**UNITED STATES**
**DEPARTMENT OF THE INTERIOR**
**BUREAU OF LAND MANAGEMENT**

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2005 JAN 12 PM 1 41

RECEIVED
070 FARMINGTON NM

| | | |
|---|---|---|
| 1a. | **Type of Work**<br>DRILL | **5. Lease Number**<br>SF-079520-A<br>**Unit Reporting Number** |
| 1b. | **Type of Well**<br>GAS | **6. If Indian, All. or Tribe** |
| 2. | **Operator**<br>BURLINGTON RESOURCES Oil & Gas Company | **7. Unit Agreement Name**<br>San Juan 28-5 |
| 3. | **Address & Phone No. of Operator**<br>PO Box 4289, Farmington, NM 87499<br>(505) 326-9700 | **8. Farm or Lease Name**<br>San Juan 28-5<br>**9. Well Number**<br>#81P |
| 4. | **Location of Well**<br>595' FSL, 995' FWL Surface location<br>2200' FSL, 2000' FWL Bottom hole location<br>Latitude 36° 37.5975'N, Longitude 107° 20.0159' W Surface location<br>Latitude 36° 37.8615'N, Longitude 107° 19.8095' W Bottom hole location | **10. Field, Pool, Wildcat**<br>Blanco Mesaverde/ Basin Dakota<br>**11. Sec., Twn, Rge, Mer. (NMPM)**<br>Sec. 26, T28N, R05W<br>**API # 30-039-** 29420 |
| 14. | **Distance in Miles from Nearest Town**<br>Gobernador 7 miles | **12. County**<br>Rio Arriba<br>**13. State**<br>NM |
| 15. | **Distance from Proposed Location to Nearest Property or Lease Line**<br>595' | |
| 16. | **Acres in Lease** | **17. Acres Assigned to Well**<br>S/2 320 |
| 18. | **Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease**<br>20' | |
| 19. | **Proposed Depth**<br>8308' | **20. Rotary or Cable Tools**<br>Rotary |
| 21. | **Elevations (DF, FT, GR, Etc.)**<br>6753' GR | **22. Approx. Date Work will Start** |
| 23. | **Proposed Casing and Cementing Program**<br>See Operations Plan attached | |
| 24. | **Authorized by:** Joni Clark<br>Regulatory/Compliance Specialist | 1-12-05<br>Date |

JUN 2005
OIL CONS. DIV.
DIST. 3

**PERMIT NO.** _____ **APPROVAL DATE** _____

**APPROVED BY** _____ **TITLE** AFM **DATE** 6-23-05

**Archaeological Report attached**
**Threatened and Endangered Species Report attached**
HOLD C104 FOR Directional Survey

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 COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

NMOCD

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

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 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000

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

☐ AMENDED REPORT

2005 JAN 12 PM 1 17
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070 FARMINGTON NM

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| [1] API Number | [2] Pool Code | [3] Pool Name |
|---|---|---|
| 30-039-29420 | 71599/72319 | Basin Dakota/Blanco Mesaverde |

| [4] Property Code | [5] Property Name | [6] Well Number |
|---|---|---|
| ~~14538~~ 7460 | SAN JUAN 28-5 UNIT | 81P |

| [7] OGRID No. | [8] Operator Name | [9] Elevation |
|---|---|---|
| 14538 | BURLINGTON RESOURCES OIL AND GAS COMPANY LP | 6753' |

## [10] Surface Location

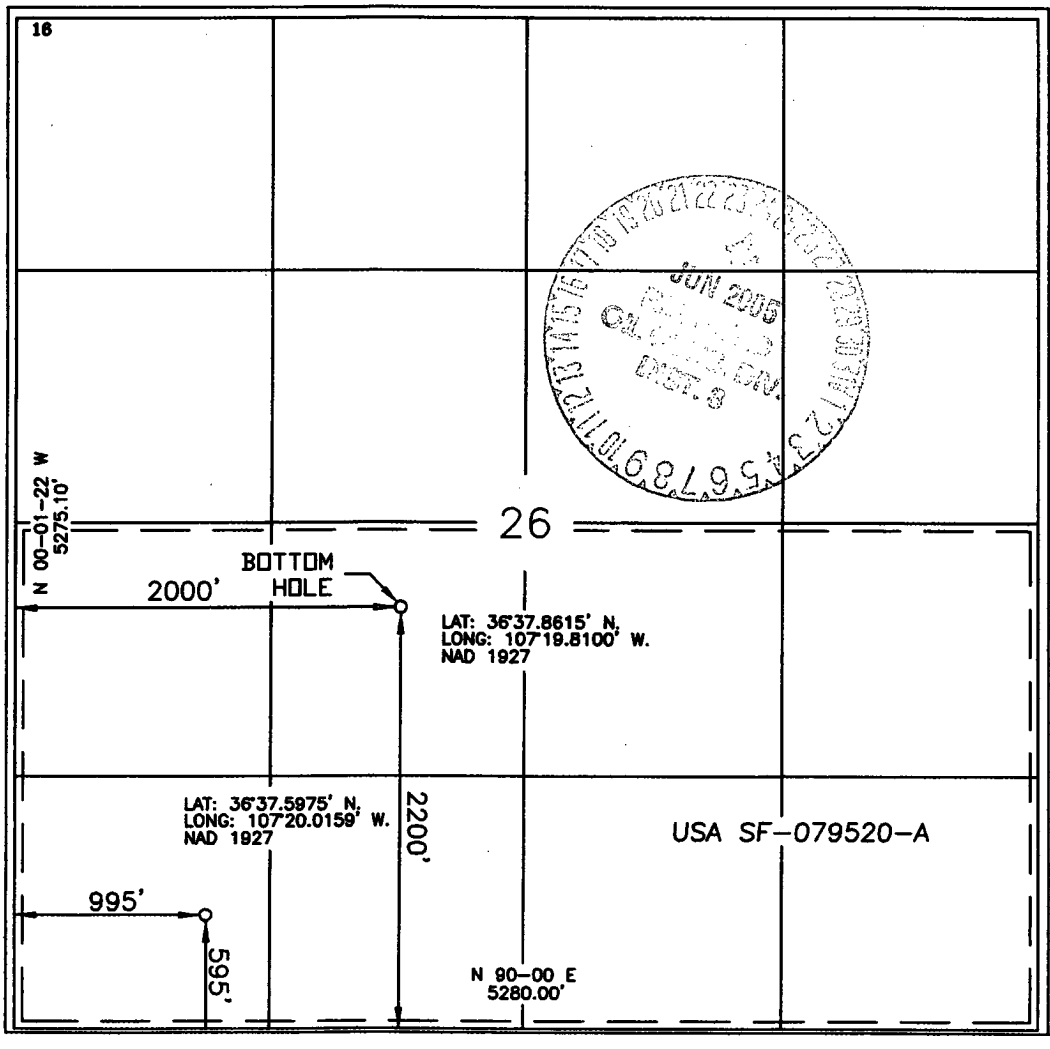
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| M | 26 | 28-N | 5-W | | 595' | SOUTH | 995' | WEST | RIO ARRIBA |

## [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 |
|---|---|---|---|---|---|---|---|---|---|
| K | 26 | 28-N | 5-W | | 2200' | SOUTH | 2000' | WEST | RIO ARRIBA |

| [12] Dedicated Acres | [13] Joint or Infill | [14] Consolidation Code | [15] Order No. |
|---|---|---|---|
| S/2 320 | | | |

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*

Joni Clark
Signature

Joni Clark
Printed Name

Regulatory Specialist
Title

1-12-04
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

Signature and Seal of Professional Surveyor

GLEN W. RUSSELL
NEW MEXICO
15703
LICENSED PROFESSIONAL SURVEYOR

Certificate Number 15703

Submit 3 Copies To Appropriate District Office

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

State of New Mexico
Energy, Minerals and Natural Resources

**OIL CONSERVATION DIVISION**
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
May 27, 2004

WELL API NO. 30-039-

5. Indicate Type of Lease STATE ☐ FEE ☐

6. State Oil & Gas Lease No. SF-079520A

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.)

7. Lease Name or Unit Agreement Name: San Juan 28-5 Unit

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

8. Well Number: 81P

2. Name of Operator: BURLINGTON RESOURCES OIL & GAS COMPANY LP

9. OGRID Number: 14538

3. Address of Operator: 3401 E. 30TH STREET, FARMINGTON, NM 87402

10. Pool name or Wildcat: Blanco Mesaverde/Basin Dakota

4. Well Location
Unit Letter K : 2200 feet from the South line and 2000 feet from the West line
Section 26 Township 28N Range 5W NMPM County Rio Arriba

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: | | | | SUBSEQUENT REPORT OF: | | | |
|---|---|---|---|---|---|---|---|
| PERFORM REMEDIAL WORK | ☐ | PLUG AND ABANDON | ☐ | REMEDIAL WORK | ☐ | ALTERING CASING | ☐ |
| TEMPORARILY ABANDON | ☐ | CHANGE PLANS | ☐ | COMMENCE DRILLING OPNS. | ☐ | P AND A | ☐ |
| PULL OR ALTER CASING | ☐ | MULTIPLE COMPL | ☐ | 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 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 that 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 1/12/2005

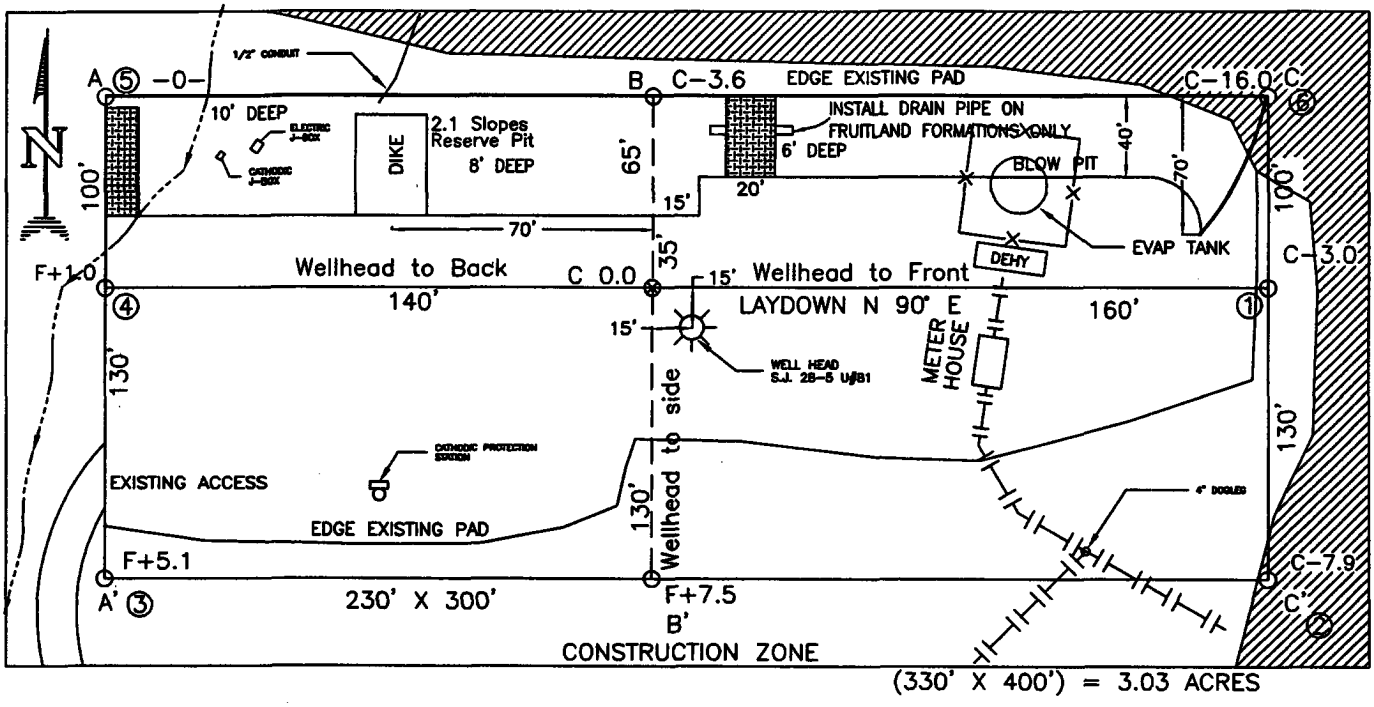
Type or print name Joni Clark E-mail address: jclark@br-inc.com Telephone No. 326-9700

**For State Use Only**

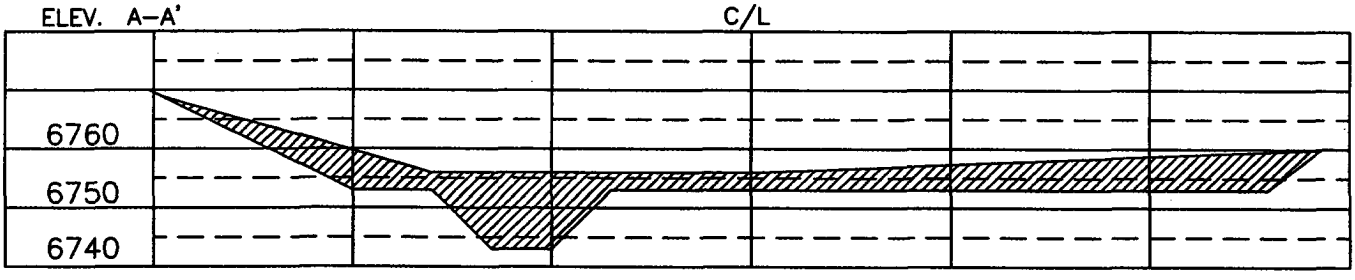
APPPROVED BY TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE JUN 24 2005

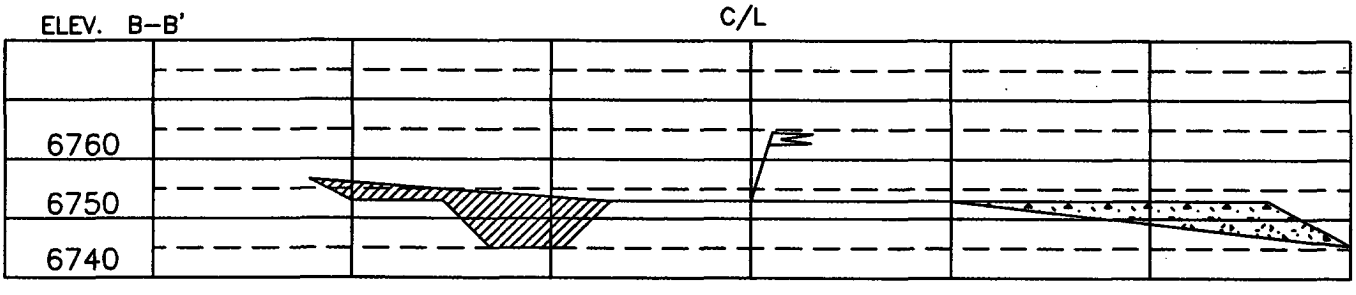
Conditions of Approval (if any):

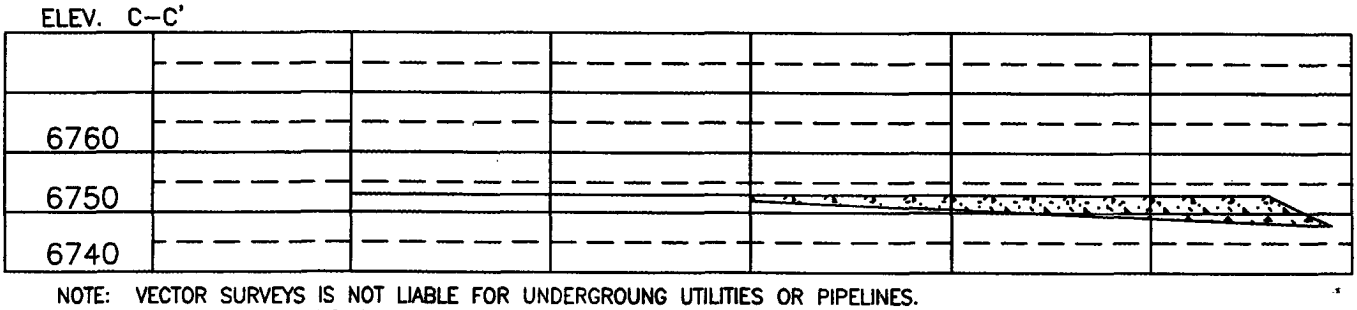
# BURLINGTON RESOURCES OIL & GAS COMPANY LP
# SAN JUAN 28-5 UNIT #81P, 595' FSL & 995' FWL
# SECTION 26, T-28-N, R-5-W, NMPM, RIO ARRIBA COUNTY, NM
# GROUND ELEVATION: 6753', DATE: FEBRUARY 11, 2004




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 UNDERGROUNG 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:*** San Juan 28-5 Unit #81P
***Location:*** 595'FSL, 995' FWL, Section 26, T-28-N, R-5-W surface location
2200'FSL, 2000' FWL, Section 26, T-28-N, R-5-W bottom hole location
Rio Arriba County, New Mexico
Latitude 36° 37.5495'N, Longitude 107° 20.0192'W surface Location
Latitude 36° 37.8615'N, Longitude 107° 19.8095'W bottom hole Location
***Formation:*** Blanco Mesa Verde/Basin Dakota
***Elevation:*** 6733'GL

| ***Formation Tops:*** | ***TMD Top*** | ***TVD Top*** | ***TMD Bottom*** | ***Contents*** |
|---|---|---|---|---|
| Surface | San Jose | | 3034' | |
| Ojo Alamo | 3034' | 2969' | 3245' | aquifer |
| Kirtland | 3245' | 3151' | 3501' | gas |
| Fruitland | 3501' | 3426' | 3710' | |
| Pictured Cliffs | 3710' | 3626' | 3922' | gas |
| Lewis | 3922' | 3830' | 4350' | gas |
| Huerfanito Bentonite | 4350' | 4242' | 4715' | gas |
| Chacra | 4715' | 4593' | 5346' | gas |
| UpperCliff House | 5346' | 5200' | 5560' | |
| Massive Cliff House | 5560' | 5406' | 5628' | |
| Menefee | 5628' | 5470' | 5963' | gas |
| Point Lookout | 5963' | 5792' | 6506' | gas |
| Mancos | 6506' | 6314' | 7234' | gas |
| Gallup | 7234' | 7014' | 7954' | gas |
| Greenhorn | 7954' | 7707' | 8024' | as |
| Graneros | 8024' | 7774' | 8072' | gas |
| Dakota | 8072' | 7820' | 8164' | gas |
| Upper Cubero | 8164' | 7909' | 8223' | |
| Lower Cubero | 8223' | 7965' | 8283' | |
| Oak Canyon | 8283' | 8023' | 8306' | |
| Encinal | 8310' | 8045' | | |
| **TD** | **8308' MD** | **8043' TVD** | | |

***Logging Program:***
Cased Hole - CBL-GR-TD to surface

***Mud Program:***

| Interval | Type | Weight | Vis. | Fluid Loss |
|---|---|---|---|---|
| 0- 500' | Spud | 8.4-9.0 | 40-50 | no control |
| 500- 8308' | Non-dispersed | 8.4-9.0 | 30-60 | less than 8 |

***Drilling:***

***Surface Hole:***
Drill to surface casing point of 500' and set 9 5/8" casing.

***Production Hole:***

Mud drill to kick off point of 1300'. At this point the well will be directionally drilled by building 4.03 degrees per 100' with an azimuth of 58 degrees. The end of the build will be at a TVD of 1695', a TMD of 1700', hd of 56' and an angle of 16.12 degrees. This angle and azimuth will be held to a total depth of 8043' TVD and 8308' MD

***Materials:***

***Casing program:***

| Hole Size | Interval | | Size | Weight | Vis. |
|---|---|---|---|---|---|
| | **TMD** | **TVD** | | | |
| 12 ¼" | 500' | 500' | 9 5/8" | 32.3# | H-40 |
| 7 7/8" | 8308' | 8043' | 4 ½" | 10.5, 11.6# | J-55,L-80 |

***Tubing Program:***

| Hole Size | Interval TMD | Interval TVD | Size | Weight | Vis. |
|---|---|---|---|---|---|
| 2 3/8" | 0' | 8308' | 2 3/8" | 4.7# | J-55 |

**Wellhead Equipment**

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

***Cementing:***

9 5/8" surface casing conventionally drilled -
Cement with 367 sacks Type III cement with 0.25 pps Celloflake, 3% calcium chloride. (470 cu ft-200% access, 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 ½" production casing - Lead w/1285 sxs Premium Lite HS FM cement w/3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% SMS. Tail w/90 sxs Type III cmt w/1% calcium chloride, 0.25 pps celloflake, 0.2% fluid loss (2862 cu ft, 50% excess to circulate to surface). If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC.

4 ½" production casing alternative slurry- stage collar @ 5913' TMD'. First stage: pump 325 sxs Premium Lite HS FM w/ 3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% SMS. Tail with 90 sxs Type III cmt w/1% calcium chloride, 0.25 pps celloflake, 0.2% fluid loss. Second stage: pump 960 sxs Premium Lite w/3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% SMS (2862 cu ft of slurry, 50% excess).

***BOP and Tests:***

Surface to production TD - 11", 2000 psi double gate BOP stack (Reference Figure #1).
Prior to drilling out surface casing, test rams and casing to 600 psi for 30 minutes.

Surface to Total Depth - choke manifold (Reference Figure #2).

Pipe rams will be actuated at least once each day and blind rams will be actuated once each trip to test proper functioning. A Kelly cock valve and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

***Additional Information:***

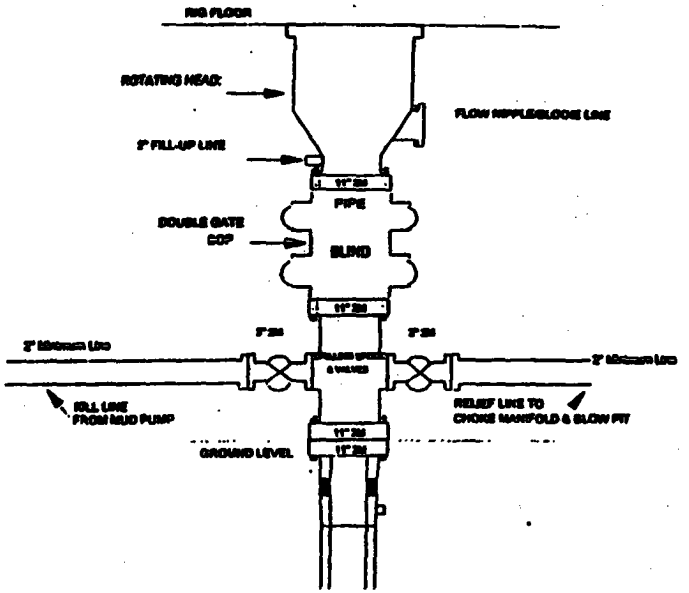
- This gas is dedicated to the south half of Section 26 for the Mesaverde and Dakota formation.
- The gas is dedicated.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.

Jennifer McCarthy
Drilling Engineer

1-11-05
Date

## Burlington Resources

### Drilling Rig
### 2000 psi System



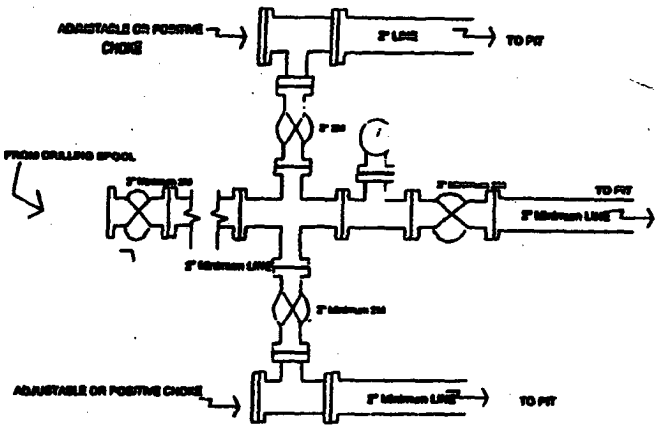

BOP installation from Surface Casing Point to Total Depth. 11" Bore 10" Nominal, 2000 psi working pressure double gate BOP to be equipped with blind rams and pipe rams. A 500 psi rotating head on top of ram preventers. All BOP equipment is 2,000 psi working pressure

Figure #1

4-20-01

## BURLINGTON RESOURCES

### Drilling Rig
### Choke Manifold Configuration
### 2000 psi System



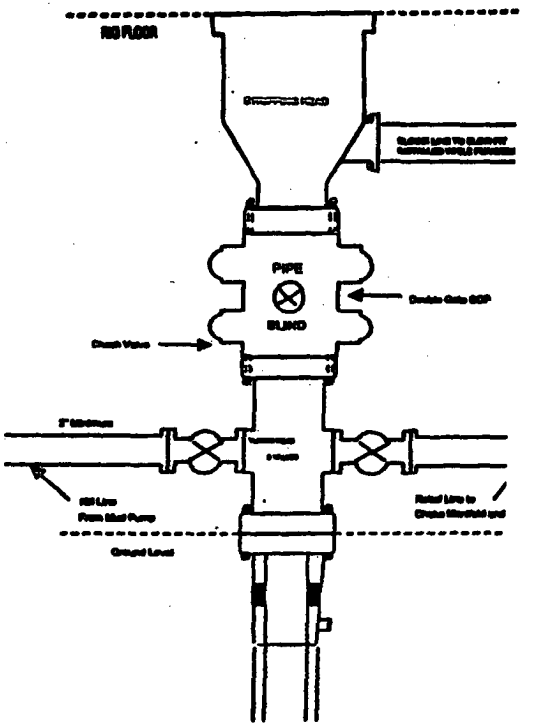

Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

4-20-01

## BURLINGTON RESOURCES

### Completion/Workover Rig
### BOP Configuration
### 2,000 psi System




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

Figure #2