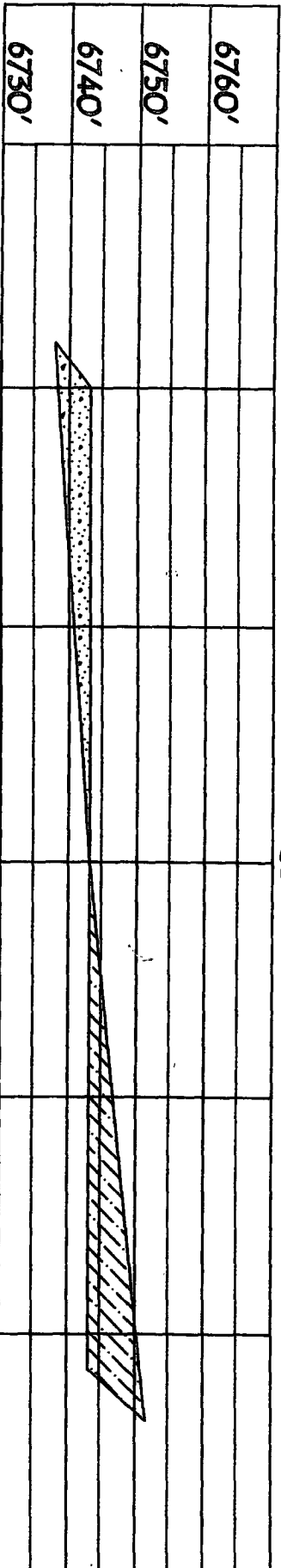
DATE

NOV 14 2005

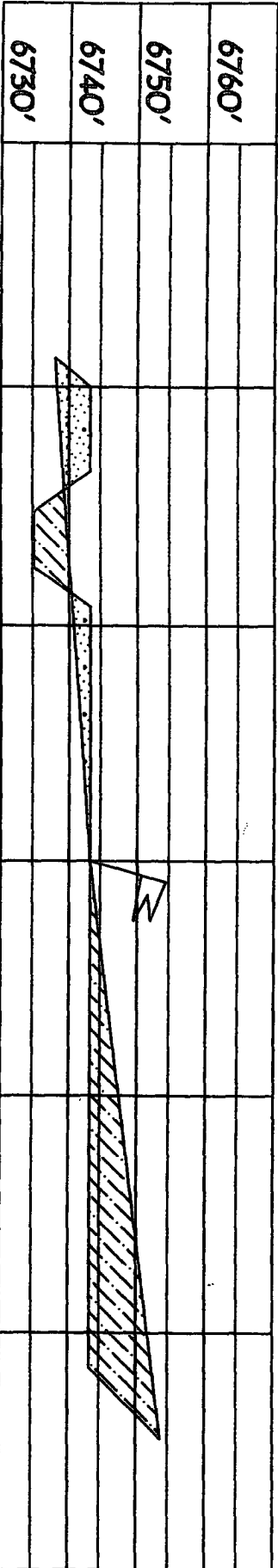
Conditions of Approval (if any):

BURLINGTON RESOURCES OIL & GAS COMPANY LP
BURNT MESA 2B, 250' FSL & 240' FWL
SECTION 26, T32 N, R7W, NMPM, SAN JUAN COUNTY, NM
GROUND ELEVATION: 6743', DATE: AUGUST 15, 2005

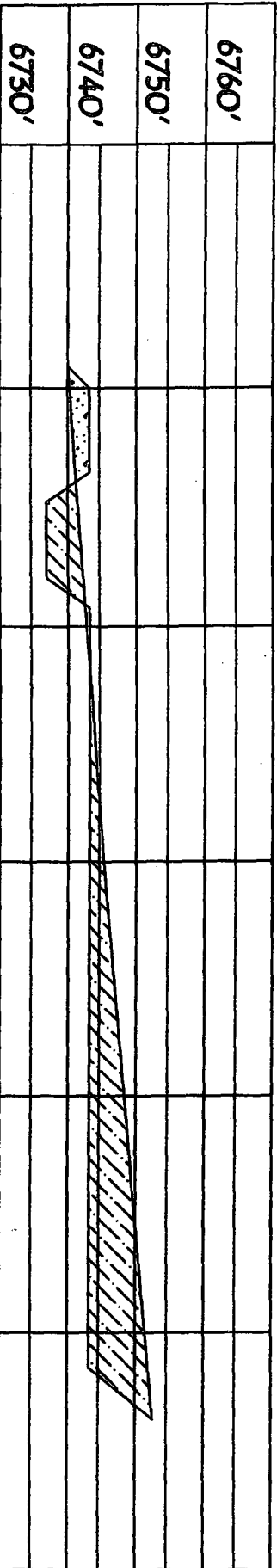
ELEV. A'-A



ELEV. B'-B



ELEV. C'-C



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: BURNT MESA 2B
Location: 250' FSL & 240' FWL, Section 26 T32N R07W
San Juan County, New Mexico
Formation: Blanco Mesaverde/Basin Dakota
Elevation: 6743' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	2497'	
Ojo Alamo	2497'	2627'	aquifer
Kirtland	2627'	3390'	gas
Fruitland Coal	3390'	3662'	gas
Pictured Cliffs	3662'	3830'	gas
Lewis	3830'	4512'	
Huerfanito Bentonite	4512'		
Chacra	4939'	5742'	gas
Massive Cliff House	5742'	5801'	gas
Menefee	5801'	6013'	gas
Massive Point Lookout	6013'	6455'	gas
Mancos Shale	6455'	7325'	
Upper Gallup	7325'	8058'	gas
Greenhorn	8058'	8107'	gas
Graneros	8107'	8223'	gas
Paguate	8223'	8233'	gas
Upper Cubero	8233'	8274'	gas
Lower Cubero	8274'	8345'	gas
Encinal	8345'	8345'	gas
Total Depth:	8345'		gas

Logging Program:

Mud Logs/Coring/DST

Mud logs - from 7858' (about 200' above Greenhorn top) to TD
Coring - none
DST - none
Open hole - none
Cased hole - Gamma Ray, CBL - surface to TD

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
120 - 3930'	LSND	8.4 - 9.0	30 - 60	no control
3930 - 8345'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

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' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3930'	7"	20/23#	J-55
6 1/4"	0' - 8345'	4 1/2"	10.5#	J-55

Tubing Program:

<u>Depth Interval</u>	<u>Csg.Size</u>	<u>Wt.</u>	<u>Grade</u>
0' - 8345'	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 -

9 5/8" x 7" 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:

9 5/8" surface casing -

Pre-Set Drilled - Cement with 23 sx Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (38 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 88 sx Type III cement with 0.25 pps Celloflake, 2% CaCl. (113 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. 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. 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 with 345 sacks Premium Lite cement with 3% calcium chloride, 0.25 pps Celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. Tail w/90 sacks Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss (124 cu ft 50% excess to circulate to surface). WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage -

Stage collar set 300' above the top of the Fruitland. First stage: Lead w/158 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss. Tail w/90 Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss. Second stage: 187 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (124 cu ft - 50% 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 @ 1276'. Two turbolating centralizers at the base of the Ojo Alamo @ 1276'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Casing -

Pump 282 sxs Premium Lite HS FM w/0.25 pps celloflake, 0.3% CD-32, 6.25 pps LCM-1, 1% fluid loss, 6% gel, 7 pps CSE (384 cu.ft., 30% excess to achieve 100' overlap in 4-1/2" x 7" annulus). WOC a minimum of 18 hrs prior to completing.

Cementing: Continued

Cement float collar stacked on top of float shoe.

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):

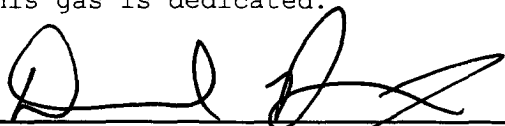
The following equipment will be operational while air/mist drilling:

- 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 Mesa Verde and Dakota formations will be completed and commingled.
- 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	2000 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 south half of Section 26 is dedicated to the Mesa Verde formation and Dakota formation.
- This gas is dedicated.



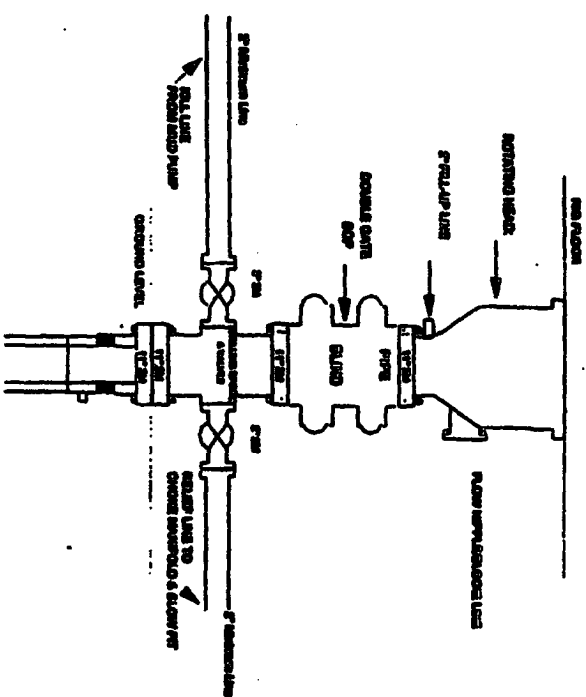
Drilling Engineer

9/19/05

Date

Burlington Resources

Drilling Rig 2000 psi System



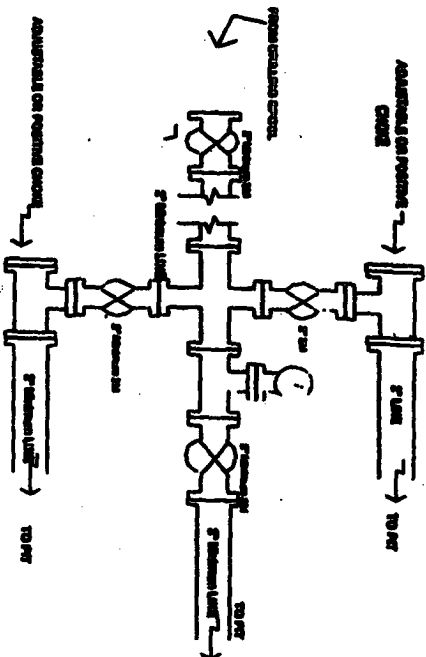
BOP Installation from Burlington Casting Poles to Total Depth, 11\"/>

Figure #1

4-20-01

BURLINGTON RESOURCES

Drilling Rig Cable Manifold Configuration 2000 psi System

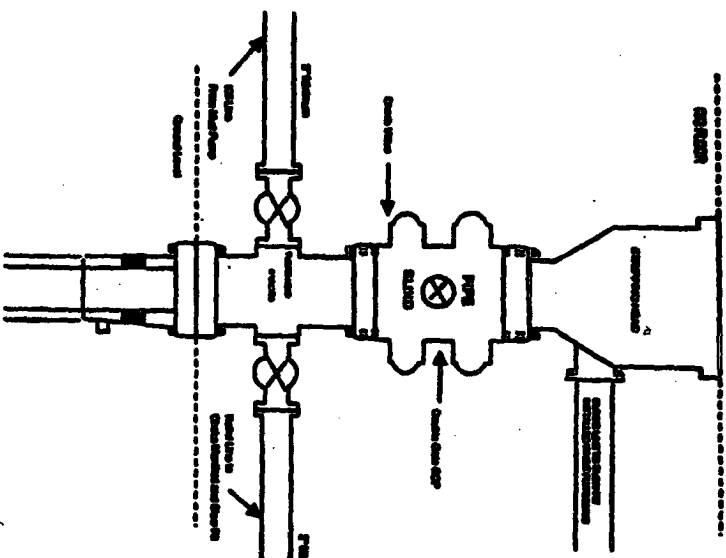


Cable manifold installation from Burlington Casting Poles to Total Depth, 2,000psi working pressure equipment with two cables.

Figure #3

4-20-01

Completion/Workover Rig BOP Configuration 2000 psi System



Minimum BOP Installation for all Completion/Workover Operations, 7-11/8\"/>

Figure #2