

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2006 MAY 1 AM 10 29

1a. Type of Work  
DRILL

5. Lease Number

SF-079050-~~8~~

Unit Reporting Number

MV-8910010510

DK-891001051B

6. If Indian, All. or Tribe

1b. Type of Well  
GAS

2. Operator  
**BURLINGTON**

RESOURCES Oil & Gas Company

7. Unit Agreement Name

San Juan 28-6 Unit

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499

(505) 326-9700

8. Farm or Lease Name

San Juan 28-6 Unit

9. Well Number

#148N

4. Location of Well

1850' FN, 1630' FEL surface

2400' FNL, 560' FEL bottom

Latitude 36° 38.0661'N, Longitude 107° 28.1056'W

Latitude 36° 37.9761'N, Longitude 107° 27.8871'W

10. Field, Pool, Wildcat

Blanco Mesaverde/Basin Dakota

11. Sec., Twn, Rge, Mer. (NMPM)

Sec. 28, T28N, R06W

12. API # 30-039-29890

13. Distance in Miles from Nearest Town

31 Miles To Blanco Post Office

14. County

Rio Arriba

13. State

NM

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

1630'

16. Acres in Lease

17. Acres Assigned to Well

320 acres E/2

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

52'

19. Proposed Depth

7653'

20. Rotary or Cable Tools

Rotary

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

6402' GR, 6416' KB

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program

See Operations Plan attached

24. Authorized by:

Regulatory Analyst

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.

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

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

HOLD C104 FOR directional survey

NMOC

DISTRICT I  
1625 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. 2006 MAY 1 AM 10 27  
Santa Fe, NM 87505

Form C-102

Revised June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

RECEIVED

☐ AMENDED REPORT

OTO FARMINGTON NM

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039-29890	<sup>2</sup> Pool Code 72319/71599	<sup>3</sup> Pool Name Blanco Mesaverde/Basin Dakota
<sup>4</sup> Property Code 7462	<sup>5</sup> Property Name SAN JUAN 28-6 UNIT	<sup>6</sup> Well Number 148N
<sup>7</sup> GRID No. 14538	<sup>8</sup> Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	<sup>9</sup> Elevation 6402'

<sup>10</sup> Surface Location

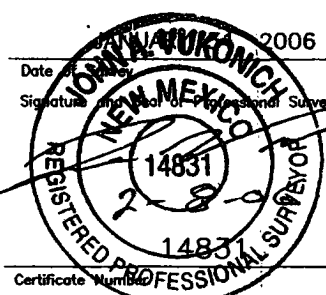
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	28	28-N	6-W		1850	NORTH	1630	EAST	RIO ARRIBA

<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
H	28	28-N	6-W		2400	NORTH	560	EAST	RIO ARRIBA

<sup>12</sup> Dedicated Acres 320 E/2	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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	FD 2 1/2" BC. U.S.G.L.O. 1914  LAT. 36.63444' N. (NAD 83) LONG. 107.46903' W. (NAD 83)  LAT. 36°38.0661' N. (NAD 27) LONG. 107°28.1056 W. (NAD 27)  1850'  1630' USA SF-079050-A ° B.H.L.	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  <i>Philana Thompson</i> Signature  Philana Thompson Printed Name  Regulatory Compl. Assoc. III Title  2/15/06 Date
28	BOTTOM HOLE LAT. 36.63294' N. (NAD 83) LONG. 107.46539' W. (NAD 83)  LAT. 36°37.9761' N. (NAD 27) LONG. 107°27.8871 W. (NAD 27)	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 of Professional Surveyor Certificate Number

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

**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 G : 1850 feet from the North line and 1630 feet from the East line  
Section 28 Township 28N Range 6W 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 >50 Distance from nearest fresh water well >1000 Distance from nearest surface water 7200  
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 ☐  
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.

New Drill, Lined:

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 Philana Thompson TITLE Regulatory Assistant Iii DATE 3/13/2006

Type or print name Philana Thompson E-mail address: pthompson@br-inc.com Telephone No. 505-326-9530  
**For State Use Only**

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 3 DATE MAY 30 2006  
Conditions of Approval (if any):

# BURLINGTON RESOURCES OIL & GAS COMPANY LP

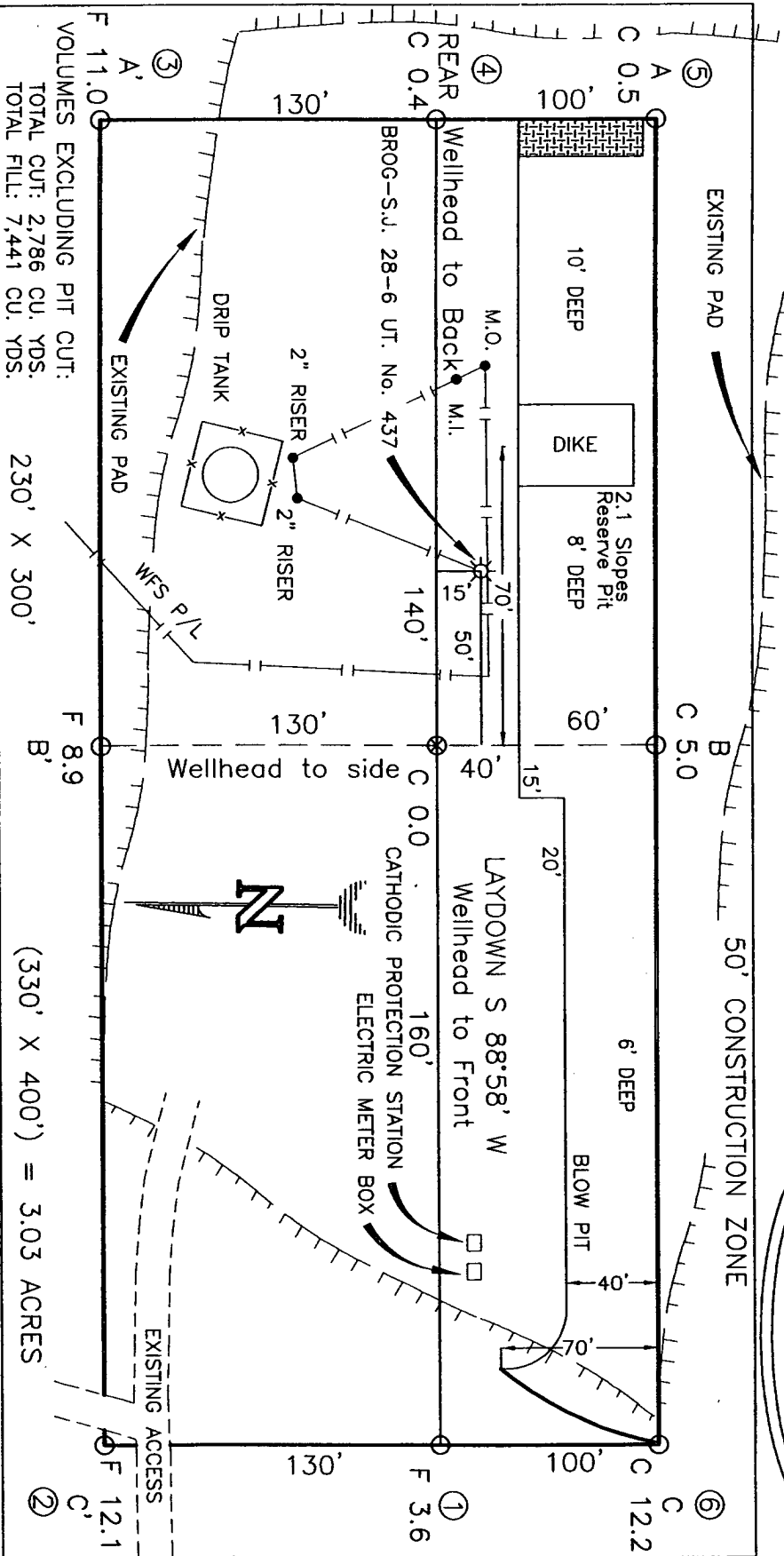
SAN JUAN 28-6 UNIT No.148N, 1850 FNL 1630 FEL

SECTION 28, T-28-N, R-6-W, N.M.P.M., RIO ARriba COUNTY, NEW MEXICO

GROUND ELEVATION: 6402, DATE: JANUARY 31, 2006

NAD 83  
LAT. = 36.63444° N.  
LONG. = 107.46903° W

NAD 27  
LAT. = 36°38.0661' N.  
LONG. = 107°28.1056' W



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: ESTIMATED VOLUMES CALCULATED BY AVERAGE END AREA AT CROSS-SECTION SHOWN

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	DATE
REMARK LOCATION	2/02/06	REV.	
<b>Daggett Enterprises, Inc.</b> Surveying and Oil Field Services P.O. Box 15068 • Farmington, NM 87401 Phone (505) 326-1772 • Fax (505) 326-6019 NEW MEXICO L.S. 14831			
DRAWN BY: B.L.	DATE: 04/05/05	CHECKED BY: B.L.	
NO. 88543			

# BURLINGTON RESOURCES OIL & GAS COMPANY LP

SAN JUAN 28-6 UNIT No.148N, 1850 FNL 1630 FEL

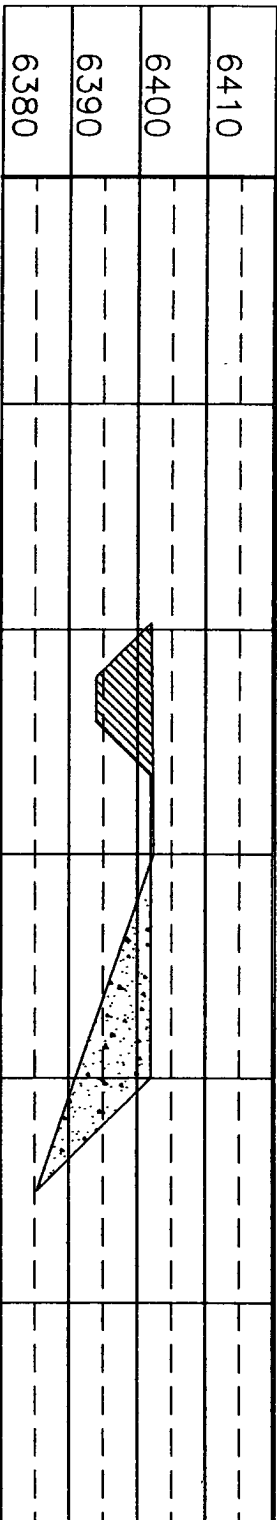
SECTION 28, T-28-N, R-6-W, N.M.P.M., RIO ARRIBA COUNTY, NEW MEXICO

GROUND ELEVATION: 6402, DATE: JANUARY 31, 2006

NAD 83  
LAT. = 36.63444° N.  
LONG. = 107.46903° W  
NAD 27  
LAT. = 36°38.0661' N.  
LONG. = 107°28.1056' W

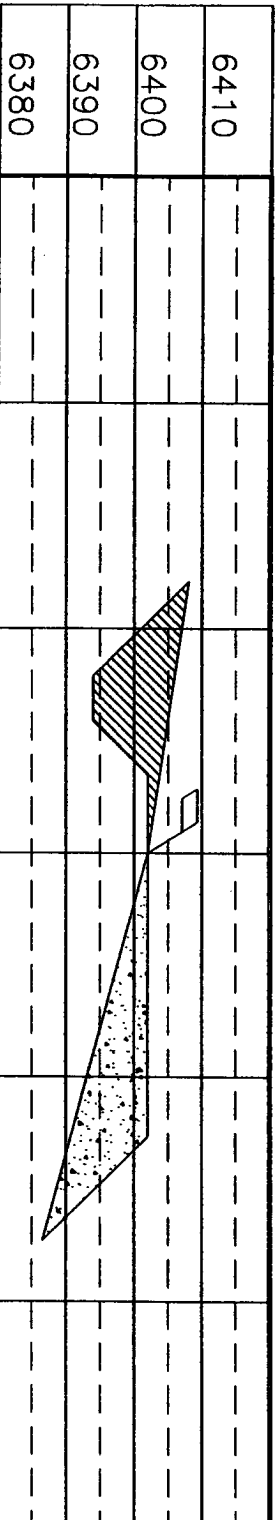
ELEV. A-A'

C/L



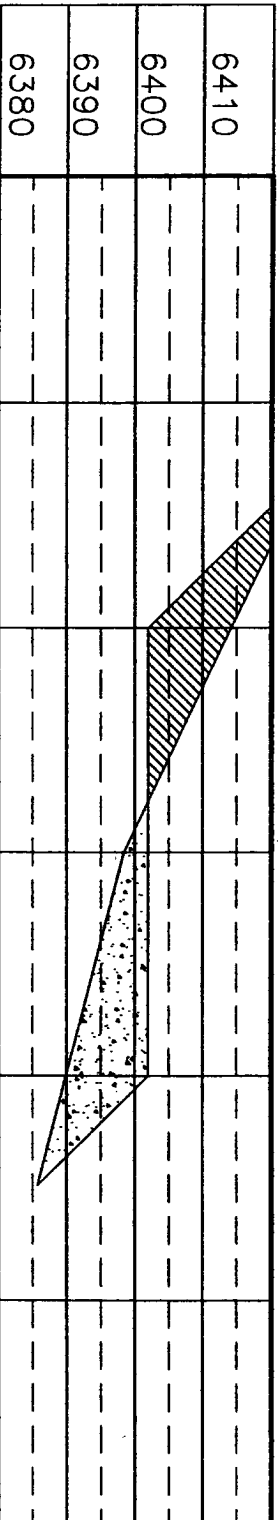
ELEV. B-B'

C/L




ELEV. C-C'

C/L



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	REVISED BY
RESTAKE LOCATION	2/02/06	G.V.
 <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. 14831</p>		
DRAWN BY: B.L.	CHECKED: BRG43CFB	DATE: 04/05/05
ROW# BRG43		

# SAN JUAN 28-6 UNIT 148N OPERATIONS PLAN

**Well Name:** SAN JUAN 28-6 UNIT 148N

**Objective:** Blanco Mesa Verde/Basin Dakota

**Location:** Rio Arriba NM

**Elevation:** 6402'

**Surface Coordinates/Footages**

**Bottom Hole Coordinates/Footages**

T - 28 N R - 6 W Sec.: 28  
1850' FNL 1630' FEL  
Latitude: 36° 38.0661' N  
Longitude: 107° 28.1056' W

T - 28 N R - 6 W Sec.: 28  
2400' FNL 560' FEL  
Latitude: 36° 37.9761' N  
Longitude: 107° 27.8871' W

<b><u>Formation</u></b>	<b><u>Top (TMD)</u></b>	<b><u>Top (TVD)</u></b>	<b><u>Contents</u></b>
Surface	San Jose	San Jose	
Ojo Alamo	2607'	2493'	aquifer
Kirtland	2674'	2556'	gas
Fruitland	3188'	3036'	gas
Pictured Cliffs	3364'	3201'	gas
Lewis	3536'	3361'	gas
Huerfano Bentonite	3998'	3798'	gas
Chacra	4366'	4161'	gas
Upper Cliff House	5088'	4883'	gas
Massive Cliff House	5098'	4893'	gas
Menefee	5238'	5033'	gas
Massive Point Lookout	5591'	5386'	gas
Mancos Shale	6101'	5896'	gas
Upper Gallup	6799'	6594'	gas
Greenhorn	7535'	7330'	gas
Graneros	7598'	7393'	gas
Two Wells	7629'	7424'	gas
Upper Cubero	7740'	7535'	gas
Lower Cubero	7776'	7571'	gas
Oak Canyon	7856'	7651'	gas
Encinal	7858'	7653'	gas
<b>Total Depth:</b>	<b>7858'</b>	<b>7653'</b>	gas

**Logging Program:** Cased Hole: CBL-GR  
Open Hole: None

<b><u>Mud Program:</u></b>	<b><u>Interval (TMD)</u></b>	<b><u>Type</u></b>	<b><u>Weight (ppg)</u></b>	<b><u>Vis. (s/qt)</u></b>	<b><u>Fluid Loss (cc/30min)</u></b>
	0' - 320'	Spud	8.4-9.0	40-50	No control
	320' - 4461'	Non-dispersed	8.4-9.0	30-60	Less than 8
	4461' - 7858'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

<b><u>Casing program:</u></b>	<b><u>Interval (TMD)</u></b>	<b><u>Hole Size</u></b>	<b><u>Casing Size</u></b>	<b><u>Weight</u></b>	<b><u>Grade</u></b>
	0' - 320'	12 1/4"	9 5/8"	32.3#	H-40
	320' - 4461'	8 3/4"	7"	23.0#	L-80
	4461' - 7858'	6 1/4"	4 1/2"	11.6#	L-80

<b><u>Tubing program:</u></b>	<b><u>Interval (TMD)</u></b>	<b><u>Hole Size</u></b>	<b><u>Casing Size</u></b>	<b><u>Weight</u></b>	<b><u>Grade</u></b>
	0' - 7858'	Cased	2 3/8"	4.7#	J-55

**Wellhead Equipment**

9 5/8" x 7" X 4 1/2" x 2 3/8" - 11" (2000 psi) wellhead assembly

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

**Surface**

Drill to surface casing point of 320' and set 9.625" casing.

**Intermediate**

Mud drill to kick off point of 400'. At this point the well will be directionally drilled by building 3 degrees per 100' with an azimuth of 116.99 degrees. The end of the build will be at a TVD of 1079', a TMD of 1094', a reach of 124', and an inclination of 20.81 degrees. This angle and azimuth will be held to a TVD of 3582', a TMD of 3772', and a reach of 1074'. At this point the well will be drilled with a drop of 3 degrees per 100'. The end of the drop will be at a TVD of 4261', a TMD of 4461', a reach of 1070', and an angle of 0.0 degrees. 7" casing will be set at this point.

**Production**

From the shoe of the intermediate string, the well will be drilled vertically with an air hammer to a TVD of 7653' (TMD of 7858'). 4.5" casing will be set at this point.

**Cementing**

9.625" surface casing conventionally drilled: **200%** excess cement to bring cement to surface.

Run 301 cu.ft. (235 sks) Type III cement with 3% CaCl<sub>2</sub> and 1/4 pps celloflake (1.28 sks/ cu.ft.). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60° 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.

7" intermediate casing: **50%** excess cement to bring cement to surface.

Lead with 882 cu.ft. (414 sks) Premium Lite w/ 3% CaCl<sub>2</sub>, 0.25 pps Cello-Flake, 5 pps LCM-1, 0.4% FL-52 and 0.4% SMS (2.13 sks/ft<sup>3</sup>). Tail with 124 ft<sup>3</sup> (90 sks) Type III cmt. w/ 1% CaCl<sub>2</sub>, 0.25 pps Cello-Flake and 0.2% FL-52 (1.38 sks/ft<sup>3</sup>). If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC.

4.5" production casing: **30%** excess cement to achieve 100' overlap with intermediate casing.

Run 465 cu.ft. (235 sks) Premium Lite HS FM + 0.25pps Cello-Flake, 0.3% CD-32, 6.25pps LCM-1, 1% FL-52 (1.98 sks/ft<sup>3</sup>.)

**BOP and Tests**

Surface to Total Depth – 11", 2000 psi double gate BOP stack (Reference Figure #1).

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

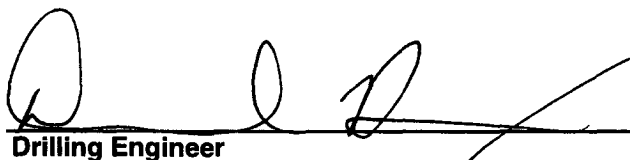
Prior to drilling out surface casing, test BOPE and casing to 600 psi for 30 minutes.

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.

BOPE tests will be performed using an appropriately sized test plug and test pump and will be recorded using calibrated test gauges and a properly calibrated strip or chart recorder. The test will be recorded in the driller's log and will include a low pressure test requirement of 250 psig held for five minutes and a high pressure test requirement held for ten minutes as described in Onshore Order No. 2 or otherwise noted in the APD. A successful BOPE test using a test plug is considered when no pressure drop occurs over the duration of the test. Test gauges and recorders must be of the proper range and resolution commensurate with the authorized test pressure. Where the intermediate casing strings are used, only one BOPE test will be necessary contingent upon the test being conducted to the highest approved test pressure to which BOPE will be exposed. Casing pressure tests must be held for 30 minutes with no more than 10 percent pressure drop during the duration of the test.

**Additional Information:**

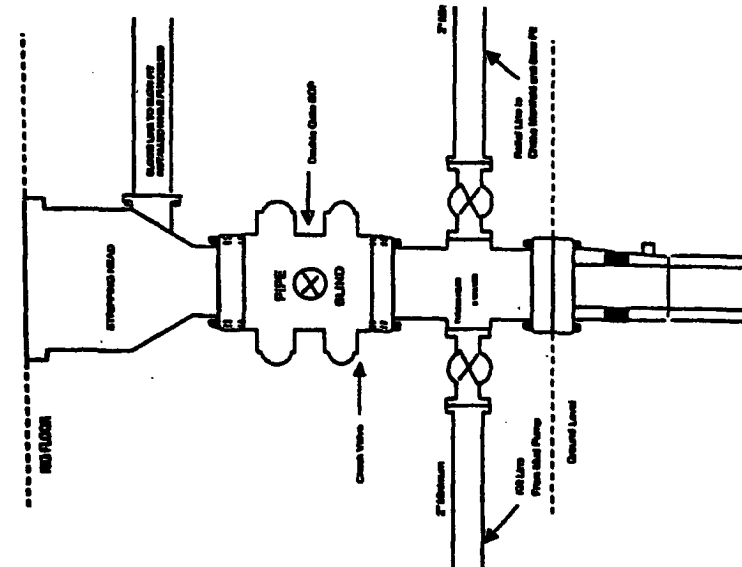
- This gas is dedicated to the East half of section 28.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.
- BHP is expected to be 2000 psi.

  
Drilling Engineer

5/1/06  
Date

# BURLINGTON RESOURCES

Completion/Workover Rig  
BOP Configuration  
2,000 psi System



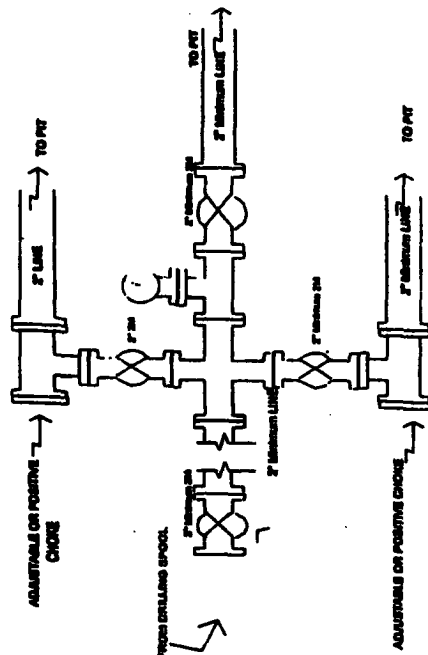
Minimum BOP Installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi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

Figure #2

4-20-01

# BURLINGTON RESOURCES

Drilling Rig  
Choke Manifold Configuration  
2000 psi System



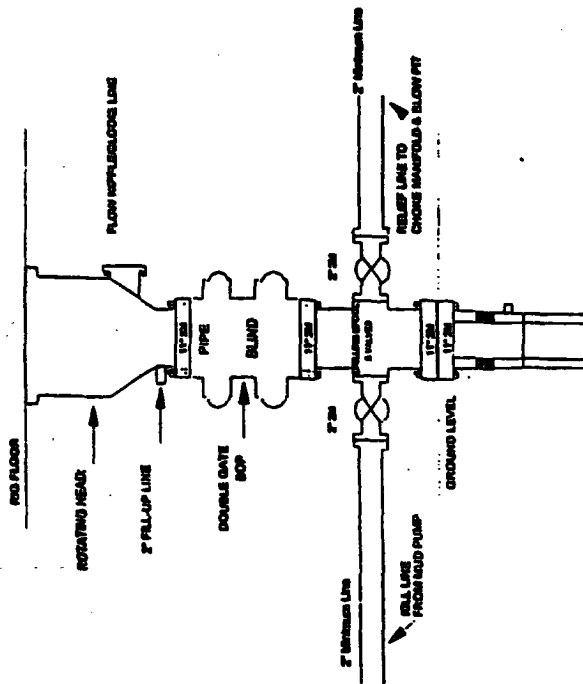
Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

4-20-01

# Burlington Resources

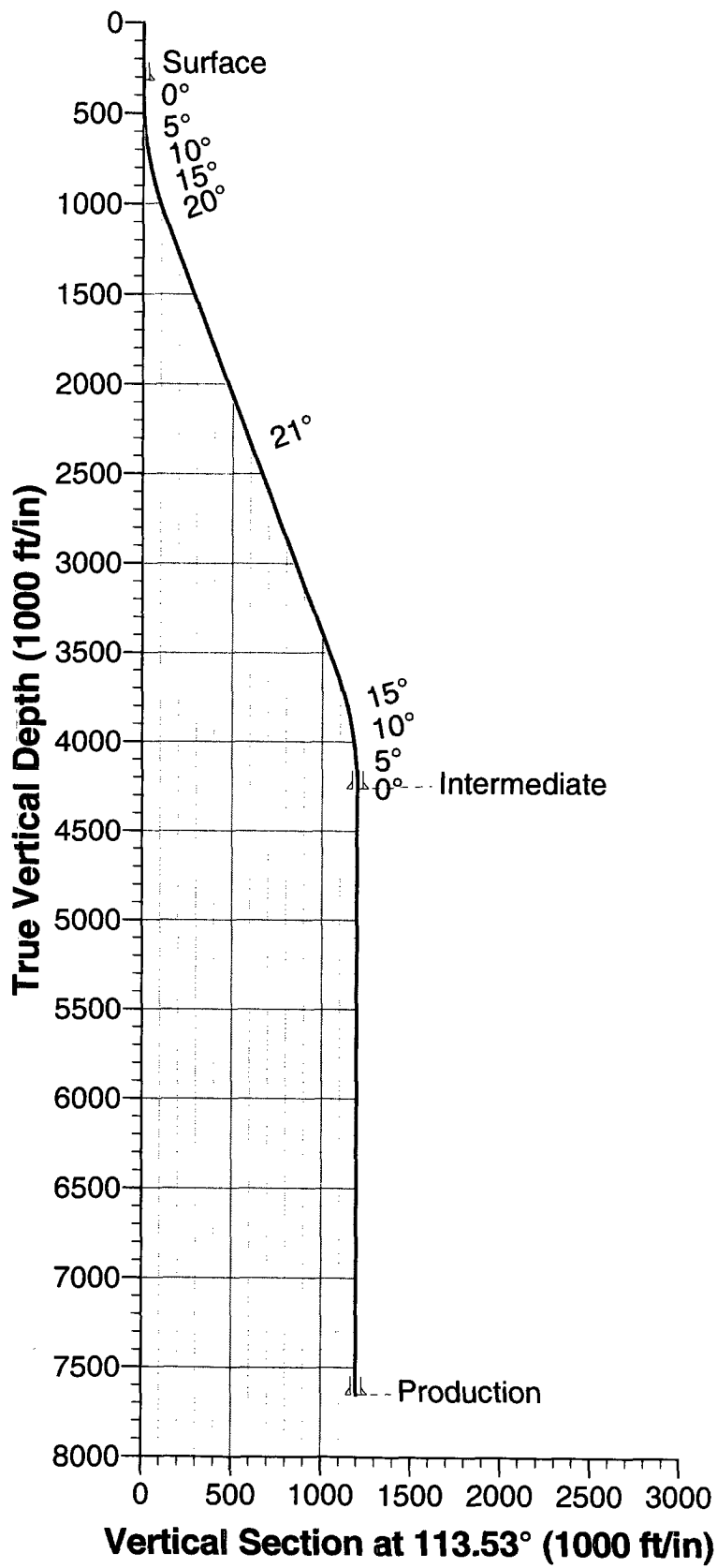
Drilling Rig  
2000 psi System



BOP Installation from Surface Casing Point to Total Depth. 11\"/>

Figure #1





**28-6 148N**